

SOUTHWESTERN MONUMENTS

MONTHLY REPORT



OCTOBER 1940

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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HEADQUARTERS

SOUTHWESTERN NATIONAL MONUMENTS
NATIONAL PARK SERVICE

COOLIDGE, ARIZONA

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HUGH M. MILLER, SUPERINTENDENT

<u>FIELD STATION</u>	<u>POST OFFICE</u>	<u>CUSTODIANS</u>	<u>1940 VISITORS</u>	<u>ACRES IN AREA</u>
1. ARCHES	Moab, Utah	Henry G. Schmidt	2,518	33,680.00
2. AZTEC RUINS	Aztec, New Mex.	Thomas C. Miller	10,550	25.88
3. BANDELLIER	Santa Fe, N.M.	Chester A. Thomas	13,689	26,026.20
4. CANYON DE CHELLY	Chin Lee, Ariz.	Charles D. Wyatt	2,733	83,840.00
5. CAPULIN MOUNTAIN	Capulin, N.M.	Homer J. Farr	35,100	680.42
6. CASA GRANDE	Coolidge, Ariz.	Albert T. Bicknell	12,877	472.50
7. CHACO CANYON	Chaco Canyon, NM.	Lewis T. McKinney	2,245	21,509.40
8. CHIRICAHUA	Dos Cabezos, Ariz.	Frank L. Fish	10,120	10,694.80
9. EL MORRO	Ramah, N. Mex.	Robert R. Budlong	1,593	240.00
10. GILA CLIFF DWEL.	New Mexico	No Custodian	80	160.00
11. GRAN QUIVIRA	Gran Quivira, NM.	Joseph H. Toulouse	2,494	610.74
12. HOVENWEEP	Cortez, Colo.	No custodian	352	285.80
13. MONTEZUMA CASTLE	Camp Verde, Ariz.	Earl Jackson	8,078	521.71
14. NATURAL BRIDGES	Blanding, Utah	Zeke Johnson	901	2,740.00
15. NAVAJO	Tonalca, Ariz.	James W. Brewer	513	360.00
16. ORGAN PIPE CAC.	Ajo, Arizona	William Supernaugh	9,775	330,687.00
17. PIPE SPRING	Moccasin, Ariz.	Leonard Heaton, act.	1,141	40.00
18. RAINBOW BRIDGE	Tonalca, Ariz.	No custodian	215	160.00
19. SAGUARO	Tucson, Ariz.	Don W. Egernayer	16,892	63,284.00
20. SUNSET CRATER	Flagstaff, Ariz.	D. Jones, in chg.	11,888	3,040.00
21. TONTO	Roosevelt, Ariz.	John Peavy	5,240	1,120.00
22. TUMACACORI	Nogales, Ariz.	Louis Caywood	7,287	10.00
23. TUZIGOOT	Clarkdale, Ariz.	Jack Cotter	6,125	42.61
24. WALNUT CANYON	Flagstaff, Ariz.	Paul Beaubien	12,258	1,873.16
25. WHITE SANDS	Alamogordo, N.M.	Johnwill Faris	54,498	143,227.47
26. WUPATKI	Flagstaff, Ariz.	David J. Jones	3,326	35,865.30
27. YUCCA HOUSE	Cortez, Colo.	No custodian	136	10.00
TOTALS			232,624	761,206.89

AREA, END TRAVEL YEAR 1940: 1,189.395 Sq. Miles

OPENING

By Hugh M. Miller, Superintendent

The Superintendent was absent from Headquarters office October 16 to 19, inclusive, and on October 22 and 23. One full week of this time was spent at the Inspectors' Conference at the regional office, Region III. The remainder of the first trip included a visit to White Sands National Monument with Mr. Charles L. Gable, Chief of the Park Operators Division, to consider the operator's problems there; one day in the regional office transacting various business affecting the monuments, and approximately two days in thorough field consideration of administrative and construction problems at Bandelier. A quick trip was made to Flagstaff on October 22 and 23 to participate in the investigation of a fatal CCC accident.

Approval of appointments to the vacant ranger positions at Montezuma Castle and White Sands National Monuments reduces to two the number of vacant ranger positions. The Headquarters office, normally employing seven people, lost two clerks during the month - one to the War Department and one to assignment at Petrified Forest National Monument. Work is approximately current in spite of this handicap (by dint of overtime on the part of all concerned), but it is hoped that replacements may be made expeditiously.

The situation with respect to CCC equipment is becoming acute. The camps began the fiscal year with a large proportion of old equipment which, in the interests of economy, should have been replaced, and on which maintenance and repair costs are unavoidably high. Tires alone to meet safety standards are costing roughly two-thirds of the total amount available under the rigid camp budgets. How this equipment can be shod and kept in safe operating condition for the remainder of the fiscal year is an unsolved problem of serious import to the entire CCC program.

A high percentage of all the regular employees of the Southwestern Monuments registered for military service on October 16 - every member of the fiscal staff, for example, and all but a very few custodians and rangers. It is, we think, not unpatriotic to hope that the laws of chance will take only a few at a time for active service. We didn't realize how young and bumptious we are until the draft came along to remind us.

Important legislation affecting the monuments received congressional attention during the month. Senator Hayden's bill revising the boundaries of Saguaro National Monument and providing for the acquisition of important private holdings, passed the Senate. Enactment of the bill into law will have the effect of correcting an anomalous situation of long standing and eliminating what are at present almost insuperable administrative difficulties. Senate Bill 4083 to change the designation of Organ Pipe Cactus National Monument and to permit mining therein passed the Senate September 30 and was referred to the House Committee on Public Lands October 2. Its ultimate passage would materially alter the problems of administration and use.

It is not, perhaps, amiss to comment on the Region III inspectors' conference held in Santa Fe during the month. Many park superintendents

OPENING (cont'd)

were in attendance. The conference ranked high in competent discussion, unflagging interest, and grasp of practical and immediate problems. Particularly gratifying was the "park-mindedness" of the fine group of inspectors and the constant recognition on the part of both inspectors and superintendents of a common purpose, equal footing, and united loyalty to the Service. Certainly this was one conference which was worth what it cost.

Visitor use at many of the monuments has been heavier than for October last year. Several field men reported October days on which they were as busy as they were in August during what is commonly regarded as the height of the travel season. Individual reports are borne out by the total of 28,542 visitors for the Southwestern group of monuments for the month of October, as compared with 22,522 for October 1939. Though it is too early to reach conclusions, a marked trend toward increased late season travel, in the Southwest at least, is indicated. Particularly in southern Arizona, hotel and guest ranch bookings are said to indicate a heavy winter season.

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CONDENSED REPORT

GIVING HIGHLIGHTS OF THE MONTH

Coolidge, Arizona
November 1, 1940

The Director
National Park Service
Washington, D. C.

Dear Mr. Director:

The Condensed Report for the month of October, 1940, follows:

TRAVEL

Station	1940		1939	
	October	Travel Year	October	Travel Year
Arches	168	168	155	155
Capulin Mountain	3506*	3500	3500	3500
Chiricahua	682	682	433	433
Natural Bridges	48	48	69	69
Organ Pipe Cactus	820	820	410	410
Rainbow Bridge	20*	20	20*	20
Saguaro	898	898	166	166
Sunset Crater	708	708	540	540
White Sands	3820	3820	1815	1815
TOTAL, Geol. & Biol.	10664	10664	7108	7108
Aztec Ruins	812	812	667	667
Bandelier	827	827	695	695
Canyon de Chelly	351	351	277	277
Casa Grande	947	947	696	696
Chaco Canyon	140	140	221	221
El Morro	94	94	131	131
Gila Cliff Dwellings	10*	10	10*	10
Gran Quivira	186	186	298	298
Hovenweep	30	30	10*	10
Montezuma Castle	634	634	501	501
Navajo	20	20	31	31
Pipe Spring	105	105	46	46
Tonto	262	262	471	471
Tumacacori	304	304	370	370
Tuzigoot	624	624	360	360
Walnut Canyon	876	876	725	725
Wupatki	303	303	279	279
Yucca House	20*	20	20*	20
TOTAL, Hist. Sites	6545	6545	5808	5808
TOTAL ALL AREAS	17209	17209	12916	12916
Last Month	28542	232624	22522	249721
*Travel Estimated				

CONDENSED REPORT (cont'd)

000 GENERAL

020 General Weather Conditions

Indian summer weather seems to have been general throughout the Southwest during the month of October. One or two storms, however, are reported from each of the monuments. Aztec Ruins suffered a terrific hail storm, worst in the memory of the custodian; El Morro reports snow; Capulin was hot and dry; and Casa Grande had several dust storms. Torrential rains at Arches, Organ Pipe Cactus, and Navajo damaged monument roads.

100 ADMINISTRATIVE

120 Monument Inspections

Park Service officials inspected many of the monuments during the month. Region III landscape architects and project control personnel visited Arches (P.225), a protection patrol and inspection of damage done to the ruins by the elements was made at Hovenweep (P.227), Washington and Region III archeologists, and Region III administrators paid Gran Quivira an inspection visit (P.229), Region and Washington engineers inspected developments at Chiricahua (P.230). Auditor Glenn of the Washington office visited Headquarters and Tumacacori. (P.232). Regional and Washington engineers made a ruins stabilization inspection of Tonto (P.232). A number of Regional and Washington officials were at Bandelier (P.237). At Organ Pipe Cactus, the Regional Biologist investigated wildlife conditions, Regional landscape architects checked over the proposed headquarters buildings site, and public roads administration officials studied the route of the proposed highway (P.239). At White Sands, Regional and Washington engineers checked construction (P.242). Region and Washington officials stopped at El Morro (P.246), and the Regional Director and Assistant visited Capulin Mountain (P.249). Inspection visit of several Washington and Regional officials is recorded on page 255 of the Chaco Canyon report.

140 Status of Private Lands

Wupatki - County records were searched to clear up titles, and the question of releasing lands for a Federal irrigation project were studied (P.240).

150 Plans, Maps, and Surveys

Arches - A detailed boundary survey is reported in progress on page 224.

Canyon de Chelly - Difficulties are encountered on the boundary survey being made at this monument (P.228).

Pipe Spring - A new approach road route survey was begun (P.234).

Bandelier - Engineers made a reconnaissance for the proposed sewage spraying system. The fire atlas is fifty percent completed (Pgs 237-238).

200 MAINTENANCE, NEW CONSTRUCTION, AND IMPROVEMENTS

210 Unusual Maintenance

Organ Pipe Cactus - Fences destroyed by flood replaced (P.239).

El Morro - Trails repaired following plant growth injury, and inscriptions waterproofed (P.247).

CONDENSED REPORT (cont'd)

Saguaro - Needed repairs on residence made (P.253).

230 CCC Construction and Improvements

Arches - A start was made on the headquarters road project (P.225).

Pipe Spring - Razing of old camp buildings completed (P.234).

Bandelier - Plastering and floors of all units of Cabin E group finished, and 1200 feet stone guttering completed (P.238).

Walnut Canyon - Walls of comfort station completed to plate line. One-third mile of boundary fence finished (P.244).

Wupatki - Basement excavation advanced by removal 250 cubic yards of rock; and 800 cubic yards of earth placed in driveway fill (P.244).

240 Improvement to Monument Approaches

El Morro and Saguaro - approach roads in best condition in experience of custodians.

300 ACTIVITIES OTHER AGENCIES

310 Utility Operators

Bandelier - Operator closed hotel for winter on November 1 (P.237).

320 Cooperating Government Agencies

Arches - Boundary survey being made (P.224).

Organ Pipe Cactus - Customs officers man contact station and make visitor counts (P.239).

330 Cooperating Non-government Agencies

Walnut Canyon - Red cross first-aid station set up on monument (P.243).

Saguaro - University of Arizona aids in study of bacterial infection of giant cactus (P.251).

350 Donations and Accessions

Aztec Ruins - Prehistoric deer antlers received (P.227).

Gran Quivira - Many repaired books and several projection slides received from Western Museum Laboratories (P.229).

Tumacacori - New books and new map case received (P.231).

Bandelier - Map case and safe arrived (P.237).

Montezuma Castle - Herpetological specimens and books added to collections and library (P.253).

400 INTERPRETATION

410 Lecture and Guide Service

Aztec Ruins - A projector was purchased and lecture service started (P.226).

Wupatki - Tie-in with Hopi Indians at Moencopi made in effort to provide visitors with opportunity to see Indian pueblo under intelligent native guidance (P.240).

Chiricahua - Service curtailed through lack of personnel.

White Sands - Lack of man power made interpretative service to all visitors impossible (P.242).

El Morro - An interpretative outline for this monument begins on page 270.

All areas - Comparative visitor contact figures appear on page 261.

CONDENSED REPORT (cont'd)

420 Museum Activities

Bandelier - Finish-up of displays resumed (P.238).

All areas - Photos were taken of empty museums in an effort to justify additional funds for museum preparation (P.258).

430 Research and Observations

431 Botany

Bandelier - Cataloging of herbarium specimens was completed (P.238).

Saguaro - Study of bacterial disease of giant cactus was begun (P.251).

Headquarters - Herbarium project continued for the field (P.257).

432 Zoology

Montezuma Castle - Bass and muskrats reported in creek (P.254).

434 Archeology

El Morro - Report on a new inscription is being prepared by the custodian (P.247).

Wupatki - The type sherd collection was completed (P.240-241).

Gran Quivira - Proposed survey plan outlined on page 267.

Bandelier - Report on artifacts found in stabilizing part of Otowi ruin appears on page 274.

Tuzigoot - Baby burial discovered and exhibit made (P.254).

Chaco Canyon - The Mobile Unit continued work on pueblo Pintado and Wijiji (P.256).

500 PUBLIC USE OF MONUMENT FACILITIES

510 Increase or Decrease of Travel

The normal seasonal travel decrease materialized as anticipated, but these numbers showed a heartening increase over October 1939. Comparative figures appear on page 219. Only El Morro, Chaco Canyon, Gran Quivira, Natural Bridges, Navajo, Tonto, and Tumacacori showed a drop below their last October records, and gains made by other areas much more than offset the small losses at these few monuments.

520 Newsworthy Visitors

Canyon de Chelly - Several scientists and school groups visited this monument (P.229).

600 PROTECTION

610 Ranger Service

An interesting discussion "Protection versus Use" by Custodian Thomas appears on page 271.

630 Wildlife Protection

Chiricahua - Two parties of hunters were removed from the monument (P.230).

Saguaro - Hunting patrol was maintained during deer season (P.251).

650 Ruins Stabilization

Aztec Ruins - Capping was completed on three walls, and wall repair was started (P.226).

Gran Quivira - A check was made on previous stabilization work (P. 230).

FIELD REPORTS

FROM THE MEN ON THE JOB

ARCHES

By Henry G. Schmidt, Custodian
Mcab, Utah

Visitors this month, 168; Travel year to date, 168.

Weather: The first part of October continued to be rainy and windy; the past week or ten days, however, has brought us some very fine autumn weather with 10 days of rain, 12 days partly cloudy and cool, and nine days clear and warm. The 10 days of rain were unexpected after the deluge experienced in September. At this writing, the weather man seems to have regained his equilibrium and promises to give us the usual number of warm, sunny days, with the spiciness of Fall, for the next month or two. And with this prospect in view, we are fairly assured of a continued increase of visitors from the western slope of Colorado and nearby Utah towns, and also, increased production from our CCC Camp.

Roads: Continued maintenance by the CCC crew has kept the road to the Windows Section in fair condition and will put the road in fine shape within the next 60 days, provided there are no serious washouts in the meantime. The heavy rains did some very serious damage to the section of road between the State highway No. 160 and the Willow Springs contact station. The CCC maintenance crew has repaired most of this damage and will now be able to work at smoothing out the rough places on the remainder of the road.

The road into Devil's Garden and the Delicate Arch, via Salt Valley, is still impassable. However, a minimum of maintenance work will enable the occasional visitors to those sections to travel without too much difficulty and allow routine patrols into the area.

Visitors: The travel count in the Windows Section has increased slightly over October, 1939, in spite of the inclement weather and the uncertain condition of the road. A tabulation of all visitors shows that 45 people from Utah and 123 out-of-state visitors made the trip to the monument during the month. Thirty-one were registered from California and 30 from Colorado. Three parties and 11 people from California made horseback trips into the Devil's Garden section, and all reported the trip to be well worth while and expressed their appreciation of the fine service given by the local stockman who packed them through.

Twenty-five parties were conducted through the Windows Section, with an attendance of 96 people; four parties, with 11 people, were contacted at the Willow Springs station, making a total contact count

ARCHES (cont'd)

of 107 people and a total contact time of 1535 minutes.

Park Service visitors included Jerry Miller, Harvey Cornell and F. Vernon Randau, Raymond Higgins, Bernard Douglass, all of Santa Fe, New Mexico; Horace Miller, Fruita, Colorado; Peter DeGelke and Wm. Carnes, Washington, D.C.

Project Progress for the Month: Maintenance of the Windows Section road required much of my attention during the month. The CCC maintenance crew is becoming quite efficient at this work and was of material help in keeping the road open during the heavy rains. The first five miles of the road has been maintained daily during the week and is now in fair condition.

Five man days were spent on the project to place bronze markers at each of the arches. We have now completed this work in the Windows Section. A compilation of statistics shows that 11 markers have been placed and the dimensions of the arches determined and registered in a log book. It has given me a good idea of the time required to complete this project and I will consider the work speedily done if all the known 81 arches are marked and measured within the year.

Routine patrols on the Windows Section road were made. Reports and correspondence have been brought up to date.

Several new kodachrome shots were made in the Windows Section, but the Custodian was forced to take a swim in the Colorado River and, unfortunately, the camera was on his person. It is doubtful whether the film withstood the ducking as well as he did.

Four road signs were remounted on posts and are ready for placement.

Projects for the Ensuing Month: Continuation of road maintenance on the Windows Section road is scheduled, and some maintenance work on the road into the Devil's Garden. The placing of bronze markers at arches in the Devil's Garden and Courthouse Towers. Placement of road signs already mounted and the mounting and placement of additional signs as needed. Routine patrols of all sections of the monument. One hundred cedar posts will be cut and pecked, to be used as standard upon which to mount boundary and protection signs. This work will be carried on with the assistance of the CCC crew.

Cooperative Project with another Federal Agency: A party of General Land Office surveyors, under the direction of U.S. Clark, is at present making a survey of the Monument boundary. Old and dilapidated corners are being rebuilt and new corners located. Mr. Clark has agreed to set the boundary markers now being prepared, and when the job is completed the boundary markers will be in place at points $\frac{1}{2}$ mile apart on the entire boundary. A definite survey of the boundary and the marking of the same is of vital importance and a need of long standing at Arches. The fine cooperation of the General Land Office party in this work is much appreciated.

General: Regional Landscape Architect Cornell, Associate Landscape Architect Jerry Miller and Assistant Chief Wm Carnes, Branch of Plans and Designs, made an inspection trip through the Headquarters area and the Windows Section during the month.

Mr. Peter DaGelleke, Assistant Chief of Projects Planning, and Mr. F. Vernon Randau, Chief Project Control Director, were here on an inspection tour. They inspected projects under construction in the headquarters area and conferred with the custodian and project superintendent regarding the work of the CCC camp.

The prospectus of the Arches museum was returned to headquarters with corrections and suggestions noted thereon.

Assistance was given Dr. J.W. Williams, of Moab, in compiling and typing a list of articles, historical, geological, and ethnological, which he plans to donate to the Arches National Monument museum.

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ARCHES CCC

By Walter W. Welton, acting
proj. Sup't., Moab, Utah

Work on the project has improved considerably in the past month. Jobs completed are (1), Concrete Floor in Blacksmith Shop; and (9), Camp Entrance Road. The steel for the Multiple Plate Arch Culvert is erected and we hope soon to extend our road fill across it, thus connecting up two of the three sections of our headquarters road that are partially complete. Suitable rock has not been found in quantities for the masonry headwalls or for building construction to date.

Due to an administrative error in our purchasing department we are still without rock hammers. Formal bids are being received at Coolidge.

We are or were fortunate in having the services of a very competent young blacksmith, Frank Toth, for 13 days this month. However, he was called back to New Jersey where his brother was seriously injured. His return is doubtful.

We have a copy of the plans for the custodian's residence, and bills of materials and job applications are being prepared.

We also have plans on the Monument Entrance Road, Section 1-A, but approval of job application has not been received to date.

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AZTEC RUINS

By Homer F. Hastings,
Aztec, New Mexico.

Visitors this month, 812; travel year to date, 812.

General: From the standpoint of its effect on the monument and surrounding territory, the outstanding event of the month was a terrific hail storm which struck at 4:45 P.M. on September 30. Most of the hail stones were the size of golf balls and some more than two inches in diameter were reported. They riddled roofs and the tops of cars,

AZTEC RUINS (CONT.)

broke windows, killed many chickens and turkeys, and seriously damaged the apple crop. It is estimated that at least \$10,000. damage was left in the wake of the storm. After a few days rain, which followed the hail storm, the weather cleared and has developed into a perfect fall with no killing frost as yet. Travel has been exceptionally good and has shown a marked increase over that of the same month last year.

PERSONNEL: Custodian Miller is taking 30 days annual leave beginning October 13. He and Mrs. Miller attended the I.O.O.F. Grand Lodge meeting in Roswell and they are now visiting with friends in Arizona. Eugene R. Current is helping on Sundays and on the ranger's day off.

PARK SERVICE VISITORS: Roland Richert, Dale King, Charles Wyatt, Jesse Nusbaum, Lewis T. McKinney, Herman P. Phelps, Guy H. Rush, Claire J. Mueller, Gordon Vivian, V.V. Peterson, E.T. Scanlon, A.E. Douglass, and Johnwill Faris and family.

PUBLICITY: A mimeographed request for comments on the guide service is handed to each party of visitors and they are asked to tell their friends about the monument. We find our visitors are interested to learn that this monument is open every day in the year since so many parks and monuments are closed part of the year.

MAINTENANCE, IMPROVEMENTS AND NEW CONSTRUCTION: Roofs damaged by hail on the custodian's garage and residence and the roof of the museum and administration building have been repaired. New flashing was applied on the garage and residence roofs and a part of the garage roof was replaced. All holes were patched in the museum roof and a broken window was repaired. Damage to the courtyard from rains has been repaired. All channels washed by the run-off have been tamped full of earth. Cracks that had developed in the visitor trails have been filled, water-proofed, and sanded.

RUINS STABILIZATION: Capping the walls in the following rooms has been completed:

North wall of Room 116, South wall of Room 101, South wall of Room 111

Repair of the south wall of Room 115 is now under way. Work has been somewhat hindered by storms and by the fact that one of our two Navajo workmen was absent for a week at a squaw dance. A total of 46 man-days has been spent during the month.

INTERPRETATION: A projector for 35 m.m. slides was purchased and its use has been well received. Thirty-six slides presenting views in various Southwestern National Monuments have been received from Headquarters and we have a collection of several views in this monument. Several organizations have asked us to plan to meet with them and show this fine collection.

USE OF MONUMENT FACILITIES BY THE PUBLIC: A total of 812 people in 276 cars visited the monument. There were 100 "turn-arounds", (those

who drove on and off the parking area without stopping) and 146 who stopped for information only. This leaves 596 who were guided through the ruins. 432 tickets were sold, and the other visitors were under 17 or were admitted by waiver. The number of people actually guided through the ruins shows an increase of 103 over the number for the same month last year.

YUCCA HOUSE AND HOVENWEEP NATIONAL MONUMENTS: On October 9 Custodian Miller inspected Yucca House and Hovenweep National Monuments. At Hovenweep he visited the Hackberry, Holly House, and Hovenweep Castle groups. Recent heavy rains had done considerable damage to roads and to the ruins. The road was badly washed between the north boundary of the Navajo and Ute reservation fence. In some places where the road was completely gone it was necessary to make new crossings over the arroyos. No new evidence of vandalism was observed. A check of the visitor register showed that 30 people had visited the monument coming from New York, New Jersey, Utah, Colorado, Oklahoma, and New Mexico.

Roland Richert left some directional signs for Yucca House and Hovenweep National Monuments on September 29 and continued on his way to Headquarters for the termination of his seasonal appointment as Roving Ranger. Some very good reports concerning Ranger Richert's work have come to this monument during the past season.

EQUIPMENT AND SUPPLIES: Ranger Wyatt delivered Chevrolet dump truck No. 1234 from Headquarters.

A new safe was received, and after removing the office door and door jamb, it was finally squeezed inside. Two metal waste receptacles have been received and one was placed in each of the rest-rooms.

WEATHER STATISTICS:

Max. - 81 on Oct. 20	6 partly cloudy days
Min. - 32 on Oct. 22	4 cloudy days
20 Clear days	1.26 inches of precipitation

The hail storm on September 30 lasted only 20 minutes, but it was the worst in the memory of early settlers. The hail stones were solid ice and averaged one and one-half inches in diameter. They fell thick enough to cover the ground.

ACCESSIONS: A five-point set of deer antlers, found in the ruins during excavation by Earl H. Morris, was donated to the monument. This is possibly the finest set of prehistoric antlers in existence and we are glad to add it to our collection.

ROUTINE AND CONTINUING PROJECTS: Buildings and grounds maintenance will be continued and now has come the time when great quantities of fallen leaves will have to be removed. The crew of two Navajos will continue the stabilization of the ruins and we hope to complete as much as possible before freezing weather begins. Guide service will be maintained in the ruins and museum.

CANYON DE CHELLY

By Quintin Bradley, ranger
Chin Lee, Arizona

Visitors this month, 351; Travel year to date, 351

General: Travel conditions have been ideal for Canyon De Chelly during October. Nearly every day has been clear and warm and the canyon is more beautiful than ever. With the cottonwood leaves turning a golden color, a stream of clear, cool water flowing through the canyons, hundreds of Navajos roaming about, plus the beauty of the canyons and ruins, it is no wonder that tourists marvel and wish they had planned a much longer stay.

A night chant or commonly called "Yeibichai" dance has been going on, nearby. Sand paintings, sweat baths, songs and dances were climaxed Saturday night when 2,000 Navajos and many whites witnessed the final ritual.

Weather: The maximum temperature was 78 degrees on October 8; the minimum was 34 degrees on October 19. We had only one day of rain during October and that was on the 5th when .45 inches was recorded. As a rule the days have been clear and sunny, the nights crisp and cool.

Travel: A total of 351 visitors are recorded for this month which is an astounding increase over last years 277. This month's travel figures even surpass last month's total of 342, which was considered very good at that time. Field contacts were made with 106 people in 37 different parties, and in the office 142 people in 47 different groups. Total contact time-4400 mins. The roads into the monument are in good condition now, in fact the majority of visitors are overjoyed in finding the roads as good as they are, especially after being warned in nearby towns as to the "horrible" shape the roads are always in. Travel into the canyon was impossible early in the month, but in the latter half of the month numerous cars have been accompanied.

Maintenance and Projects: Last month's heavy rains did a very good job of washing out parts of our trail leading down to the White House. Parts of the trail were rebuilt and other places repaired. The trail is now in good shape. Parts of the road along the rim have been repaired, but it could still use a little grading. The pump motor went on the blink, but after a cleaning seems to be working OK. Mr. John L. Warboys, cadastral engineer, has a crew of 18 men here on the monument surveying the boundary line. So far they have had some trouble in locating corners. It should take several months to finish this project.

Wildlife: On each trip into the marmot area, close watch was kept, but no sign of said marmots have been found. I took a picture of some marmots and asked some of the English speaking Navajos of this area if they had ever seen that kind of an animal, and all said no. Cozy McSparron, who

has been going back and forth through this area for the past 25 years, states he has never seen one on the monument. I'm afraid I'm beginning to lose faith.

Visitors: Lloyd Smith, who has been a naturalist at Petrified Forest National Monument, Dr. T.B. Nobel, noted surgeon and photographer; Dr. Morris Steggard, archaeologist, recently from Yucatan; H.S. Bell, prominent geologist from Cal. Tech; a group of students and instructors from the Sandia School in Albuquerque, New Mexico, and Howard Stagner, geologist and naturalist from Petrified Forest, visited de Chelly.

SWIM

GRAN QUIVIRA

By Joe Toulouse, Jr., custodian
Gran Quivira, New Mexico.

Travel for this month - 186; travel year to date - 186.

NPS Visitors: - Eric Reed, regional archeologist, and Dr. Art Kelly of the Washington Office were in on October 5. An inspection was carried on in the absence of the custodian on October 16, by Regional Director Tillotson and Milo F. Christianson of the Region III offices.

Noteworthy Visitors: Floyd Studer of Amarillo, Texas, an outstanding amateur archeologist was past on October 6 with a friend. A pleasant time was experience by Mr. Studer and the custodian, who have long been corresponding but have been unable to contact personally.

Weather and Roads: Exceptional fine Fall days have been experienced at the monument for a goodly portion of the month; almost makes one forget that trouble are around the world. Roads were poor all month, but not necessarily the fault of the road crews who graded it late this period. The road has been taking an awful beating from the heavily loaded bean trucks. Highest temperature during month was 79 degrees F., and lowest was 30 degrees F.

Accessions: The remainder of the kitchen equipment was received early in the period. Repaired copies of Kubler's "Religious Architecture of New Mexico" and Hackett's "Historical Documents..."; as also 21 kodachrome slides were received from Berkeley during the month. Copies of Hammond's "Coronado's Seven Cities" and "Native Woody Plants of the U.S." were received for the library. Two 5 x 8 card files, a pint of Duco cement and a quart of thinner, as also a copy of New Mexico Historical Quarterly were acknowledged.

Routine and Continuing Projects: The kitchen of the residence is now completed and 50 percent of the bathroom has been finished. During the month one get together with the Mountainair Rotary Club was experienced and contact was made with the Mountainair Superintendent of Schools for future contact work there. One official trip was made to Coolidge to ferry the

pickup there for much needed repairs. Also a complete going over was given the "New" Mission in company with "Doc" Smith to check on stabilization work carried on under his time along with the Boss' work - this will lead eventually to a complete photographic record as to what was done previous to our attempts this last fiscal year in this line of work. Further checking of the telephone right-of-way between the Monument and the Forest has resulted in certain new factors having to be taken into account during the month, but progress is seen on this project. During my absence in Coolidge, the road maintenance crew graded the entrance road. Since return to the monument, work upon washing and repairing of pottery gathered up in the "Museum" room has been progressing well and has disclosed a number of very rare late pieces of pottery several of which are restorable, making an unique collection. Cataloging has kept up with the material cleaned and repaired. On October 27 we began the pumping of water suggested by Regional Engineer Diehl and Superintendent Miller to see if any change in chemical content would be experienced.

Projects for Ensuing Month: We will attempt to continue work on the archeological materials, cleaning and repairing. Shall make an effort to erect a new set of clothes lines, as the present ones are rather tacky. It is expected that contacts with schools will be attempted during the forthcoming period - several letters have been mailed to school superintendents. Winter is just around the corner; consequently, we are beginning to put things in ship-shape condition so as to weather the storm.

SWNM

CHIRICAHUA

By Frank Fish, custodian,
Dos Cabezas, Ariz ona.

Visitors this month, 682; travel year to date, 682.

Visitors still show an increase over the corresponding period of last year. Out-of-state guests numbered 255, an increase of 122. Many people stop at the office and express a wish for some one to go with them, but due to lack of help it is impossible to give them the service desired. Educational contacts thus have been curtailed.

The hunting season opened on October 16 and to date two parties have been removed from the area around Benita Park. They have been told by the local game warden to come in that way and hunt north of the monument. In as much as they are using the monument as a base for hunting, the parties were read the rules and regulations and removed from the area.

On October 19 and 20, the Tucson Natural History Club under the leadership of Mr. Wright and Garvin Smith, assistant forest supervisor, visited the monument and were conducted on a hike through Echo Canyon by the custodian.

National Park Service Employees: Engineers Burney and Diehl looked over

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the road and buildings during the month. Don Eggermayer of Saguaro way brought over a few tools this month, donated by Coolidge. After receiving them we now have a fine collection of "Idiot Sticks".

Accessions: Nine bound volumes of the Southwestern National Monuments monthly reports, waste paper basket, one case antifreeze, shower curtains, and brooms and brushes were received.

Maintenance: Rewiring of the basement in residence No. 3, pouring bitumens around all pullboxes on the power line after finding water in three boxes were the maintenance jobs. The D.C. current jumped through the insulation in two separate places during the month

SWNM

TUMACACORI

By Louis R. Gaywood, custodian
Box 797, Nogales, Arizona.

Visitors this month, 304; travel year to date, 304.

General: There were two good rains during the first part of October which greatly helped range conditions, making a good stand of fall grass for winter feeding. Although there was a hot spell the latter part of October, the weather toward the last of the month portends the coming of winter.

Travel has not increased, no doubt because of the warmer weather, but record attendance is looked for this winter. Hotels, courts, houses, and apartments in Tucson are full with many more visitors to come.

Maintenance: Routine maintenance of museum, mission, and grounds was carried on during the month by Ranger Harkins. Guide service was complete with no visitors on the unguided list. Shrubby and plants were watered.

New Equipment and Supplies: Five new signs were received and four have been placed. These signs are beautifully made according to specifications furnished by the regional office and fill in a long felt need at the monument. A map and blueprint file case was received and placed in the work room. It too is a fine piece of work.

The monument library is steadily being added to, thanks to the splendid cooperation of the Southwestern Monuments Association. Two new volumes, "Loza Blanca Y Azuela", on the pottery making of Puebla, Mexico, were received. These, added to others received in past months, necessitate a book case of good proportions.

Photography: A request was received from the U. S. Travel Bureau of New York for 2x2 Kodachrome slides of The Missions and cactus areas of southern Arizona. Kodachrome was furnished by them and the pictures are being taken as rapidly as possible. A trip was made to San Xavier and several taken there. The cloud displays of recent days are very good for color work.

Completed Projects: The new signs received were placed. The brick walk adjacent to the parking area was repaired after some sinking from summer rains. A box was built around the inlet pipes for the fuel tank in front of the museum.

Projects for the Ensuing Month: A service road gate will be constructed and placed in position as soon as possible due to the poor condition of the present gate.

Visitors: Custodian and Mrs. Eggermayer were here on September 30. Chief Auditor Glenn and Mr. and Mrs. Parke Soule and Peter came on October 10. Fred Wynn of the Forest Service on October 4, and Park Ranger and Mrs. Wyatt on September 27 were visitors.

Personnel: Custodian Caywood returned to duty on October 21 after a month of annual leave spent in Long Beach, California.

SWNM

TONTO

By John Peavy, custodian,
Roosevelt, Arizona.

Visitors this month, 262; travel year to date, 262.

Just one year ago today I submitted my first monthly report to The Boss. While I have witnessed a great many changes in personnel and administration since then, I still feel as I did on my first day of initiation, that this is the only organization that I have had the privilege to be a part of whose work is never dull and whose scope includes unlimited possibilities.

During my first week at Tonto, I found it hard to make my lecture tour last one hour. Now a year later I find that the many interesting phases of Tonto can barely be touched upon in that short period of time. Only the other day an interested visitor, after spending four hours in the ruins, said that he was coming back in the near future.

Travel: While travel has taken a decline this month, the number of extremely interested visitors has increased. Fifty-seven parties including 184 visitors were conducted to the Lower Ruin, six parties including 18 persons visited the Upper Ruin, and 57 parties including 167 individuals visited the museum.

N.P.S. Visitors: Regional Engineer John Diehl and Sr. Engineer A. W. Burney made a brief visit on October 4.

Anticipated Publicity: Roy C. Beckman, director for National Publicity of the City of Phoenix Chamber of Commerce, and George W. Issacs, Mgr., of the Convention Bureau for the City of Long Beach, California, were interested visitors and requested a supply of informational leaflets on this monument and the SWM map folder.

Visits to Outside Areas: We finally made a long planned trip to Montezuma Castle. We had a very nice visit with Custodian and Mrs. Earl Jackson, and Ranger and Mrs. Bowen. Montezuma Castle is all that it's cracked up to be. Two hours were spent in the cliff dwelling and its interesting features were barely touched upon. We hope to take this trip again when our time is less limited. We stopped at Tuzigoot the same day, but arrived too late to contact the custodian.

Roads and Trails: The entrance road and trail to the Lower Ruin are in fair shape. The lower half mile of the Upper Ruin trail was washed out by a short flood down the canyon. Four man-days were spent on maintenance of road and trails during the month.

Routine and Continued Projects: Continued maintenance of roads and trails, and guide service will go on as usual.

Since I have been getting a more interested type of visitor, as the cool-weather season advances, I am stimulating more trips to the Upper Ruin.

—XXXXX—

Congratulations on your first year, John! And thanks for the good words indicating that you belong to the organization in spirit as well as on paper.

HMM

—SWNM—

PIPE SPRING

By Leonard Leaton, acting custodian
Moccasin, Arizona.

Visitors this month, 105; travel year to date, 105.

We have a lot of readjustment to make yet before we are fully settled in our new home and the monument work clicking as I want to see it. As you know by now, the custodian and family moved back to the monument October 9, after four and one-half years of leave, so to speak. (We have always called this our home even tho we have a place at Moccasin.) Everyone is happy over the move, even tho there are several more days of carpenter work on the old CCC building before winter sets in.

A family sure does accumulate a lot of stuff in a few years. The wife and I thought we had plenty of room here, but we are beginning to wonder just where we are going to put everything, but we are gradually getting them tucked away and in place. I hope that by the end of next month we will be settled and have found our stride in our monument work.

Travel: Our travel has been a little better than a month ago, with the majority coming from our of the state. I gave guide service to 77 in the fort as against 60 for last month; 28 received no guide service since they were mostly local people killing time waiting for some one to show up here; 13 people were contacted on the road. These people asked about roads and for other local information.

One lecture was given outside to the new enrollees of the CCC camp

just south of the monument, on October 23, with 97 in attendance. The number of visitors and contacts for the month is 215 as compared to 103 for September. There were 130 camping days in the camping area this month. The last camper moved out on October 20.

Weather: For the most part we have had very pleasant fall weather, clear and warm with very little frost, just enough cold nights to turn the leaves and make them fall covering the ground and ponds so one can hardly tell where one begins and the other starts.

My weather record shows that we had the following: 20 clear days; six partly cloudy; and two cloudy days, with rain the night of October 4 lasting most all night.

Construction & Destruction: Some time was spent the first part of the month fixing up the house so that we could move into it. The custodian also rebuilt the boundary fence on the northwest corner of the monument where the Grazing Service had their old garage. To complete the job I have to put on one wire and top the posts.

I replaced the two metal signs in the camp ground with two wooden signs I made last summer (have several other signs to place when Al Kuehl designates the places).

I had the Mountain State Telephone & Telegraph Company install a telephone in the residence October 12 so that I would have some way to get in touch with the outside world without using the car.

The remainder of the sewer line trench was staked out the other day for work this coming month.

The destruction part ended October 2 when Mr. Jordan and crew finished taking down the old CCC buildings and cleaning and leveling the grounds as best they could with rakes and shovels; on October 4 the boys were sent back to the Mt. Elden camp. Since then three convoys of trucks have come in for lumber. One more trip will clean up all the lumber that is to come to Mt. Elden camp. I am keeping some for use on the monument, to build a small garage and other jobs that might require lumber.

Maintenance: The custodian has tried to keep things caught up and in good condition throughout the month, removing dead weeds and trash from the roads and camping area; had a team here on October 21 to mow the weeds and grass that was full of dried clover and milkweed. Cleaned up around the garage and gas house. The big job will be the cleaning up of the old CCC campsite when all the lumber is moved and to break up the ground where it is packed around the building and roadways so that the native vegetation can come back.

Roads: Survey work on the road west of the monument was began October 14, following the old Indian Service survey made some six or seven years ago, following along just north of the present old road. Construction started with two cats and graders working from 6 AM to 6 PM every working day. The road is to be 20 feet wide and graveled. Road construction is also going on west of Fredonia and at Short Creek. It is planned that the three grazing CCC camps are to build the road from Fredonia to the Utah line west of Short Creek some 35 or 40 miles. Should we have an

open winter, the roads to the monument next summer ought to be in good condition. All washes are to be bridged or culverts installed, with the road surface graveled.

Personal: I regret to report that my boy, Shirwin, has been sick with a form of typhoid fever. Dr. Marsh of the CCC camp attended the boy and two blood samples were sent to Flagstaff for testing and reports came back that it was a form of typhoid but not the regular typhoid germ. The boy is now on the road to recovery and since the fever has left he is as hungry as an old bear. Where he contracted the disease I have no idea, tho the doctors here have been expecting the typhoid fever to break out after the late storm we had.

In closing, I am happy to say I feel much better about my job, and do not worry about what might happen to the place at nights and I really want to put over the work in the right way. I am sure I can if I but plan the work and then work the plan, instead of the plan working me.

----- XXXX -----

Fine! Leonard. We are glad you are back on the monument; hope we will find the way to build you a permanent house soon. - HMM.

-----SWNM-----

NAVAJO

By J. W. Brewer, Jr., Custodian
Tonalea, Arizona.

Visitors this month, 20; travel year to date, 20.

Visitors: Seventeen visitors in six parties used the Sandal Trail; six visitors in two parties made the canyon trail trip to Botatakin; and one party of three was guided to Inscription House.

Weather and Roads: High for the period was 76 degrees on September 26; low was 37, reached on three nights the first part of October. Precipitation totaled 1.95 inches; over one inch of rain fell the night of October 4 - since that storm most of the days have been clear and warm with no wind - perfect Indian summer weather. The rain of the 4th washed out the bridge across Shonto Wash and made deep cuts several places between Shonto and Cow Springs; now however the roads are all passable, if a bit rougher than before the late rains.

Official Visitors: Davey and Corky Jones of Wupatki brought Mr. Buchenberg on the 17th; Mr. Buchenberg is a Friend of the Service Extraordinary.

Monument Inspection: The Inscription House area was inspected on October 18; Davey, Corky, Mr. Buchenberg, and Tsegi Sal. all joined in on this inspection. Conditions at this portion of the monument remain as last reported.

Works Progress: One thousand feet of five-foot fence wire were packed

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into the Keet Seel area on mule back. One loaded mule went down in the quicksand in Keet Seel Canyon; after unloading and much shoveling the boys were able to rescue the mule and wire and proceed to Keet Seel. We are very anxious to find such a location that will cut out the quicksand and precarious trail we now must use. A location has been found that looks good, but possibly just a bit longer; this trail has the advantage of going past Scaffold House (described by Fewkes in B.A.E. Bulletin 50), to my way of thinking one of the most spectacular prehistoric ruins I have ever seen.

Progress was made on the water system, in that we are now running water into the redwood tank; this item still heads our list of ensuing projects; the solenoid valve is not yet installed, nor is a moisture-proof motor, or three pole switch box. Reporting all the trouble we have had getting the water system operating again is not pleasant. If it had not been for Davey's help we would not have water now. Mr. B.'s advice to step up the speed of the engine to lower the amperage was sound; since acting on it we have run seven hours without a fuse blowout.

Earlier in the month, after much trouble shooting and no luck, we hauled the tunnel assembly to Flagstaff for a complete overhaul. The rust was all scraped off and a thorough water-proof paint job applied to the pump. The side plates recommended by Tov. on August 16 have not yet arrived so we made them ourself at the Elden camp. We are going to miss Tov - so is our water system.

The sample of the cast bronze sandals to be used as trail markers along Sendal Trail is in hand and looks good. This office appreciates the help the naturalist staff has given us in locating a manufacturer and securing this attractive marker.

The log-side lumber for the contact station was brought out on Oct. 16, but no work has been done on the house as yet, the water needs being more acute.

General: We had a grand visit with Davey and Corky and Mr. Buchenberg; Davey thought that he was going to spend some annual leave up here, but we put most of our time in on the water-works.

I guess that's 30 for this month, Hugh; in closing my hope is that you or Chuck will get around to see us before we get snowed in.

- SWNM -

BANDELIER

By C. A. Thomas, custodian
Box 669, Santa Fe, New Mexico.

Visitors this month, 827; travel year to date, 827.

Temperatures for the month indicate that our winter season is drawing near with the resultant drop in travel. A high of 79° and a low of 29° were recorded for the period with the first frost coming in the early part of the month. Moisture to the extent of .40 inch fell during the first week of October, but sunny skies have prevailed for the balance of the month.

Park Service Visitors: Dr. Kelly, Branch of Historic Sites, Washington,
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D.C.; Regional Archeologist Erik Reed, Santa Fe; Dale King, park naturalist, Coolidge, Arizona; Charles Gable, Branch of Operations, Washington; Hugh Miller, superintendent; Mr. and Mrs. Frank Kittredge, Grand Canyon National Park; Mr. and Mrs. Jim Hamilton, Region III, Santa Fe; W. S. Carnes, Region IV, San Francisco; Mr. Guy Edwards, a supervisor, Boulder Dam National Recreational Area; Assistant Supervisor Robert Rose, also of Boulder; Engineers Diehl and Clark, Region III, Santa Fe; Regional Director and Mrs. Minor Tillotson, Region III, Santa Fe; Associated Regional Director and Mrs. Milton McCole, Region III; Herbert Evison, assistant supervisor of Recreation and Land Planning, Washington, D. C.; Inspector Raymond Higgins, Region III, Santa Fe; Inspector C. K. Vintner, Sebring, Florida; Peter De Gellecke, Project Development Division, Washington, D. C.; Inspector Arthur Lindberg, Oklahoma District; Inspector John Diggs, Austin, Texas; Liaison Officer H. E. French, 7th Corps Area, Omaha, Nebraska; and Inspector R. D. Sias, Austin, Texas.

Other Noted Visitors: Mr. and Mrs. C. R. Holcomb; Mr. and Mrs. J. K. Wahl, U. S. Coast and Geodetic Survey; Mr. and Mrs. Claire Mueller, Chaco Canyon CCC; Bishop Metzger, Santa Fe; Bill Colvert, publicity director, United States Coronado Commission; Adolpho Santo, Jr., Sao Paulo, Brazil; and Supervisor Andrews, Santa Fe National Forest, Santa Fe.

Surveys: Regional Engineer Diehl and Assistant Engineer Clark visited the monument October 24 to run a reconnaissance on the proposed spray system for sewage disposal. At the present time effluent from the septic tank runs into the Frijoles polluting the stream and injuring wild life. The proposed spray system will lead the effluent from the tanks to a sandy flat about half a mile below headquarters where the liquid will be disposed of by spraying on to the sand beds where it will be taken care of by evaporation and absorption.

Plans have been approved and work begun on Residence #4 at Bandelier. The new house will serve as the custodian's residence upon completion. It is hoped that the house can be occupied shortly after the first of the year. Plans are being prepared for adding another room to two of the existing residences. Two bed rooms will make these residences much more livable for men with families. Plans are also being considered for adding more rooms and a recreational room to the ranger dormitory. With the present proposed additions to residences, the housing of personnel at the monument should be solved for a time at least.

Park Operators: For the first time in many years, the lodge will close for the winter. Closing date is announced for November 1 and the lodge probably will reopen May 1 on a restricted basis. Full operation will not commence until June first.

Accessions: A new safe for keeping of monies collected for entrance permits was received during the month. We'll breathe a little easier now when monies accumulate and we can't get to town to remit.

A fine map case built at the Mt. Elden CCC camp was received, and the huge accumulation of maps and plans will be indexed and stored in it.

BANDELIER (CONT.)

during the winter.

Seven hundred sixty-one visitors in 132 groups were guided through the ruins, 119 in 21 parties were guided through the museum, and miscellaneous contacts accounted for 21 more making a total of 901 contacts out of 823 visitors. So far as known all visitors were contacted at least once.

Museum Activities: Miss Pablita Velarde, noted Santa Clara Indian Artist, has been authorized for nine days a month employment for the next six months. Work was commenced on Case #14 on October 22 and it is hoped that during the winter months much progress will be made toward completion of the exhibits.

Botany: Since the heavy travel has fallen off, temporary Ranger Elmore has devoted a great deal of time in completely arranging and cataloging our herbarium. The project is now 100 percent complete for the specimens we have.

Forest Fire Protection: Fifty man-hours were spent during the month preparing the new 1940-1950 Fire Atlas. The project is around 50 percent complete at this time and will be finished during November.

Personnel: Temporary Ranger Elmore was terminated October 25. Papers have cleared for James Eden to enter on duty November 1 as our first permanent ranger. The second permanent man at Bandelier is a long step in adequately manning this area.

Projects for the ensuing month: The following projects will be attempted next month: (1) Completion of case #14 in the Ethnology Room of the museum; (2) completion of 1940-50 Fire Atlas; (3) indexing and storage of all maps and plans; (4) completion of adequate posting of the monument before hunting season begins; (5) resumption of bird banding; (6) patrol of monument during hunting season; (7) work up stabilization program; and (8) carry on project of getting Kodochrome slides of important features of the area.

SWNM

BANDELIER CCC

By H. B. Chase, Project Superintendent
Box 669, Santa Fe, New Mexico.

Plastering and cement floors in all units of the Cabin "E" Group, Hotel Development, has been completed. Door and window openings are now being trimmed by the carpenter crew and outside staining started.

Twelve hand-carved lounging chairs and 12 hand-carved dressing table benches were completed by the carpenter crew during the month.

The office revision project was completed to the point of painting and staining; this work will follow in conjunction with the painting and staining work on the Hotel Cabin "E" Group.

Approximately 1200 lineal feet of stone gutter was completed along the cuts of the main entrance road.

The rock quarry crew has continuously quarried and shaped building stones for the proposed residence in the residential area now waiting plan and job approval.

BANDELIER FORESTRY:

By James T. Fulton, Forestry Foreman

Cabin Group E: This past month cleaning-up and grading of the patio was completed. In addition, the flagstone walks and terraces, supported by natural faced boulders, were also completed. The adjacent area on the outside of these cabins has also been completed in so far as clean-up and grading is concerned. This work has brought these two areas to the point of actual landscape work, which will be undertaken at some future date.

—SWNM—

ORGAN PIPE

By William R. Supernaugh, custodian
Ajo, Arizona.

Visitors this month, 820; travel year to date, 820.

General: The second rain of the year on Organ Pipe came October 4, washed all roads badly, and took out all fence across the washes along the north boundary. This has caused patrol to be labor this month as new tracks have had to be made across the soft washes and being stuck is just a matter of routine.

Several days of horseback patrol and exploration were made. The isolated area in the Ajo mountains along the eastern boundary I believe is some of the most scenic country in the state. One very large double arch was found so now I am in competition with Arches.

One official trip to Headquarters was made October 9 to have USDI 1259 checked over and minor repairs made at the shop. One day was also spent in trying to buy a horse for the monument but altho several were inspected none suitable has as yet been found.

Three days have been spent with Dr. McDougall going over the new road alignment and investigating wildlife problems on the monument. The greatest problem in this line here is the need of fences and water development.

The contact station has been manned this month by the U.S. Customs patrol. They have been carrying on a traffic count for their department. By having an actual count for about 18 hours per day, it seems that my former estimates may have been low. Few out-of-state tourists have as yet arrived, but week-end parties to Rocky Point, Mexico, have begun and fishing there is reported exceptionally good this fall.

Inspections and Visitors: Monument inspections this month were made by Assistant Superintendent Richey, Jerome Miller and Biologist McDougall of the Regional Office, and J. W. Ward, C. E. McDonald, Donald Steel, and Mr. Carpenter of the Public Roads Administration. Other visitors of note were Superintendent Hall and Paul Buss, Range Manager for the Indian Service.

Future Projects: One trip will be made with Dr. McDougall to Saguaro National Monument to discuss common wildlife problems. Several days will be used to replace fences washed out, and in some road repair. The rest of the month will be spent on regular patrol and administration duties. It is hoped that I may find time to attend and photograph the Papago Indian fair at Sells held November 9, 10, and 11 as I have received invitations from the Indian Service officials.

SWNM

WUPATKI

By David J. Jones, Custodian,
Flagstaff, Arizona.

Visitors this month, 303; travel year to date, 303.

Travel: There was a slight increase (8%) in travel to Wupatki National Monument this month as compared to the same period for the previous year. Our visitors enjoyed a perfect Indian summer, except on two occasions when a total of 1-3/4 inches of rain fell. Roads on the monument are in good condition, the damage from the September cloudburst having been repaired by a CCC crew.

General: It seems as if there is always some question as to the status of land in Wupatki National Monument. This month was no exception, and it was necessary to delve into the county records. In addition, a report was made on the proposed relinquishment of 80 acres in the monument for the Black Falls Irrigation Project. During the month, by the way, the Soil Conservation Service attempted to make detailed soil surveys of the land to be irrigated, but could not get across the river due to heavy rains.

A registration station for the conscription of Navajos was set up during the 14th, 15th and 16th. Only two of the Wupatki Navajos were eligible, but it was felt that others would come over from the Painted Desert. As it happened, both of my eligibles went to Cameron so that they could discuss the matter with their friends, no stray Navajos came around, and I ended up with only one registration - myself.

The form letters designed to obtain the reaction of the visitors to guide service at Wupatki are 100 percent successful. No one has had any objection to filling out the form and many have stated that they intended to write letters to the superintendent as well.

One afternoon was spent at the village of Moencopi with the CCC guide so that he would better understand the modern Pueblo people. While there, the possibility of rendering an unusual service to our visitors was investigated - to be able to send Wupatki visitors to one or more Hopis in the village who, for a nominal charge, would show them through a modern Hopi home, a nearby field, and be able to answer their questions intelligently. So many of the visitors to Wupatki would like to see a modern Hopi village that such a service would be appreciated by the interested ones.

An official trip was made to Inscription House and Betatakin during the latter part of the month. Taking annual leave while there, we made

a three day pack trip up the Tsegi with Jimmy and Sally. This was as good as a three months' vacation so far as we are concerned. Our praise of Navajo National Monument reaches the heavens, but we cannot say as much for the water system - after having helped work on it for a day and a half - even then we did not get to take the bath that Sally promised me because we were not sure that the pump would keep working.

Vandalism: The skylight in Nalakihiu Ruin was broken again. The last time was in February when some one tried to take it. This time some one either tried to take it out of the frame or threw a rock at it. Anyway I am now experimenting with Cello glass - fine mesh wire sprayed with celluloid - as it is much cheaper and should hold out the moisture.

Use of Monument Facilities by the Public:

October, 1940 - 303; 1939 - 279; 1938 - 230. At the Citadel, 236 persons registered while at Wupatki there were 145, with 78 names duplicated. Of the total travel, 251 persons or 83 percent were from out-of-state.

Stabilization: The stabilization of Wukoki - the "hanging" corner - occupied most of the month. Except for piling debris against the stabilization work done, this job is complete and all of us are breathing more easily now. Appreciation is expressed for the assistance rendered by Mr. Buchenberg. Now our only worry is the E wall of R 41 at Wupatki and it looks as though Vivian from Chaco will tell us how to do this.

Cooperative Projects: The masonry structure built to test the effectiveness of linseed oil as a preservative was sprayed this month and the "before" pictures taken. Now all that Buchy and I have to do is sit around and wait for a couple of years. So far it looks good. An unofficial trip was made to Tuzigoot with Mr. Buchenberg to see the results of Jack Cotter's activities. Needless to say we enjoyed looking over the ruin and the museum with Jack and got several ideas from him.

The type sherd collection for Wupatki has been completed to date with all of the sherds identified by Dr. Colton. Now all that we need is a convenient place to store them so that they will be of some use.

Navajos: Our sick Navajo - Gladys Begay - at last has decided to go to the hospital to see what is wrong with her. It was nip and tuck for a while with most of her family holding out for another "sing" before submitting to a doctor. Then there was a ceremony near Tuba City which everyone attended. Gladys decided to go see the doctor and then come back for the "sing". We have not heard whether she got back or not. The Navajos are delighted with the abundance of feed on the monument and apparently their sheep are too. For almost a week after they moved back on the monument the sheep grazed within a half mile of the hogans - unprecedented in this country.

— SWNM —

SUNSET CRATER

By David J. Jones, in charge
Flagstaff, Arizona.

On the basis that only 50 percent of the visitors register, 708 persons visited Sunset Crater National Monument during the past month. Of these 270, or 38 percent, were from Arizona.

SWNM

WHITE SANDS

By Johnwill Faris, Custodian
Alamogordo, New Mexico.

Visitors this month, 3,820; travel year to date, 3,820.

September seemed to manage very well without me the greater portion of the month, in spite of my possible feeling otherwise. Sholly and Joe carried on in fine style and upon my return I took over a well cared for and well managed area.

October has given us a running start on the new travel year with 3,820 people in 982 cars giving us a gain of 2,005 people and 453 cars over October of last year. The weather has been normal with the mercury dropping into the low thirties the last few nights. The increased travel has of course increased our work especially for Joe, but he has managed well and with a few per diem days we have held our own and caught up with a few odds and ends that have needed attention for some time. Several groups of Park Service officials were in. We have had considerable trouble with our light plant and twice lately we have been without lights for several days duration. Minor repairs have us limping along again but it was only last month that we had a complete overhaul.

The custodian made several inspections especially having just returned from vacation. It was my pleasure to accompany Engineers Burney and Diehl and Preece and Montgomery on road inspections especially regarding stabilization. Your office will undoubtedly be getting a report of their studies. Bill Carnes and Kell were in for a brief stay. Eric Reed and Dr. Kelly, Superintendent Miller and Charley Gable were in for a hurried visit. Two members of the State Park Commission were here for a short time. Cal and Amelia Miller visited us, and October as a whole has been a regular homecoming with the number of Park Service folks that came.

One trip this month was made to our Dog Canyon property and two conferences were held with the Lucero interests on the grazing of cattle. We are awaiting a report from the grazing division on the carrying capacity of our range before any definite action is taken or any report made.

Our publicity is apparently holding its own as shown by our travel. No complaints were received, either written or oral.

Maintenance has been only routine and no new construction has been undertaken. As mentioned, several days were given to the regular fall work, to tide us over the winter months. Work is still being carried on on two of our approach roads; one on U. S. 70 across the reservation, and the other the State road 83 connecting U. S. 285 with U. S. 70. Both of these have cut in on our travel but we will recover with a bang when ~~these are all finished up.~~

Tom Charles and our concession of course have been hitting on all four or maybe we should class Tom in the 12's or 16's; anyhow he is tops and still our best booster. Tom thinks too much of the sands to put anything else first. Anyway with the number of special groups we have had this month, Tom has been going around with a broad smile. The concession is merely marking time awaiting our decision as to where our picnic area will be since we have decided that we shall not have the two separate units. There is little doubt where it should be, but we do have one or two who have not been acquainted with all the facts and as soon as they are we will get the location picked.

We have been unable again this month to give the museum and guide service that we would like, but with travel dropping a little and if and when we get the third ranger, we should show a little higher percentage of contact.

It is interesting to note, Hugh, that the White Sands has doubled its number of visitors for the months of June, July, August, September and October over the same months of last year. I felt that I better mention this while I could, because the winter months are going to be a little hard to double. October has given us several large group picnics. Several school picnics, a Las Cruces Church picnic, City Employees of Alamogordo, Business and Professional Women, Woodman's Circle, Women's Club District Convention, and each and every group were well mannered, very considerate, and all seemed very well pleased. We appreciate groups such as these and the area is seemingly becoming more popular all the time for such meetings.

Next month we hope to continue getting ready for winter. I plan to get my advanced first aid course; George has his. That will make us both possess advanced first aid cards. We hope to welcome and break in our new ranger and his family. (This will almost classify as a "continuing project" we have been looking for him for so long.) Next month will also start me on my third year at the White Sands National Monument, liking it better every day and more impressed with its possibilities and opportunities.

SWNM

WALNUT CANYON

By Paul Beaubien, Custodian
Flagstaff, Arizona.

Visitors this month, 876, travel year to date, 876.

Ninety-nine visitors received no guide service, and 107 visited the cliff dwellings unattended. Some of the others were contacted more than once, giving a contact record of 119 percent.

Park Service visitors were V.W. Saari, Guy D. Edwards, Robert H. Rose and Carrol Miller. I missed all of them, as I was down in the canyon with the ruins stabilization crew. I did meet Geo. Van Saaks, the noted portrait artist, and H. P. Terwilliger, field representative of the American Red Cross. Mr. Terwilliger has arranged for an Emergency First Aid Station at Walnut Canyon.

This month I've been concerned principally with ruins stabilization, and 151 man-days have been spent on the project that was discontinued

June 30. Last spring we cleaned around the walls of seven rooms preparatory to repairing them. The project was far from finished when our allotted time was spent. This work has been resumed, and I fervently hope that we will have enough good weather this fall to finish these seven rooms. As this goes to press, we are in the midst of the first snow storm of the year, and it is impossible to predict the future.

Routine and Continuing Projects and Projects for Ensuing Month: If we have good weather, I'll work in the canyon; if we don't, I'll work inside on trail signs, studies in ethnobotany, cataloguing artifacts, etc.

.SWNM

MT. ELDEN CCC

By M. B. Stevenson, Project Supt.
Flagstaff, Arizona.

Walnut Canyon National Monument:

Masonry walls have been completed to plate line on the comfort station, and forms are now being placed preparatory to pouring concrete roof.

Landscaping has continued in connection with residence No. 2 and the administration building.

Work has been resumed on entrance road and sub-grade is 60 percent complete.

Work continued throughout the month in the rock quarry job.

One-third mile of rail boundary fence was completed - work was discontinued temporarily on the project October 21 due to serious truck accident.

Wupatki National Monument:

Propane system has been completed and linoleum laid on custodian's residence.

Two hundred and fifty cubic yards of rock have been moved in the basement excavation for the administration building.

Eight hundred cubic yards of fill have been placed in the driveway to the utility building.

Pipe Spring National Monument:

All lumber from dismantled buildings has been cleaned up and the entire crew of 25 men returned to Camp NP-12 on October 6.

A few loads of lumber remain to be hauled.

Park Service visitors for the month included Superintendent Hugh M. Miller, and Inspector Carl Taubert.

- SWNM -

CASA GRANDE

By A. T. Bicknell, custodian,
Coolidge, Arizona

Visitors this month, 947; travel year to date, 947.

General: We have started into our Chamber of Commerce weather for another winter with a maximum of 98° and that on the first of the month. The minimum was a gloriously acceptable 51° on October 10. Precipitation amounted to 0.44 inches in five rains. To round out the month of typical weather we were treated to two dust storms.

Administration: The fee accounts of this monument were checked by Senior Auditor Glenn of the Service and found to be satisfactory.

The Western Museum Laboratory has returned to us Medallion Papers Numbers XIII, XIV, XVI, XIX, XX, XXIV, attractively and sturdily repaired.

Thru the generosity of Yosemite National Park, we were loaned a water color by Chris Jorgensen. It is an Arizona scene depicting a Spanish Colonial Patio.

Inspections were made of the entire sewer system by the custodian and Assistant superintendent Richey. The custodian made one trip to Phoenix on official business. The Ranger drove USDI 1234, a reconditioned Chev. dump truck, to Aztec Ruins National Monument on October 4 and returned with Dale King who was en route from Santa Fe.

The Custodian is working on the maintenance of the porch of his quarters. The job now before him is to install canvas shutters.

Routine and continuing projects include the usual guide and contact work and the incidental maintenance work about the monument.

Use of the Monument by the Public: Visitors-1940, 947; 1939-696.

At last we have made a substantial gain in visitors over the number of a corresponding month of a previous year. The increase this time is 27 percent over October 1939.

Of the 944 visitors, 729 were shown thru the ruins in 142 parties for an average time of 49.2 minutes with each party. Museum parties totaled 130 which included 579 people who stayed for an average of 28.1 minutes. Unattended people (that is, those who did not choose to see the ruins but spent some time in the museum) numbered 218 in 69 parties.

The picnic grounds were more popular this month having been used by 83 people in 22 parties; and 29 people visited the Desert Trail.

Of the 352 cars entering the area this month bringing visitors, 30 percent were from Arizona.

During the month 616 guide tickets were sold for a total of \$154.00. This will balance with the total number of visitors when we add 12 deadheads, 113 children, and 218 visitors who saw only the museum.

CASA GRANDE (cont.)

Runarounds totaled 233 people in 78 cars and are not included in any of the previous totals.

Personel: Charles D. Wyatt, who has been ranger at this monument for the past year, will leave November 1 for his new post as Custodian at Canyon de Chelly National Monument. He will be replaced by Freedom Archie Christensen who is leaving a position with the Bureau of Reclamation at Boulder City, Nevada.

Flora, Fauna, Etc: Our Gambel Sparrows have returned for another winter. The first one was seen October 14. Several Phainopeplas were seen during the month.

SWNM

EL MORRO

By Robert R. Budlong, custodian,
Ramah, New Mexico.

Visitors this month, 94; travel to date, 94.

It is snowing as this report is begun, and has been doing so all morning. Heavy clouds go scudding overhead. heading for the Chaco from where, by radio, Mac. reports rain. There probably are no roads, and that will complicate matters somewhat, delaying this report several days.

Visitors: We had a total of 94 bona fide visitors during the month, arriving in 34 cars. They all arrived on 20 days. Last October we had 131 visitors, arriving in 43 cars.

Among the month's visitors were the following NPS officials: Mr. C. R. Vinton, of Sebring, Florida; Mr. Herbert Evison of Washington; Mr. Richardson of Santa Fe; Mr. Hilgedick and Mr. Saari; Mr. and Mrs. C. J. Miller of Chaco Canyon.

Weather: Maximum temperature during the month, 76 degrees, on October 19; minimum 28 degrees, October 22. We had a total of .40 inches of moisture, with snow on the 6th, 10th, and today, the 27th.

Roads: Until today's snow hit, the roads of late have been the best I have seen them since four years ago, just before election. This undoubtedly is only a coincidence.

Ranger Service: Since the custodian is taking some annual leave in November, and since much work has to be done this month, the services of a per diem guide were obtained. Miss "Sunshine" Tharp has been conducting our guided visitor parties during the month as Rangerette.

EL MORRO (continued)

Trail: Due to late harvesting of pinto beans, the men who were to report for labor on trail and other jobs never showed up. We have at last obtained the services of one local man, but rather late in the month, and much work must yet be done before really cold weather hits. Trail cleanup is practically completed; settled places repaired; washouts fixed, and one section of trail about ten feet long replaced. Undercutting of the edge of dips in the trail has been fixed also; washouts of the fill on the north talus slope have been repaired. Much grubbing of lemonweeds has been done. This weed spreads rapidly, the roots run for long distances underground and under the trail; the heat on the asphalt brings the plants right through the trail, doing extensive damage. It has been found that grubbing the plants out is the only sure remedy for this condition.

Inscriptions: These have been cleaned, and if we get a few more days of dry weather we shall complete the making of the latex moulds of the inscriptions on the north side. Inscriptions will also be waterproofed for the winter.

During the month a request was received to cooperate with the Indian Service in inspecting an inscription by Kit Carson at Keams Canyon, Arizona. The custodian drove there on October 18, returning here the following day. Meanwhile the inscription had been carefully cleaned, all loose material removed, deposits of mud and gravel removed, and the entire inscription (eleven feet in length) thoroughly impregnated with a colorless waterproofing compound. Many photographs were obtained for purposes of a report. These films have been developed, and as soon as the custodian can make prints from them, a complete report will be submitted, together with recommendations for steps to be taken to preserve and protect this inscription.

Communication: The radiotelephone installations that maintain communication between Chaco and El Morro work to perfection. We missed Mr. Hilgedick's visit, the custodian being in town for supplies when he and Mr. Saari reached the monument, though we had a very pleasant visit via radio a few days later. The custodian is now completing installation of the battery-charger and of the batteries for this installation, both units to be housed in weatherproof structures, with wires running into the house and to the radio.

Residence: Venetian blinds for one bedroom have just been received, and will shortly be installed. Storm sash are mostly in place for winter. We have been unable to obtain our winter supply of firewood for the wood cooking stove so far. Work on installation of our canned-gas system is proceeding, and should shortly be completed. Again we are badly hampered by inability to obtain labor. We will soon have refrigeration in the residence, just in time for winter and sub-zero temperatures. A 30-gallon range boiler has recently been received, and this is also in process of being installed. This will be tied-in to the present 20-gallon one, in parallel, to give greater supply of hot water. A coil in the furnace heats the water in wintertime, but in cold weather the little 20-gallon boiler becomes filled with 20 gallons of super-

heated steam. The additional boiler will prevent this. Valves to the second boiler will be closed in summer weather, when the automatic heater run by the canned-gas system now being installed will heat only the 20-gallon insulated tank. The old furnace coil cracked and broke; a new one has been ordered and will also be installed by the custodian.

Routine and Continuing Projects: These have mostly been mentioned in the foregoing. We still have to get in our winter's supply of firewood, whenever we can get someone to haul it, we need fuel oil and white gasoline. Much work remains to be done on inscriptions, quarters, and some remains to be done on grounds, though most of the latter has been completed. The remainder of October, and part of the custodian's annual leave, promise to be rather hectic, getting the monument shut-down for the winter.

SWNM

NATURAL BRIDGES

By Zeke Johnson, custodian,
Blanding, Utah.

Visitors this month, 48; travel year to date, 48.

I contacted all visitors and spent all the time necessary to tell them the beautiful stories of the monument and surrounding part of the country.

The first part of the month was rain, rain; and mud, mud!

Trail Work: The trail to Sitting Duck is nearing completion, and I am very proud of the work done by Rodney Palmer, my laborer. His father was a stone mason, so Rodney sure knows how to handle rock. He is as strong as a bull, just full of energy, and he never misses a stroke. I take pleasure in working with him. We will have the trail finished and some other work done by the time the funds are gone. I borrowed a stone hammer, and I already had all the other tools, so will be able to use all trail funds for labor.

Special Visitors: Roland Richert, roving ranger from Hovenweep, and Homer and Mrs. Hastings from Aztec Ruins enjoyed the monument, and we certainly enjoyed their short stay with us.

F. J. Adams drowned in White Canyon 26 miles below my camp on October 6. I was on top of Owachoma with a party of visitors when a rider came up to the side of the Bridge and reported that Adams had drowned the night before. He and two young men were camped at a cave in White Canyon (we call it Deickel Cave - named for an old miner that used to camp there while he worked a copper mine) and the three of them rode down to the stream. The boys both refused to ride into the stream, so Adams called them cowards and shoved his horse in. The horse was carried off his feet immediately. The boys tried to throw their ropes to Adams, but were so excited it seemed like they could do nothing. The horse got out about 200 yards downstream, but Adams was seen only once. The boys looked for his body for two hours. One remained to look further while the other rode to my camp, and we drove

NATURAL BRIDGES (continued)

over to Maverick Spring where a bunch of Paiute hunters were. One drove in to Kipolia and 'phoned the news to Blanding. By 10:00 PM there were four carloads of men and a lot of horses at my camp ready for a fresh start. By noon on Monday, October 7, the body was found ~~three miles~~ below where he had gone in. His neck was broken and the body badly bruised. He had been foreman of the cattle company on South Elk for 20 years, and was 65 years old. I rendered all the assistance I could. The water ran 20 feet deep past my camp on the day before he was drowned.

Well, it's raining hard this morning, and I am glad I got the bunch to come in last night and get my report in this morning's mail. Elk Mountain is covered with deer hunters. Some Navajos came to my camp, but I dispatched them to other territories for their deer. Several bunches are on the point between the bridges.

SWNM

CAPULIN MOUNTAIN

By Homer J. Farr, custodian,
Capulin, New Mexico.

Visitors this month, 3,500; travel year to date, 3,500.

Visitors from most of the States in our Union, Cuba, and Canada, have been at this monument this month. Regional Director and Mrs. Tillotson together with Mr. and Mrs. Christiansen were also welcome visitors on October 18. The custodian regrets greatly that he did not meet our Regional Director. I missed them only by a few hundred feet. Please come back!

Weather and Roads: This month has been hot and dry, rainfall amounted to nil, and we have had plenty of wind. High winds and dry weather make for plenty of gravel and volcanic ash rolling continually into the road. Considerable hauling of topsoil has been done this month, placing it on the road where there is insufficient binder to hold the gravel. A heavy rain the last day of September caused plenty of wash and the filling up of culverts.

Routine and Continuing Projects: The picnic area, which is also used as a general campground by tourists as well as home folks, has been cleaned twice each week during the month, waste containers emptied and hauled off, and papers and tin cans removed. Most all culverts on the road have been cleaned and the roads have been dressed repeatedly. New blank leaves for the register were received this month and placed in the book.

Projects for the Ensuing Month: We will haul sufficient top soil and place it on the road as a binder to the loose gravel to prevent holes wearing in the road. We will also burn all dry weeds along the ditches near the road and clean and burn all grass and leaves near the fireplaces at the picnic area and insofar as possible remove all fire hazards, for should the dry weather prevail (and we have a bountiful supply of grass, leaves, and other material) we foresee this fall a grave danger of fire.

CAPULIN MOUNTAIN (continued)

Wildlife: It appears that we are going to have more than our usual number of deer and birds on the monument this winter. Every morning when I go up to the monument I see deer tracks in the road and often see the deer. They surely keep plenty of rock kicked into the road. Porcupines are again busy and I notice some fresh work from their teeth on the bark of the trees. It might be that Bob Budlong's cat-spanker could do a graceful job on Capulin Mountain porcupines. In our part of the country people are having a terrible time in trying to seat a president. I do hope we get one some time this fall, then maybe these awful high winds will subside.

-----SKNM-----

SAGUARO

By D. W. Eggermayer, custodian,
Route 2, Box 544, Tucson, Ariz.

Visitors this month, 898; travel year to date, 898.

General: Travel showed the expected seasonal increase with nearly 400 more persons than during September. Of these, 406, or approximately 45 percent, were out-of-state visitors from 28 states, the Canal Zone, and Canada.

The weather has been cool, with day temperatures ranging around 75 and 80 degrees, and nightly minimums in the low fifties. Rain fell on eleven days of the month, but the total precipitation amounted to only .36 inch.

Administrative: The custodian made two official trips to other monuments delivering a new map-case from Headquarters to Tumacacori, and two days later delivering to Chiricahua tools transferred from Headquarters, bringing back a load of poles for making a car shelter. Sick leave was taken twice during the month - flu both times.

Newsworthy Visitors: Park Service personnel visiting Saguaro included Cy Harkins, of Tumacacori; Ranger Don Eaton of Pinnacles Nat'l Monument; and Lloyd Smith, former Temporary Ranger at Petrified Forest.

Maintenance, New Construction, and Improvements: No maintenance work has been done by the custodian this month; the roads have been in fairly good condition all month. The Broadway approach road was graded twice by the Pima County Highway Department and has been in the best condition since our arrival at the monument. Significantly, not one verbal complaint on road conditions has been heard this month, which is in considerable contrast with the attitude of visitors during the two preceding months.

The new register desk with its glazed compartments was painted, put up, and temporary exhibits installed. One of the three new doors was hung, giving us more than twice as much light in the living room, and is a great improvement in another way - we can now lock the door. Approximately 60 boundary signs were mounted and put up along the fenced portions of the boundary. A start was made on the huge woodpile left by the CCC, and enough wood has been cut to keep the fireplaces going for a few days although a fire has not yet been needed here.

Saguaro (continued)

Two days were spent in erecting the framework for a ramada to protect the pick-up and personnel car from the weather.

During the coming month the greater part of the time will be spent on hunting patrol. In addition it is planned to hang the remaining two doors, and we are still hoping to get the shelves built in the store-room. When other duties permit, the woodpile is still there to be whittled upon, and the pickup seat needs repairing. Hauling water always takes up considerable time, especially as we have only one barrel and two 10-gallon milk cans in which to carry it.

Interpretation: Of our total travel of 898 persons, 234 individuals in 75 groups were contacted at the monument headquarters for a total of 2421 minutes, an average per party time of 32.3 minutes. Due to the absence of the custodian on deer patrol it is probable that numerous parties who stopped were not contacted, as Mrs. Eggermayer has not been feeling well recently and has not been meeting visitors as much as in the past. Use of the picnic grounds has increased considerably, as 51 persons were actually counted in that area. A good many more have made use of the facilities, but no count can be obtained until some provision for registration is made.

Protection: Beginning October 16, daily patrols of the approach roads to the Rincon Mountains have been maintained. No hunters have been found on the monument, and no knowledge of deer having been killed on the monument has come to the attention of the custodian. However, on October 19, the said custodian was taken either for a deer or for a game warden - at any rate someone bounced a bullet off a nearby rock. Not a very pleasant feeling. Again, as was the case last year, numerous complaints have been received because of the fact that the state Game Department maps do not clearly show this area as being closed.

Cooperating Agencies: On October 12 survey work in connection with the bacterial disease of the Saguaro cactus was begun. The University of Arizona is cooperating in this project, and is furnishing all labor, through NYA funds allotted to the school. William Griswold, senior engineering student, is in charge of a four-man crew doing the survey work, while Paul Lightle, a graduate student in the Plant Pathology Department, will do the actual identification and tagging of the infected plants. Considerable valuable advice has been contributed by Dr. Lake S. Gill, Senior Pathologist of the Bureau of Plant Industry, and the technical work is being supervised by Dr. J. G. Brown, head of the Department of Pathology at the University of Arizona. This work is expected to continue throughout the greater part of the coming school year, with possible re-checks next fall.

New Equipment and Transfers: Four used, but locally serviceable tires with tubes, were received from Chiricahua for use on 1½ ton Chevrolet truck USDI 1239. The recording hygro-thermograph ordered for the Fire-weather station was finally received, and is being stored until next fire season.

Wild Life: On five consecutive days early in October we have watched a Chapparal Cock, or Road-runner, jump up on the hood of the large truck (with its old-fashioned straight-up-and-down windshield) and attack his own image with the greatest abandon and apparent disregard for consequences. One of these days, the second on which we had noticed the occurrence, he appeared tired of the battle after 35 timed minutes, disappeared, but came back an hour later, and battled the reflection for another 20 minutes. Just before dinner time, back he was again, this time for a bit over 20 minutes. He is either very dumb, or very pugnacious - or both.

SWNM

MONTEZUMA CASTLE

By Earl Jackson, custodian,
Camp Verde, Arizona

Visitors this month, 634; travel year to date, 634.

Three hundred twenty three tickets were sold, 19 children went into the Castle free as under age, and no complimentary passes were issued, so a total of 342 persons went through the Castle during the month. Visitors arrived in 223 cars, of which 68 were Arizona cars. They came from 29 states and Washington, D. C. No territories or foreign countries were represented.

Weather and Roads: Weather has been on exemplary behavior during the month. A year ago this month was nearly dry, but this time we got 2.19 inches of rain. Of this, 1.68 inches fell in one night, but was so well distributed through the nocturnal hours that destructive erosion was slight. The district benefitted greatly from October's precipitation. Temperature has been warm and mild, with little wind and few cloudy days, as befits October. Maximum temperature was 93°, minimum 42°, mean maximum was 84.63° and mean minimum 48.10°. Three days were cloudy and six partly cloudy.

Roads of the district are in uniformly good condition. There is a short detour on the principal entrance road near McGuireville at a point three miles from here, because of WPA changes in a "Y" and its approach there, but little inconvenience has been caused. Practically no travel has come this month from the Lakes route, which is always bad during wet weather.

Park Service Visitors: October 9 Custodian John Peavy of Tonto National Monument was in for a visit to the monument and its personnel. He was accompanied by HCWP Marge and Younger Edition Carol Ann. Their visit was much enjoyed.

Other Visitors: Couldn't find any whose names would replace war headlines.

Routine and Continuing Projects: Finished painting metal work in comfort stations. Drainage ditches and culverts of entrance road, partially choked with sand, were cleaned out. Minor repairs were done on one of the Castle ladders. To prevent water running into Ranger's

house from his S.W. porch again, a sill of cement was made under a door. Leaks into a bedroom of the Ranger's house are believed remedied by patching cracks in vigas at one corner. A grille was placed in the wall between the heater room and living room of Residence No. 1, so the heater will do some good this winter. A wood range in the laboratory of the Administration building was removed as a fire hazard, and replaced by a Flamo heater installation. Routine cleanup was kept current.

Education and Museum Service: Three more herpetological specimens were added to the museum collection - one Northern Black-tailed Rattlesnake, one Sonoran Scaly Lizard, and another larger Scaly Lizard which is not keyed out. The rattlesnake, which I was holding in my right hand preparatory to pickling, inconsiderately bit me on the right forefinger. However, the fangs hit bone on the knuckle before the poison openings could penetrate into the flesh, so no harm was done.

Eight more herbarium specimens were collected during the month.

The custodian continued the task of writing up, on 5 x 8 cards for filing, what he knows about Montezuma Castle National Monument and vicinity, so as to make it a matter of permanent record.

Projects for the Ensuing Month: Installation of a heater in the office, removal of the old woodpile from edge of parking area just east of museum, complete clean-up of garage and utility area, and possibly installation of air-conditioning system (although it won't be needed until summer) are projects planned. Thorough cleaning out of oil burning heating stoves is in preparation for winter.

Accessions: A welcome donation for the monument library came from the Southwestern Monuments Association. It consisted of two books, "The Ethnobotany of the Hopi," by Alfred F. Whiting, and "The Rattlesnakes, Sistrurus and Crotalus," by Howard K. Gloyd.

During the month the following items were received: one safe, one storage battery, one Flamo water heater, one stapler, and one air-conditioning system.

Personnel: Ranger William L. Bowen spent one-half day on sick leave. On October 22 Ranger Bowen left Montezuma Castle to go to his new post as Ranger at Grand Canyon National Monument.

On October 22 John E. Baczuk and wife Lillian arrived. He will fill the Ranger post vacated by Bill Bowen. He entered on duty October 24, and has already demonstrated his abilities as a plumber in helping install the Flamo system. We hope he will enjoy the work here, and believe he can do the job.

Natural Phenomena: On October 5 Beaver Creek was in fairly high flood, the first good flow of water in it for many months. This flood had such a beneficial purgative effect that now the stream channel is a beautiful thing, with great long and deep pools of crystalline water, and with fish showing up in these pools like residents of an aquarium. Because of the remarkable cleanness of the water, we have seen two muskrats within a half hour of observation on a quarter mile stretch

of the creek. This is the first I knew that there was more than one muskrat here. Also, for the first time on record, we can claim a nice foot-long bass, which loiters in a pool a hundred feet from the edge of the parking area. This fish evidently came upstream from the Verde River at a time when the Verde was muddy and the creek was cleaner. Have never heard of bass in Beaver Creek before.

We collected the first specimen of the Sonoran Scaly Lizard (*Sceloporus torquatus poinsettii*) to be recorded on this monument. Identification is mine, but I would bet a 50-cent cigar I am right. Anyway, it's pickled, and can be checked by authorities.

Miscellaneous: Fifty-seven picnickers made themselves at home during the month. Most of these used the small picnic area near the parking area. Seven campers spent a night.

It might be pointed out that despite continued complaints about hard times, more people are coming to visit this monument than did last year in the same month. This in spite of the fact that weather has been more stormy than in October of last year. It is also interesting that while October, 1939, brought visitors from three foreign countries, none are represented this time.

SWNM

TUZIGOOT

By Jack Cotter, custodian,
Clarkdale, Arizona

Visitors this month, 624; travel year to date, 624.

Visitors: After spending our first year of existence wondering how good or bad the visitor record was, we have finally come around to October, the month Tuzi was opened as a national monument. The first comparison looks encouraging: Oct., 1939, 360 visitors; Oct., 1940, 624 visitors. Three school groups and a party of Campfire Girls totalling 40 received special talks and tours during the month.

For Tuzigoot, a very special visitor was Mr. Norman G. Wallace, of Phoenix, who donated two large prints of exceedingly fine camera studies of the ruins from an entirely new angle. Mr. Wallace also generously gave permission for the pictures to be used in the leaflet now being planned for Tuzigoot.

Weather: October was a respite from the torrential rains that threatened the ruins in September. All clear for almost a month.

Stabilization: After a month of doldrums, during which NYA labor failed to materialize, and the custodian was to be seen daily daubing adobe by and on himself, a kindly providence blew two more boys in. This time the help really looks as though they had the goods, which is evidenced in the first place by the fact that they managed somehow to get down from Jerome every day for work. The new boys have done a first-rate job on four of the rooms.

New Baby at Tuzigoot: During the last heavy rain, several bad cave-ins occurred in the walls of the ruins. When the NYA boys went to work

trimming up one of these places preparatory to respiration, a number of bones were dislodged. Fortunately the boys saved what they saw and notified the custodian. For a whole day thereafter the latter was sifting baby bones from the rubble and reconstructing the burial. After some effort most of the bones were recovered. These were then replaced in the wall as nearly "in situ" as possible. A frame was then placed around the opening composed of adobe mixed with raw linseed oil. In the core of this frame a heavy iron stud was set to strengthen the wall. In this frame was set a piece of heavy plate glass. So now, the infant, less than one year old when it died somewhere in the 13th Century, is the latest exhibit to be added to Tuzigoot, and is threatening to become the most popular attraction.

SWN

CHACO CANYON

By Lewis T. McKinney, custodian,
Chaco Canyon, New Mexico

Visitors this month, 140; travel year to date, 140.

There has been lots of activity around here in the Chaco this month, but very little done. The CCC's have been going and coming for the last several weeks, and we didn't have much to do with.

This month has been pretty dry to date, except for a small rain or so which didn't wet the roads enough so we could blade them, so both approach roads have been passable but pretty rough.

Our nights have shown a minimum of 32° three times this month, but very little frost has been noticed. The leaves on the small trees in the Chaco wash have turned a golden yellow and the flowers have all disappeared except for a wild aster now and then. The maximum has been up to 78° several times, and of course the days are still pretty warm after about 9:30 or 10:00 o'clock until about sunset.

From 16 states and Washington, D. C., 140 visitors came to see the monument, arriving in 48 cars and other vehicles. In the groups of Park Service officials visiting Chaco this month were Mr. DeGelleke, Mr. Randau, Mr. Richardson, Mr. Saari, and Mr. Hilgedick.

Assistant Indian Commissioner Edward T. Zimmerman, Mr. E. H. Fryer and several other Indian Service officials were monument visitors yesterday morning. Mr. H. L. Woodard, Secretary, Gallup Chamber of Commerce, was also with the group.

Threatening Rock is still trying to make up our minds what to do with it. Three pieces have fallen off during the month, and it now measures: west end, 2-7/16 in.; center, 2-6/16 in.; east end, 1-15/16 in. The new cracks I mentioned last month are still enlarging. You know it's wonderful how some people can get nature to hold up her works until they figure out what they want to do. You take in our Service, I believe we think Threatening Rock will just stand there and wait for us to make up our minds what we should do, before she turns loose and smashes one of the most wonderful Ruins in the world. Of course we have spent around \$10,000 stabilizing the ruins of Bonito, and if the rock falls--well, all we have to do is start all over again.

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CHACO CANYON CCC

By Herman Phelps, proj. supt.
Chaco Canyon, New Mexico

This camp has been in a turmoil most all of the month, the eastern company of boys that were here having been divided. On October 8, 37 of the boys were transferred to Bloomfield; on October 10, 42 were transferred to Conchos Dam; and on October 11, 92 were transferred to Priest River, Idaho. Then the boys started coming in; on October 12 we received five boys; on October 13, 75 boys; on October 17, 25 boys; on October 18, 78 boys; and on October 29 we expect 17 more, giving us a total of 200. A large percent are Spanish-American. The boys have been going thru the conditioning period and should have been turned over for work, but have not received their clothing, so the Army is still carrying them. Maybe next month we can settle down and go to work.

The following jobs have been worked on during the month: Guide & Contact, General Cleanup, Raze Undesirable Structures, Surveys, Maintain Approach Roads, Maps & Models, Gathering Seed, Dykes & Approach Structures, Drop Structures, .3 mile Entrance Road, Section C, and Making Signs.

Mr. DeGellete from the Washington Office, accompanied by Mr. L. V. Randeau from Region III, spent the morning of October 15 going over the various jobs.

—SWNM—

MOBILE UNIT

By Herbert K. Boone, sr. foreman,
Chaco Canyon, New Mexico

This month work at Pueblo Bonito is still in abeyance with work progressing at the two outlying ruins, Pueblo Pintado and Wijiji. During the second week of the month, due to rains, the work was not carried on at Pueblo Pintado and the entire crew was concentrated on work at Wijiji.

At Wijiji 73 support jobs have been completed. This completes the west wing, the north section with the exception of two small foundation breaks and about 35 percent of the east wing. The work this month consisted of repairs to breaks and eroded areas at the bases of 18 walls, the construction of three reinforced concrete arches, and placing of steel over three breaks.

As mentioned above, one week was lost at Pueblo Pintado due to inclement weather and bad roads. However, nine support jobs have been completed this month bringing the total to 15 completed jobs, with work in progress on three others. The work this month consists of one reinforced concrete arch, breaks at the bases of two walls, and breaks at the second floor level of six walls. Scaffolding is required in order to work on the breaks at the second floor level and therefore is a time consuming job.

—SWNM—

HEADQUARTERS

BRANCH OF HISTORIC SITES

By Dale S. King, archeologist,
Coolidge, Arizona

PERSONNEL

Archeologist King spent eleven days in the field, returning to Headquarters from the meeting of the Committee on Ruins Stabilization in the Region III office via Bandelier and Aztec Ruins National Monuments. The remainder of the month was spent in the Headquarters office on routine matters including a portion of the preparation of the Monthly Report for October.

Archeologist Charlie Steen was occupied during the first part of the month with the compilation and issuance of the Superintendent's Monthly Report. He took annual leave beginning October 17 to help Mary take care of newly arrived Charlie Yazzie Steen, who, it transpired, was more receptive to the name of Ann Allison Steen. After waiting all of these months, Steen hoped for some rest, but when last heard from was reported as accomplishing much night walking and not in his sleep, either. He will remain on annual leave, presumably happy in his new state of paternity, until about the middle of November.

Naturalist Dodge spent the first part of the month in the office compiling the Superintendent's Annual Report, The Wildlife Census Report, working up additional supplies of informational leaflets for various monuments, and furthering the project for identification of herbarium specimens. He began annual leave October 14 and was still on this status at the end of the report month.

RESEARCH AND SURVEY

Herbarium specimens for Chaco Canyon and Montezuma Castle National Monuments were identified and forwarded to the Western Museum Laboratories for mounting. Revised directions for the collection and preservation of herbarium specimens were written and placed in readiness for publication, which was accomplished in the Supplement.

STATUS OF HISTORICAL AND ARCHEOLOGICAL PROJECTS

Archeologist Steen made some additional progress on the preparation of his ruins stabilization and excavation reports of the upper ruin at Tonto, although the remainder of this work will be postponed until Steen returns from annual leave. Paul Ezell spent two weeks at Headquarters working up the museum catalog and description of Tonto artifacts.

During a six day session at the Region III office the committee appointed by the Director to study ruins stabilization methods and needs in the National Park Service accomplished much work. The committee defined terms for a working vocabulary of ruins stabilization, delimited the scope of ruins stabilization and explained its position in the conservation program of the National Park Service, and set down various policies which have arisen through experience. This work will be sub-

BRANCH OF HISTORIC SITES (cont'd)

mitted to the Director for approval, and will form the basis for a thoroughgoing study of the problem which, it is expected, will continue and expand as time goes on. The committee was composed of Senior Archeologist Jesse L. Nusbaum, Chairman, Senior Engineer E. H. Preece, Chief Arthur H. Kelly of the Archeological Division, Branch of Historic Sites, Regional Archeologist Erik K. Reed, and Archeologist King.

A memorandum was prepared for the signature of Superintendent Miller asking for basic information concerning proposed expenditure of antiquities funds for the fiscal year 1941. This memorandum was distributed to the field shortly before the end of the travel month.

INTERPRETATIVE PROJECTS

The field was circularized and, by prompt action by custodians, photographs were obtained for submission to the Western Museum Laboratories for transmittal to the Director to be used in justification of additional museum preparation funds for museums in the Southwestern National Monuments whose buildings are finished but exhibits are incomplete. This included Chiricahua, Bandelier, Montezuma Castle, Walnut Canyon, and Tumacacori National Monuments. Custodians cooperated very nicely in this project.

Request was made to Western Museum Laboratories for the return of case plans for No. 16 museum case at Bandelier National Monument. It is hoped that this case can be prepared by Miss Pablita Velarde during her tenure of service at Bandelier National Monument this winter.

EXHIBITS

Three more paintings by Chris Jorgensen were allotted to monuments, thus raising the total of paintings now on exhibit by this artist to six.

Letters were written asking for information concerning proper fluorescent lighting equipment to be purchased for two cases at Aztec Ruins National Monument.

EDUCATIONAL TALKS

One illustrated talk was given by Naturalist Dodge in Tucson, Arizona, in the science auditorium of the University of Arizona on the evening of October 9 to 96 members of the Tucson Natural History Club, on the subject, "Animals of The Desert".

PUBLIC RELATIONS

Travel informational material was checked for the Conoco Travel Bureau and the American Automobile Association who are reissuing some of their literature.

On personal time photographs were taken of grade school pupils in Coolidge performing flag rituals.

PROJECTS FOR ENSUING MONTHS

Naturalists King and Dodge will attend the Naturalists' Conference at Grand Canyon, November 13 through 16. After this, Naturalist King will accompany Assistant Museum Chief Dorr G. Yeager on a tour of

BRANCH OF HISTORIC SITES (cont'd)

inspection through several museums of the Southwestern Monuments. If there is any time remaining in the month King will spend some time on the Walnut museum plan.

Archeologist Steen will be on annual leave until about the middle of the month when he will attend to routine duties while the other two men are at the Conference. He will prepare the Superintendent's Monthly Report and spend his spare time on the Tonto ruins stabilization report.

Returning from the Conference, Dodge will aid Steen on the Monthly Report and prepare an article on owls for the Region III Quarterly.

ROUTINE AND CONTINUING PROJECTS

Informational leaflets were prepared as follows: 2,600 for Aztec Ruins, 3,000 for White Sands, 2,000 for Tuzigoot, and 200 pamphlets on the Sycamore Trail for Montezuma Castle.

The following reports were prepared by the staff during the month: Annual Travel, Annual Complaints, Personnel, Federal Park Use Study, Monthly Statistical Report of Interpretational Contacts, Superintendent's Monthly Report, Wildlife Census, Organized groups, Quarterly Report of Enrollee Training in CCC Camps.

The usual number of informational requests were answered.

151 letters were written in conducting office business.

COMPLETED PROJECTS

Justifications and photographs for museum preparation at six monuments.

The Superintendent's Annual Report of 24 typewritten pages and 28 pages of photographs.

COOPERATIVE PROJECTS

Kodachrome slides were loaned to the Douglas Chamber of Commerce for illustrating a folder.

Colored movies were loaned to the Arizona State Highway for publicity purposes concerning National Monuments in Arizona.

Preliminary correspondence was entered into with a private party who has expressed willingness to contribute funds to further the excavation program on one of the Southwestern National Monuments.

Preliminary arrangements were made with the custodian of Tuzigoot in answer to a request by the Department of Library and Archives of the Arizona State Capitol which desires artifacts for display in a new museum wing which is to be opened.

Museum plans were loaned to an instructor at the University of New Mexico for use in a course in museum planning and preparation.

NEW OR UNUSUAL PROJECTS

Work was greatly curtailed during the month by the cessation of NYA cooperation October 4. NYA youth workers had accomplished a great deal, and their loss is felt keenly.

An abstract of a talk to be given at the Naturalists' Conference was prepared and forwarded to Washington.

Information concerning pre-season training of temporary employees

BRANCH OF HISTORIC SITES (cont'd)

of the Southwestern National Monuments was compiled and forwarded to a naturalist who has requested this information to accumulate material for the Naturalists' Conference.

TECHNICAL AID AND DEVELOPMENTS

Conferences were held with administrators concerning the need for an approach trail to a historical point of interest near the proposed headquarters at Arches National Monument.

ACCESSIONS

Thirty-nine Kodachrome slides mounted by Western Museum Laboratories.

A set of Southwestern Monuments Monthly Reports from former engineer Howard Tevrea.

SOUTHWESTERN NATIONAL MONUMENTS LOAN LIBRARY

Following publications were received: 12 books, 12 pamphlets, 3 reports, 21 periodicals, 12 reprints, and 4 maps.

SOUTHWESTERN MONUMENTS ASSOCIATION

Association books were kept current by the executive secretary spending a considerable amount of personal time during the month.

VISITORS

Paul Ezell, Roland Richert, Fred Gibson, Jerry Miller, Jack Diehl, Engineer Burney, Marlow Glenn, William Supernaugh, Joe H. Toulouse, Jr., and W. B. McDougall.

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BRANCH OF MAINTENANCE

By F. E. Stenchocker, gen'l mech.,
Coolidge, Arizona

Complete motor recondition on USDI 1233 for Chaco Canyon included reborring block and installing hard cylinder sleeves.

Complete motor recondition job on USDI 1261 for Gran Quivira also required a hard sleeve job, seat braces made up and welded in place, both door glasses and channel runs replaced, and rear window replaced.

USDI 1259 from Organ Pipe was in for a general tune up and minor repairs.

Bachelors' quarters lights were repaired and replaced, and some repairs were made on the plumbing.

USDI 1217, Headquarters sedan, received a new heavy duty radiator and reconditioned distributor.

One official trip was made to Phoenix for material and supplies.

USDI 1218 battery charged and car serviced for field trip to Canyon de Chelly to move household equipment for C. D. Wyatt.

Oil burning heaters have been installed in quarters for King and Teddy Baehr.

New equipment received: One K. R. Wilson sleeve puller and replacer for reconditioning V8 Ford motors; and one Sioux valve grinder attachment for grinding valve stems.

October, 1940
VISITOR STATISTICS AND INTERPRETATIONAL CONTACTS
Southwestern National Monuments

Station	Contact Personnel		Guided Trips		Lectures		Attended Stations		Unattended Stations	Contact Minutes	Total Contacts	Total Visitors
	Per	Tem	No.	Att.	No.	Att.	No.	Att.				
Arches	1	0	25	96			4	11		1535	107	168
Capulin Mountain	0	1							5	3500	3500	3500
Chiricahua	1	0	7	57	23	81				1060	138	682
Natural Bridges	0	1	15	48						1730	48	48
Organ Pipe Cactus	1	0					1	12		120	12	820
Rainbow Bridge	0	0										20
Saguaro	1	0					1	234		2421	234	898
Sunset Crater	0	0							1	354	354	708
White Sands	2	0			106	606			1	1001	1507	3820
TOTAL BIOL.- GEOL.	6	2	47	201	129	687	6	257	7	4855	6000	10,664
Aztec Ruins	2	2	144	596	145	539				11,290	1251	812
Bandelier	1	2	132	761	29	119	1	21		10,010	901	827
Canyon de Chelly	0	1	37	106	44	140				4,400	246	351
Casa Grande	2	0	142	729	130	579			2	247	1526	947
Chaco Canyon	1	0	37	201	24	140				3,350	341	140
El Morro	1	1	31	92	3	10	1	2		2,506	104	94
Gran Quivira	1	0	38	192	4	21			1	1,825	217	186
Gila Cliff Dwellings	0	0										10
Hovenweep	0	0										30
Montezuma Castle	2	0	141	528	88	347			1	8,824	875	634
Navajo	1	0	9	26						1,215	26	20
Pipe Springs	1	0			1	97	33	118		725	215	105
Tonto	1	0	57	184	57	167				4,935	351	262
Tumacacori	2	0	100	304	100	304				3,800	603	304
Tuzigoot	1	0	173	584	170	581				7,050	1105	624
Walnut Canyon	1	30	83	189	29	97	1	752	2	9,886	1036	876
Wupatki	1	10	43	121					1	2,231	357	303
Yucca House	0	0										20
TOTAL HIST.- ARCH.	18	10	1167	4613	824	3141	36	891	7	82,732	9219	6545
GRAND TOTAL	24	12	1214	4814	953	3828	42	1148	14	92,033	15,219	17,209
This month last year	24	20	1427	5335	1083	3960				86,591	9,324	12,916
	24	13	1346	7464	368	1723	1177	4724	48	114,235	15,618	28,524

BRANCH OF ACCOUNTING

By Parke W. Soule, chief clerk
Coolidge, Arizona.

Special detail of Assistant Clerk-Typist Goodwin away from Headquarters, and resignation of Junior Clerk-Stenographer Mungerro to accept other employment have thrown an unexpectedly heavy load on the remaining personnel. Steps have been taken to rectify this situation at the earliest practicable date. Meantime we find thorns concealed in our bed of roses.

Vouchers prepared during the month, regular appropriations . . .	209
Vouchers prepared during the month, CCC	114
Purchase Orders issued, regular appropriation, Hdqrs	54
Purchase Orders issued, CCC	110
Allotment ledger sheets prepared, regular appropriations	241
Allotment ledger sheets prepared, CCC	145

Expenditures:	Total for Month	Total to Date
1411000 National Park Service, 1941	8,944.52	40,145.52
140/11000 National Park Service, 1940-41	109.94	1,127.94
14x1010	3.32	2,360.35
14--808/00514	11.00	68.00
Civilian Conservation Camps	<u>7,959.54</u>	<u>31,560.54</u>
Total	17,028.32	75,262.35

SWNM

PERSONNEL NOTES

Although he didn't say much about it in his report, Hank (Archos) Schmidt had a narrow escape from death. While making a boat trip on the Colorado River the boat caught fire. Hank tried to throw an open can of gasoline overboard, but the gas ignited, spraying Hank and two other men with the blazing liquid. All three men plunged into the river to extinguish the flames. Hank swam back to the boat and helped pull in one of the others who was unable to swim against the swift current. The bad old Colorado will get you if you don't watch out, Hank!

Adding to the imposing list of girl babies which have been brought into the Southwestern Monuments fold in 1940, Ann Allison arrived in the Steen household on October 15. Her arrival timed to a nicety, Ann enabled the proud Padre Steeno to list her as a dependent when he registered for the selective draft the following morning. Incidentally, October 16 was Charlie's birthday as well as registration day.

As the report "goes to press" Mary and Ann Allison are at home where Charlie is serving in the capacity of nurse, cook, and housekeeper. All three are doing nicely.

A letter just received from Joe Toulouse brings us the sad news of the death of Joe's mother. All of us extend our sympathy to Joe and Betty and wish that we might be of assistance and comfort to them in

this time of trouble.

Just a little bite from a rattlesnake is a part of the day's work to Earl Jackson. Earl reports the "nip" in his report as if he had been bitten by a mosquito.

Once again Paul Beaubien is batching in the old Forest Service cabin, Lois having taken her mother back to Denver for the winter. Lois reports that Mrs. Baldwin is doing well and is making a very encouraging convalescence. Buchy, who visited Walnut on several occasions, says that Paul is busy on stabilization work in the canyon, but took sufficient time out to try to sell him on a revolutionary idea for improved shaving.

All of us welcome to the Southwestern Monuments' circle Hugh's mother who has been living in her long-time home town of Beatrice, Nebraska. Chris went back on the train after Mother Miller and brought her out to this always-summer land before the Nebraska winter set in.

Our newest member of the Southwestern Monuments Friends is A. E. Buchenberg, now of Patagonia, Arizona, formerly of Detroit, Port Huron, and other eastern points. "Buchy", as he is fondly called, spent the late summer and early fall in the Flagstaff area, particularly at Wupatki where he became greatly interested in Davey's work, especially in research for interpretation. With the advent of cold weather, Buchy moved down to Coolidge and is now ensconced at the Headquarters library where he is starting an extensive study of the Casa Grande.

John E. Baczuk, all the way from Illinois, has reported at Montezuma Castle National Monument to take up where Bill Bowen left off. To both John and Lillian (Mrs. Baczuk) welcome to the Southwest.

Down here at Headquarters we still don't know how to pronounce Baczuk. Information please!

To Bill and Gertrude Bowen: Adios! We liked you a lot and will miss you both. The job at Grand Canyon National Monument is right up your alley and we predict a fine Park Service career for you. Good luck, lots of it; and come back to see us often.

Bill Stevenson was absent on sick leave for a couple of weeks in October. Bill had an operation on his nose. This is to help him smell out things that might go wrong in his CCC camp. He hopes it will help him smell out some extra funds to maintain his equipment.

Herman Phelps, handsome engineer foreman at the Chaco CCC Camp, was promoted to be project superintendent effective October 1. Now, Herman, you'll have to try to act as cranky as Hub Chase.

Walter Welton, acting project superintendent at the Arches CCC Camp, should be smiling; his appointment as full project superintendent as a promotion from his previous appointment as senior foreman (engineer) has been received. But they say project superintendents never smile.

The following good men and true completed their respective probationary assignments successfully during the month of October:

Argyle D. McGillivray, Bandelier
Ira John Peavy, Tonto
Henry G. Schmidt, Arches
William R. Supernaugh, Organ Pipe
Charles D. Wyatt, Casa Grande

PERSONNEL NOTES (cont'd)

Congratulations, fellows! You already belonged to the fraternity of the monuments in your hearts, and now you belong to it on paper also.

Charles Wyatt, Ruth, Anne, and "Shah-dee" have left Casa Grande for their new home in Canyon de Chelly. Charlie takes Ted Cronyn's place as custodian. Luck to you, Charlie! We can fill your place at Casa Grande, but where are we going to get another Anne and Shah-dee?

Art Thomas, Bandelier, shows signs of taking a little annual leave. Must be something pretty important. Anyway, we hope he has a grand time. Art's nose has been flattened against the grindstone for a long time.

Gene Stonehocker, lone mechanic at Headquarters, has a strained and hunted look. He has nightmares in which automotive equipment in need of repairs showers down on him from the heavens, and he wakes up in a sweat from his efforts to get out from under it.

Parke Scule, the ogre of our dreams about fiscal and record matters, has been commuting between Casa Grande and Petrified Forest National Monument to help out during a change in fiscal personnel there.

Ira G. Goodwin (Goody), of the Headquarters staff, is on a 60-day relief assignment at Petrified Forest. Somebody (lady's name not supplied) remarks that it's a shame to waste his sweetness on that desert air.

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The
SUPPLEMENT
to the
Southwestern National Monuments
Monthly Report



Wherein the reader will find Supplemental Observations, Random Papers, and Ruminations of the Boss, as well as any other odd, interesting, or instructive matter which may have turned up during the month

PROPOSED PLAN FOR ARCHEOLOGICAL SURVEY

By Joeseeph H. Toulouse, Jr., Custodian

PROCEDURE

In order not to have too much duplication in the way of numbering or possibly of data, it has been discussed and suggested that the various monuments interested in an archeological survey, should cooperate closely with the nearest institution, themselves conducting such a survey. On the other hand as has been suggested by Regional Archeologist Reed it might be desirable to have in some cases, in conjunction with the cooperative institution's numbers, a Monument number, thus having a numerical sequence. This could be obtained by using the Monument's principal initials, i.e., GQ--Gran Quivira; W--Wupatki; N--Navajo; etc. A tentative suggestive cooperation is as follows:

Laboratory of Anthropology, Santa Fe, New Mexico: Gran Quivira, Bandelier, El Morro, Capulin, White Sands, Chaco Canyon, and Aztec Ruins National Monuments;

Museum of Northern Arizona, Flagstaff, Arizona: Wupatki, Walnut Canyon, Navajo, Tuzigoot, Montezuma Castle, Canyon de Chelly, Hovenweep, Pipe Spring, Rainbow Bridge and Natural Bridges;

University of Utah, Salt Lake City, Utah: Arches National Monument;

University of Arizona, Tucson, Arizona: Casa Grande, Tumacacori, Saguaro, Organ Pipe, Tonto, and Chiricahua National Monuments.

The plan of cooperation between the Monuments and their nearest Institution could be left to the initiative of the custodian, as certain of the monuments lack certain facilities--this could be determined between the custodian and headquarters interpretative staff if thought necessary. For some of the monuments, complete collections and data would undoubtedly not be necessary for their purposes, consequently, a card file listing the sites and their locations with pertinent information would serve every purpose.

RECORDING DATA

For recording data two card sizes could be utilized, as has been standardized among the Southwestern National Monuments, these are (1) the 5"x8" size, and (2) the 3"x5" size. The larger size will be used as the site card with the smaller size optional, and being used wherever needed for cross-indexing. For site card see the accompanying card outline.

For cross-indexing the following suggestions are offered: period cards, i.e. Pueblo I, II, etc.; cultural cards, Mogollon, Pueblo, Navajo, etc.; specific items, i.e., Great Kivas, jacal structures, camp sites, etc. On such a card could be recorded the site numbers, with the card headed by the desired subject and filed alphabetically.

PROPOSED PLAN OF ARCHEOLOGICAL SURVEY (continued)

Filing of site cards would be in numerical order as indicated by site number, and if a drainage series was desired these could be recorded in the cross-index.

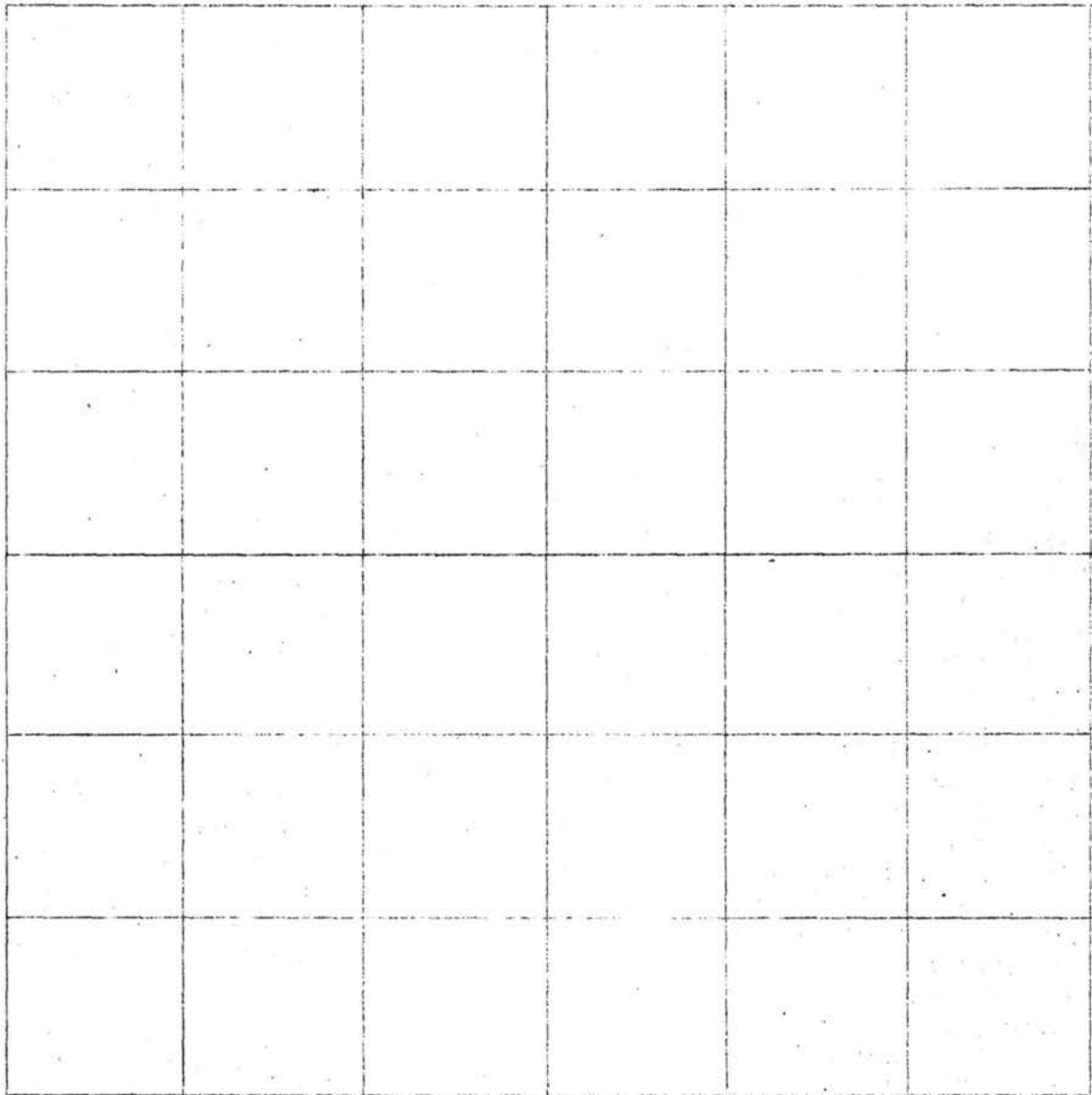
For those areas where potsherds must be collected the method of storage as used at the Museum of Northern Arizona is suggested. This involves the use of varied size boxes or cartons with a label on the end giving site number, and roughly or broadly the pottery types.

For location of sites, the following plan is suggested as being the most feasible. Sites would be located on township plats. These can be taken from the various National Forest Maps, State Maps (U.S.G.S.), and with the forest map as a base further physiographic features could be plotted in by the archeological surveyor. This could be extended to take care of areas having no available published maps. The flexibility of the township maps is that they can be varied in scale for better showing relationships of sites which are close together. A suggested scale is 1" to the mile. (See accompanying sheet outline.)

Sample of Site Card

Site No.		Name		Drainage	
Location T _____ N-S R _____ E-W		Section		Type of Site	
Period		Culture		Photo	Map
Size		Rooms		Water	
Landscape					
Pottery					
Remarks					
Other artifacts					
Date		Reported by:			

SAMPLE OF TOWNSHIP PLAT



Scale: 1" equals 1 mile

Township N-S

Range E-W

INTERPRETATIVE STATEMENT-EL MORRO

By Aubrey Noasham, Regional Historian

The movement of the white man from the Old World to the New and from one part of the Americas to another, after the discovery by Columbus, is one of the great stories of history. Explorers, soldiers, missionaries, traders, miners, settlers, and hosts of others who represented Spain, England, France, Portugal, Russia, Sweden, Holland, and Denmark in their quest for colonial empires, formed successive waves which pushed the frontier forward. From the Caribbean Islands to Central America to the mainlands of North and South America, and gradually into the interior, farther and farther, they went. Musty documents, hidden away in foreign and domestic archives, contain the evidence and first hand accounts of those pathfinders of empire. It is from these documents that much of our information is taken concerning the routes travelled, the hardships encountered, and the events which took place.

The southwestern part of what is now the United States was one of the earliest and major areas in this movement of the white man. Within fifty years after Columbus' discovery, much of this area had been explored by Spain. The accounts given by Cabeza de Vaca, Friar Marcos de Niza, and Francisco Vazquez de Coronado, or members of their expeditions, formed an inspiring incentive for those who were to follow later. In ever-increasing numbers other explorers, soldiers, priests, and settlers followed these first intrepid leaders, and each in turn left his imprint in deed and written word.

New Mexico, being an early center of exploration, was the first center of permanent colonization in the Southwest. From 1598 onward this northern outpost served as the base for further expansion. Here, as in other areas, accounts and records of what they did were left by those who established the rule of the Crown of Spain.

Not all written accounts of the advance of the white man in New Mexico were put upon paper or parchment to be transported to distant archives. Some permanent written records were left upon the scene of action. The massive rock of El Morro, for instance, in the Zuni country of western New Mexico, served as the most famous autograph album in North America. Here, today, are to be seen inscriptions carved on stone giving the dates, names, and deeds of many who passed by here. Inscription Rock, as El Morro is often called, with its life-sustaining water hole upon a main southwestern travel route, was a favorite stopping place for those who made history in this region.

The inscriptions at El Morro cover the full span of pioneer history in the Southwest. Ancient pictographs and petroglyphs made by prehistoric Indians, the ruins of whose villages may still be seen on top of the bluff, form a subtle background for the some fifty-odd carvings and inscriptions, dating from about 1604 to 1774, made by the early Spaniards, notably Don Juan de Onate, founder of New Mexico, and later governor of the province. Records left by American soldiers, as well as those of emigrants en route to the gold fields of California, names and brands of ranchmen and cowboys, and the initials of eminent scientists and others who passed here later, all constitute a cross section of the peoples and activities making up the

story of the white man's movement in the Southwest.

El Morro is preserved by the National Park Service as a national monument. Although no one is allowed to inscribe his name upon this ancient rock today, it remains a scientific record as important as many of those written upon parchment or paper. As a dramatic document, preserved in stone upon the scene of historical events, its fame will increase year by year. As a portrayal of the movement of the white man in his desire to push the frontier forward, it retains the atmosphere of the explorer, the soldier, the missionary, the settler, the emigrant, and the traveller. Preserved, El Morro stands as a great monument to those who came before us.

****SUNRISE****

FROM THE MAIL BAG- PROTECTION VS. USE

By C. A. Thomas, Custodian

If I remember correctly, the policy of the National Park Service in administering the Parks and Monuments is first; protection, and secondly; use. The ideal, of course, is to leave an area absolutely undisturbed. This would mean that no one now or ever would be permitted to disturb it. But, one may ask, what is the use of having such an area if no one is to use it for anything: Immediately some one uses the area, it is bound to be disturbed and no longer a virgin wilderness. Some one has said - I don't remember where or who - "An ideal is something toward which to work; it should not be a thing that keeps us from working". I haven't much patience with the ideal untouched and untouchable area; for, unless we have a use for such an area, why have it? Neither do I have any sympathy with the fellow who wants more roads, more areas opened up, more places made available to throw trash and cigarette butts and film wrappers and tin cans and Kleenex.

What is the middle of the road course, then, that will allow a maximum of protection and maximum of use? Protection implies protection of the parks from fires, but if we want to lean to the extreme point, fires are undoubtedly natural to some extent. Lightning fires undoubtedly burned over these hills thousands of years before man ever set foot on this continent. An old Taos Indian once told me "Before the White Man came to the mountains, bugs and disease seldom killed the forests, because when the bugs attacked the trees, a few (trees) died, and the gods seeing the dead trees sent the lightning to set them afire. The fire burned up the dead trees and the bugs and no more trees were harmed for a long time". In a primitive area, then, we should put out only the fires started by man?

Many who raise the greatest hue and cry about not opening up a section for the people as a whole to see and enjoy are the ones who would despoil it most. "Leave the place untouched except by us who because of fortunate circumstance have plenty of leisure time to hire guides and horses and can go into the place and stay. Don't let the fellow whom fortune favors with only a short vacation have access to the wilderness. He won't appreciate it as we do!"

Few of us would ever appreciate art if we never had the opportunity of seeing it, or classical music if we were denied the privilege of ever

hearing it. The basis of use of an area should depend upon use for human need and enrichment of life for all, be they rich or poor, gifted with unusual appreciation or only the capacity for it.

Sometimes I am inclined to believe that the more people we can show our wildernesses to, the more they come to appreciate them; to get the idea of protection and to cooperate in keeping them sacred. It is usually the fellow on his first trip to the mountains and our parks who pulls great bunches of flowers, throws his trash everywhere, leaves his fire unattended or throws his cigarette where it will burn the trees and wildlife. As he sees more of the wilderness or natural area, he begins to appreciate it and will take increasingly greater care to see that it is preserved. So I don't have much patience with the purists who object to the development of the monument.

Editor's Note: We do not necessarily agree at every point, but think that this aside lifted from one of Art's recent letters is stimulating and provocative of thought. We will be glad to give equal space in the next monthly report to the best criticism of Art's remarks which reaches us.

*** SWM ***

OTOWI ARTIFACTS

By Robert H. Lister

A ruin stabilization program was carried on at the Otowi ruin in Bandelier National Monument during April and May of 1939. A number of artifacts were recovered in conjunction with this work--both from the surface of the ruin and from the excavations that were necessary in carrying out the stabilization. These artifacts neither represent anything sensational nor any new types, but since they have been obtained it is believed that a record of them should be made. During the stabilization work, care was taken to recover all items of cultural material and detailed notes were kept as to the conditions under which the items were found and their locations. A great many potsherds were recovered, but they have not been studied as yet; therefore, this will list only the other artifacts recovered.

Specimen	Provenience	Condition	Dimensions in inches	Remarks
1. Arrow- shaft straight- ener	Surface	Fragmen- tary	Length 3-7/8" Width 2-3/4" Thickness 7/8"	Gray, micaceous schist. A well-worn groove had been worked across the nar- row part of the artifact, and a ridge had been left on one-half of the surface,

ARTIFACTS FROM OTOWI RUIN (continued)

Specimen	Provenience	Condition	Dimensions in inches	Remarks
				running at a right angle to the groove. Rather crudely made, does not appear as though sides had been worked.
2. Arrow-shaft straightener	Surface	Fragmentary	Length 2-1/4" Width 2-1/4" Thickness 11/16"	Gray, micaceous schist. All edges of the artifact are broken, but may have been worked originally. The groove and ridge are present, but the groove does not show much wear.
3. Axe	Surface	Fragmentary, the cutting edge had been broken off.	Length 2-1/2" Width 2" Thickness 1"	Apparently made from a river pebble of heavy black granite. The groove does not extend entirely around the axe, but had been worked into the two narrow sides only. The base of the axe had been slightly pointed.
4. Axe	Surface	Probably complete, but looks as though had been made from another implement.	Length 2-1/4" Width 1-3/4" Thickness 1/2"	Made of heavy reddish-gray granite. Grooves had been pecked into the two narrow sides of the axe. One of the large surfaces had been smoothed and polished, but the other had been left rough. At the base of the axe, part of another groove can be seen, which leads one to believe that this axe had been fashioned from a larger implement--possibly another axe.
5. Clay pipe	Surface	Fragmentary	Length 2-1/2" Smallest diam. 7/16" Greatest diam. 3/4" Hole varies from 1/4" to 1/8" in diameter.	Only one-half of the stem of this tubular pipe of gray-brown clay was found.

ARTIFACTS FROM OTOWI RUIN (continued)

Specimen	Provenience	Condition	Dimensions in inches	Remarks
6. Clay pipe	Surface	Fragmen- tary	Length 1-3/8" Smallest diam. 5/16 Greatest diam. 1/2" Hole: 1/8" in diameter.	Stem of a tubular pipe of gray clay-black decoration. The decoration consists of a line encircling the pipe near the stem end, and dots placed between this line and the broken end. The pipe has been broken at the point where the bowl would begin.
7. Clay pipe	Surface	Fragmen- tary	Length 3/4" Smallest diam. 5/16", great- est diam. 1/2" Hole: 1/8" in diameter.	Brown clay pipe stem.
8. Clay pipe	Surface	Fragmen- tary	Length 7/8" Smallest diam. 3/8, greatest diam. 9/16; Hole: 1/8" in diameter.	The stem of a gray clay pipe.
9. Stone pipe	Surface	Fragmen- tary	Length 5/8" Greatest diam. 3/4; Hole varies from 3/16 to 7/16" in diameter.	Made of a white calc- like rock, but appears to be much harder. The piece consists of a part of the bowl and a part of the stem. Probably had been tubular. Three incised grooves encircle the bowl
10. Stone pipe	Surface	Fragmen- tary	Length 2" Width 3/4" Thickness: 1/4" to 1/2" Hole varies from 3/16 to 3/8 in diam- eter.	This tubular pipe stem is also made of the hard white rock. The stem is flattened--oval in cross- section. Broken off at the beginning of the bowl. The bowl had been conical in shape.
11. Clay pipe	Surface	Fragmen- tary	Length 2" Width 7/3" Thickness; 7/16 to 3/4, Hole varies, 3/16 to 7/16 in diameter.	Stem of a gray tubular clay pipe. The stem is flattened, but the bowl had been conical. Broken off at the beginning of the bowl.

ARTIFACTS FROM OTOWI RUIN (continued)

Specimen	Provenience	Condition	Dimensions in inches	Remarks
12. Clay pipe	Surface	Fragmen- tary	Length 1-7/8 Width 3/4 Thickness 3/8 to 3/4. Hole varies from 1/8 to 5/16 in diameter.	Stem of a tubular gray clay pipe. Flattened stem.
13. Clay pipe	Surface	Fragmen- tary	Length 1-5/8 Diam. 2/16. Hole: 3/16 in diameter.	Gray-brown pipe stem. Cylindrical, has very lit- tle taper.
14. Bone bead	Surface	Good	Length 2-3/4 Diam. 3/8	Long cylindrical bone bead. Nicely polished. Probably a turkey bone.
15. Clay pendant	Surface	Good	Length 1-1/16 Width 7/16, Thickness, 1/4 Hole 1/8" diam.	Rectangular pendant of brown clay. Crudely made.
16. Stone pendant	Surface	Good	Length 7/8 Width 1/2 Thickness 5/16 Hole 1/8" diam.	Roughly made rectangular pendant of dark gray stone.
17. Arrow point	Surface	Good	Length 5/8	Small chert arrow point. Side-notched.
18. Arrow point	Surface	Good	Length 3/4	Small flint arrow point. Side-notched.
19. Arrow point	Surface	Good	Length 3/4	Small obsidian arrow point. Side-notched.
20. Arrow point	Surface	Good	Length 7/8	Small obsidian arrow point. Base and side-notches.
21. Arrow point	Surface	Fair	Length 1-1/4	This obsidian arrow point does not appear to have been finished. Side-notched.
22. Drill	Surface	Good	Length 1-1/4	Flint drill.
23. Bone awl	Area 17	Good	Length 4	Awl made from an animal bone. Good point.
24. Bone awl	Area 17	Good	Length 3	Awl made from an animal bone. Pointed.

ARTIFACTS FROM OTOWI RUIN (continued)

Specimen	Provenience	Condition	Dimensions in inches	Remarks
25. Arrow point	Area 18	Good	Length 7 1/8	Flint, side-notched arrow point.
26. Arrow point	Area 19	Good	Length 1-6/8	Flint arrow point. Side-notched.
27. Arrow point	Area 10	Good	Length 1-5/16	Side-notched, flint arrow point.
28. Arrow or spear point	Area 14	Fragmen-tary	Length 2-1/2	Part of an obsidian arrow or spear point. Finely flaked. Most of the base is broken off.
29. Arrow point	Area 12	Fragmen-tary	Length 1	Part of an obsidian arrow point. Base broken off.
30. Arrow or spear point	Area 10	Fragmen-tary	Length 1-1/8 Width 7/8	Obsidian arrow or spear point. Unusually wide. Side and base-notches.
31. Bone awl	Area 9	Fragmen-tary	Length 2-7/8	Only the point of this bone awl was found.
32. Worked wherd	Area 9	Good	Length 2 Width 1-5/8 Thickness 3/8	This sherd, of Discuit B type, had been shaped to represent a side-notched arrow point. Nicely made.
33. Clay bell	Area 13	Fragmen-tary	Length 1-1/4 Width 1-1/8 Thickness 3/4 Hole in top 1/8" in diameter.	This is apparently an imitation of a copper bell made of gray clay. One-half of the bottom of the bell is broken off. It had been hollow and had a slit in the bottom such as copper bells have. The top of the bell has a small hole thru which a cord could be passed. A very good imitation of a copper bell--the type that was traded into the Southwest from Mexico.
34. Axe	Area 14	Fragmen-tary	Length 3-1/2 Width 2-3/8 Thickness 7/8	Made of reddish-gray granite. Both the base and cutting edge are broken off the axe. Grooves had been worked into the two narrow sides.

ARTIFACTS FROM OTOMI RUIN (continued)

Specimen	Provenience	Condition	Dimensions in inches	Remarks
35. Arrow point	Area 14	Fragmen- tary	Length $7\frac{7}{8}$	Part of an obsidian arrow point. Base and side-notched. The point has been broken off.
36. Arrow-shaft straightener	Area 3	Fragmen- tary	Length $5\frac{3}{4}$ Width $2\frac{3}{8}$ Thickness 1 Groove $\frac{2}{8}$ wide, $\frac{5}{16}$ deep.	Gray, micaceous schist. Groove runs the long way of the stone. This arrow-shaft straightener has no ridge. One edge of the artifact had been smoothed, but the others had either been left unworked or have weathered badly.
37. Axe	Area 10	Good	Length $3\frac{3}{4}$ Width $2\frac{1}{2}$ Thickness $1\frac{1}{4}$	A very crudely made axe of gray basalt. No groove had been pecked in this, but it is narrow in the center--shaped like a double-bitted axe. Large flakes had been removed in fashioning the artifact.
38. Arrow-shaft straightener	Area 8	Fragmen- tary	Length 4 Width 2 Thickness $\frac{7}{8}$	This artifact is made of gray micaceous schist. It is the type of arrow-shaft straightener with both a groove and a ridge. The groove is cut across the narrow part of the stone, and the ridge extends at a right angle to the groove--going across half of the surface. The groove does not show much wear. Only one of the edges of the stone had been smoothed.
39. Arrow-shaft straightener	Area 15	Fragmen- tary	Length $3\frac{1}{4}$ Width 2 Thickness $\frac{7}{8}$	Another of the gray micaceous schist arrow-shaft straighteners with both a ridge and a groove. Edges not well worked.
40. Axe	Area 15	Fragmen- tary	Length 3 Width $2\frac{1}{2}$ Thickness $1\frac{1}{4}$	This axe is gray-granite full-grooved, but cutting edge and part of base broken off. Probably had been a river pebble.