

*E. F. ... m ...*  
*Optim ...*  
SOUTHWESTERN  
MONUMENTS

MONTHLY  
REPORT  
SEPTEMBER 1934

*OK*  
*207-402*

OCT 1933 TO SEPT 1934

WE HAD

195,392

VISITORS

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

CHACO CENTER  
NATIONAL PARK SERVICE  
P.O. Box 26175  
Albuquerque, New Mexico 87125



# SOUTHWESTERN MONUMENTS

## REPORT FOR SEPTEMBER

1934

### I N D E X

#### SOUTHWESTERN MONUMENTS GENERAL

Introduction-----	94
Annual Travel Report-----	94
Analysis of Annual Travel-----	97
Meaning of "Educational Contacts"-----	99
Construction-----	101
Personnel-----	101
Field Trips-----	101
Travel for Month-----	102
Closing-----	102

#### REPORTS FROM THE MEN IN THE FIELD

Chiricahua-----	103	Gran Quivira-----	119
Bandelier-----	106	Tumacacori-----	119
Aztec Ruins-----	110	El Morro-----	120
Chaco Canyon-----	112	Pipe Spring-----	123
Montezuma Castle-----	114	Tonto-----	124
Navajo-----	115	Wupatki-----	124
Natural Bridges-----	116	Walnut Canyon-----	126
Capulin Mountain-----	117	White Sands-----	127
Canyon de Chelly-----	117	Casa Grande-----	128

Engineers' Reports-----	129
-------------------------	-----

#### T H E S U P P L E M E N T

Frederick K. Vreeland-----	131
Casa Grande July, August and September Trip Charts-----	132
Analysis of Time Clock Records-----	135
Discussion of Trip Records-----	137
List of Inscriptions and Names, El Morro-----	138
Bandelier Museum Studies-----	142
Story of Bandelier National Monument (Earl Jackson)-----	149

## LOCATION AND PERSONNEL OF SOUTHWESTERN NATIONAL MONUMENTS

HEADQUARTERS--- Southwestern National Monuments Office, Coolidge, Arizona.  
Frank Pinkley, Superintendent. Robert H. Rose, Acting Assisten Supt.  
Hugh M. Miller, Chief Clerk. Dale King, Junior Naturalist.

- 
1. Arches --- Moab, Utah. J. J. Turnbow, Custodian.
  2. Aztec Ruins --- Aztec, New Mexico, Johnwill Faris, Custodian.
  3. Bandelier --- Box 669, Santa Fe, New Mexico. Earl Jackson, Custodian.
  4. Canyon de Chelly --- Chin Lee, Arizona. Robert R. Budlong, Custodian.
  5. Capulin Mountain --- Capulin, New Mexico. Homer J. Farr, Custodian.
  6. Casa Grande --- Coolidge, Arizona. Hilding F. Palmer, Custodian.
  7. Chaco Canyon --- Crown Point, New Mexico. Thomas C. Miller, Custodian.
  8. Chiricahua --- Wilcox, Arizona, Charles E. Powell, Temporary Ranger.
  9. El Morro --- Ramah, New Mexico. E. Z. Vogt, Custodian.
  10. Gila Cliff Dwellings --- Cliff, New Mexico. No Custodian.
  11. Gran Quivira --- Gran Quivira, New Mexico, W. H. Smith, Custodian.
  12. Hovenweep --- Cortez, Colorado. No Custodian.
  13. Montezuma Castle --- Camp Verde, Arizona. Martin L. Jackson, Custodian.
  14. Natural Bridges --- Blanding, Utah, Zake Johnson, Custodian.
  14. Navajo --- Kayenta, Arizona. John Wetherill, Custodian. Milton Wetherill,  
Acting Temporary Ranger.
  15. Pipe Spring --- Moccasin, Arizona. Leonard Heaton, Acting Custodian.
  16. Rainbow Bridge --- Kayenta, Arizona. No Custodian.
  17. Saguero --- Tucson, Arizona. No Custodian.
  18. Sunset Crater --- Flagstaff, Arizona. No Custodian.
  20. Tonto Cliff Dwellings --- Roosevelt, Arizona. Charlie R. Steen, Temp. Ranger.
  21. Tumacacori --- Box 2225, Tucson, Arizona. George L. Boundey, Custodian.  
M. O. Evenstad, Ranger.
  22. Walnut Canyon --- Flagstaff, Arizona. Paul Beaubien, Temporary Ranger.
  23. White Sands --- Alamogordo, New Mexico. Tom Charles, Custodian.
  24. Wupatki --- Flagstaff, Arizona. James Brewer, Temporary Ranger.
  25. Yucca House --- Cortez, Colorado. No Custodian.
-

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
SOUTHWESTERN MONUMENTS

Coolidge Arizona, October 1, 1934:

The Director,  
National Park Service,  
Washington, D. C.

Dear Mr. Director:

We again bring our good ship into port long enough to report on our activities for the month of September 1934.

SOUTHWESTERN MONUMENTS GENERAL

ANNUAL TRAVEL REPORT:

Travel figures for Southwestern Monuments for the travel year October 1, 1933 to September 30, 1934, inclusive, were submitted on the last day of the month. A listing of this travel by individual monuments accompanied with explanations and discussion, will make the list of figures mean something. Travel figures must be explained a little in order to be of very much value.

In the following tabulation, travel figures marked with the asterisk (\*) have been estimated. Those not so marked represent either an actual count from registration, or were arrived at through very close year round observation.

Monument	1933	1934
*Arches.....	425.....	275
Aztec Ruins.....	7,546.....	10,142
Bandelier.....	3,906.....	9,457
*Canyon de Chelly.....	435.....	650
*Capulin Mountain.....	14,000.....	22,000
Casa Grande.....	21,771.....	26,776
Chaco Canyon.....	5,817.....	6,068
*Chiricahua.....	-----	15,331 (Pk. Serv. (7/1/34)
*El Morro.....	2,467.....	2,800
*Gila Cliff Dwellings....	-----	75 (Pk. Serv. 7/1/34)
Gran Quivira.....	3,563.....	4,342
*Great Sand Dunes.....	550.....	-----
*Hovenweep.....	425.....	125

(Continued Next Page)

S'WSTERN GENL. CONTD:

(Travel Report Cont'd)

Monument	1933	1934
Montezuma Castle.....	13,899	18,619
*Natural Bridges.....	654	750
Navajo.....	375	675
Pipe Spring.....	2,548	8,544
*Rainbow Bridge.....	385	390
*Saguaro.....	-----	2,500 (Pk. Serv. 7/1/34)
*Sunset Crater.....	-----	2,500 (Pk. Serv. 7/1/34)
*Tonto.....	-----	7,005 (Pk. Serv. 7/1/34)
Tumacacori.....	8,869	11,238
*Walnut Canyon.....	-----	10,000 (Pk. Serv. 7/1/34)
*White Sands.....	12,000 (Part year; 3/4)	33,900 (Pk. S. Spring '33)
*Wupatki.....	1,250	1,080
*Yucca House.....	300	150
<b>SOUTHWESTERN MONUMENTS</b>	<b>102,342</b>	<b>195,392</b>

1934 travel reported-----195,392

1933 travel reported-----102,342

Increase 90.9%..... 93,050

Examining the tabulations closely, we attribute the increase of 90.9% to the following factors:

1. On July 1, 1934 six new monuments were transferred to the Interior Department to become members of the Southwestern system. Increases due to this factor:

Chiricahua-----	15,331	
Gila Cliff Dwellings--	150	
Saguaro-----	2,500	
Sunset Crater-----	2,500	
Tonto-----	7,005	
Walnut Canyon-----	10,000	
<b>TOTAL-----</b>	<b>37,486</b>	or 36.6% of the total increase of 90.9%

2. Last year's 12,000 at White Sands was based on the approximately 3/4 year this monument was in the National Park Service. In this year's report (1934) the entire year was included. Making a monument of White Sands added greatly to its popularity. To

S'WSTRN GENL. CONTD:

determine how much of the 90.9% increase is due to the extra one fourth year reported this year, the following computation is necessary:

12,000-----	3/4 Yr. of 1933
33,900-----	4/4 Yr. of 1934
8,475-----	1/4 Yr. of 1934

8,475 accounts therefore for 8.3% out of the total increase of 90.9% reported for this year.

36.6%-----	increases due to 6 new monuments
8.3%-----	increase due to extra 1/4 year counted at White Sands
44.9%... (45,961 people)....	due to both factors.

\*\*\*

90.9%.....	total 1934 increase
44.9%-----	part due to above factors
46.0%.....	due to increased tourist traffic generally, improvement of roads, publicity, etc.
46%-----	(47,049).... 1934 increase figured on same basis as 1933 figures.

3. Several monuments show substantial increases and these increases have been determined through very close observation the year round and actual visitor registration. A 1933 and 1934 tabulation for these monuments having quite accurate records should give the percent of visitor increase based upon actual count.

	1933	1934
Aztec Ruins.....	7,526.....	10,122
Bandelier.....	3,906.....	9,457
Casa Grande.....	21,771.....	26,776
Chaco Canyon.....	5,817.....	8,068
Gran Quivira.....	3,563.....	4,342
Montezuma Castle.....	13,899.....	18,619
Pipe Spring.....	2,518.....	8,544
Tumacacori.....	8,869.....	11,238
	67,909	95,186

INCREASE-----27,277 or 41.7%

- a. The substantial increase of 41.7% for monuments keeping close check is doubtless directly attributable to increased tourist traffic, improvements and advertising.

SOUTHWESTERN GENL. CONTR:

- b. The few hundred increase at Chaco is doubtless due to increased travel generally together with somewhat improved condition of the road in from the north.
- c. Dandelion's better than 100% increase is due for the most part to the new road to the floor of Frijoles Canyon. Formerly visitors had to walk down and up a 5/8 mile trail.
- d. Increased travel generally and the rerouting of Zion National Park traffic past Pipe Springs account for the better than 200% increase there.
- e. The 41.7% increase at monuments where close checking up is possible indicates that the 46% arrived at above after deducting 6 new monuments and 1/4 year at White Sands, is pretty close to the actual traffic increase.
- f. The spiral road to the summit of Capulin has been greatly improved. With a general traffic increase of more than 40%, a 50% increase estimated for Capulin shouldn't surprise us.
- g. More careful estimates for Archos, Hovenweep and Yucca House cause us to cut the travel estimates for them. However, it is realized that drastic reductions of figures not large in the first place, are not going to affect the grand totals and percentages materially. If their total of 580 were left out altogether, the effect on the total travel of the year would be less than three tenths of one percent!

ANALYSIS OF EDUCATIONAL CONTACTS ON BASIS OF ANNUAL TRAVEL:

In the tables below, we are listing the monuments where educational and general information services are given by our personnel. At some of the monuments having permanent personnel, the number of people contacted is for all practical purposes the same as the total travel count. First, we list the total travel; then the number of educational contacts thru field trips and general information; and finally, the museum contacts. Several monuments have small museums started but conduct only occasional parties through them; others have museum collections and exhibits viewed by practically 100% of the travel. While individual figures below may be subject to some revision, the table as a whole will give a pretty definite and correct picture of our public and educational contacts problem. The length of time field trips and lectures and museum services last, varies a great deal. In general, however, visits last from an hour



S'WSTN GENL CONTD:

and a half to three and a half hours. Of course there are large numbers of half day to two or three day visitors included. Also nominal custodians and part time custodians contact many visitors not included in this table. Hence the figures given should be fairly conservative.

Monument	1934 Travel	Field trip and informational contacts	Museum Contacts
Arches.....	275	50	---
Aztec.....	10,142	10,142	10,142
Bandelier.....	9,457	8,000	---
Canyon de Chelly..	650	400	---
Capulin Mountain..	22,000	3,000	---
Casa Grande.....	26,776	25,000	25,000
Chaco Canyon.....	6,068	5,500	5,500
Chiricahua.....	15,331	6,000	---
El Morro.....	2,800	1,800	---
Gila Cliff Dwell..	75	---	---
Gran Quivira.....	4,342	4,342	---
Hovenweep.....	125	---	---
Montezuma Castle..	18,619	18,619	18,619
Natural Bridges...	750	300	---
Navajo.....	675	200	---
Pipe Spring.....	8,544	4,000	---
Rainbow Bridge....	390	---	---
Saguaro.....	2,500	---	---
Sunset Crater.....	2,500	---	---
Tonto.....	7,005	500	---
Tumacacori.....	11,238	11,238	5,000
Walnut Canyon....	10,000	6,000	---
White Sands.....	33,900	3,500	---
Wupatki.....	1,080	500	---
Yucca House.....	150	---	---
25 Monuments	195,392	109,091	64,261
TOTAL			

Monuments with "Museum Contacts" column unfilled either have no museums or have small collections only occasionally shown.

Field trip and general information contacts..109,091  
Museum contacts..... 64,261

(educational)  
TOTAL/CONTACTS SOUTHWESTERN MONUMENTS 1934...173,352

RATIO EDUCATIONAL CONTACTS TO TOTAL TRAVEL...173,352  
195,392

OR 88.72%

S'WESTERN GENL CONTD:

MEANING OF TERM "EDUCATIONAL CONTACTS"

At the bottom of the previous page we have just figured that our EDUCATIONAL CONTACTS in Southwestern Monuments for 1934 amounted to approximately 173,352 and that the ratio of this figure to the total 195,392 travel for the year is 88.72%.

Unless we are careful, we will jump to the erroneous conclusion that a Park Service unit that reports 350,000 educational contacts for the year has been more than twice as busy, or has done twice as much work, as we have with our 173,352 educational contacts.

To show how far from the truth such conclusion might be, let us take two examples of how 2,000 educational contacts might be reported and determine whether the effectiveness of an educational program can be judged the same:

Example I

Ranger naturalist John Doe of \_\_\_\_\_ National Park or Monument has about 12 minutes allotted him in a varied program at a camp or lodge. About 2,000 people were in attendance. This ranger naturalist describes interesting features to be seen on a nature trip which starts the next morning. His announcement---for it is little more---requires little or no preparation. Since he doesn't have to go into any phase of natural history, he is able to collect his thoughts in possibly 30 minutes to one hour preparation. Thus, counting 12 minutes for the talk; one hour preparation, and a half hour getting to and from the program, his work has lasted not over a total of two hours. His announcement was sandwiched into a program of music, skits, dances, etc., and it cannot be said that 2,000 people came to the meeting primarily to hear the 12 minute talk.

Example II:

Ranger Joe Smith of \_\_\_\_\_ National Monument (could be any one of more than a dozen Southwestern Monuments) has 80 people daily who of their own volition, visit his monument to view its ancient villages and see the materials recovered from excavation. These 80 daily come in about 8 different groups at about hourly intervals during the day. This necessitates Ranger Joe Smith's making about 8 trips each day, 10 people each party, and hourly parties. Thus, this ranger is busy fully 8 hours every working day of the month. With 25 working days monthly, he will, by working a minimum of 8 hours a day, conduct 2,000 people on field trips during the month.

S'WESTERN GENL:

We would then say this about the two extreme examples taken:

Example I:

Ranger naturalist John Doe made 2,000 contacts; his working time was not more than 2 hours at the most, about 12 minutes of which was actually in lecturing or talking.

Fortunately, 2,000 people were in attendance, otherwise he could not chalk up "2,000 contacts".

By no way of reasoning can we say 2,000 people came to the program primarily for the 12 minute lecture, talk or announcement.

Example II:

Ranger Joe Smith made 2,000 contacts also; but the following is true:

- a. Joe Smith worked 8 hours daily, 25 days a month to do it.
- b. He had to be talking almost the total time during the month.
- c. His 2,000 people came of their own volition.
- d. He worked a minimum of 200 hours making the 2,000 contacts.
- e. He went more thoroughly into all phases, or some phases, of a story than did John Doe in example I.

YET IN OUR "CONTACTS" OR "EDUCATIONAL CONTACTS" TOTALS FOR THE YEAR, WE ADD THE CONTACTS OF TYPE DESCRIBED IN EXAMPLE I AND THOSE OF EXAMPLE II RATHER INDISCRIMINATELY! EXAMPLE I FOR 2,000 CONTACTS REQUIRED 2 HOURS; EXAMPLE II REQUIRED 200 HOURS, OR ABOUT 100 TIMES MORE HOURS.

This distinction is highly important for in Southwestern Monuments we have a preponderance of educational contacts to make which are classified under EXAMPLE II. Relatively small parties, grouped at approximately hourly intervals, with approximately hourly trips, requiring personal guidance the whole time of their visit.

It is also seen that unless we carefully explain the nature of the contacts, merely announcing the total number is no criterion of how busy a staff of ranger naturalists, rangers and custodians are keeping themselves. To see this, we have merely to recall Example I with 2,000 contacts made in 2 hours; and Example II with 2,000 contacts made in 200 hours, or a whole month.

### S'WESTERN GENL:

As we close this explanation on the nature of our educational contacts, we wonder whether or not a sort of multiplying factor, or common denominator couldn't be found whereby we could reduce the "educational contacts" to "contact minutes per visitor", or contact hours per day per ranger or ranger naturalist. If such factor could be found, we might be able to produce a tabulation each month which would be a true reflection of the effectiveness of our educational work. In Southwestern Monuments our contacts practically belong to Class or Example II as described above, and if we had a very great number of the type described in Example I we would have to carefully segregate the two types in order to get a clear picture of our problem.

### CONSTRUCTION:

ECW Camps continue in operation at Bandelier and Chiricahua national monuments. Trails construction, cleanup, parking area work and landscaping are the principle projects being worked on.

FWA work at Montezuma, Tumacacori and Gran Quivira is nearing completion. At Aztec the restoration of the Great Kiva is almost finished while the contract time is now running on the new Administration and Exhibit Building.

In our Report for October we hope to carry a list of the completed Public Works projects in the monuments for by then practically all projects will be finished.

### PERSONNEL:

The status of personnel as listed in the reports for the last two months has remained unchanged during September, that is, the month closes with personnel the same as at the first.

### FIELD TRIPS:

During the first four days of September several of the headquarters staff made a field trip to Chiricahua National Monument to assist in handling the Dedication Program held there on Labor Day. About 7,000 people were in attendance.

On September 12 Bob Rose made a field trip including Montezuma Castle, Walnut Canyon, Canyon de Chelly, Aztec Ruins, Chaco Canyon, Bandelier and White Sands national monuments returning on the 27th.

Chief Clerk High Miller made a field trip to Chiricahua about the middle of the month on business pertaining to the CCC Camp there.

SOUTHWESTERN MONUMENTS:

101

SEPTEMBER REPORT 1934.

SOUTHWESTERN GENL:

PARK SERVICE OFFICIALS:

Park Service Photographer George Grant has been in the district several weeks working especially at Canyon de Chelly, El Morro, Bandelier, Aztec Ruins and Casa Grande. Important photographic work remains to be done in nearly all of the remaining monuments in the system.

Assistant Forester Wirt has been working in the Southwestern District for a week or more going particularly into problems involving fire hazards.

TRAVEL:

September 1934 compared with September 1933 shows a material increase in visitors in most of the Southwestern Monuments. Increased tourist traffic on the road, improved facilities and favorable publicity are probably the factors contributing to the increase compared with 1933. However, travel in northern monuments is showing the usual Autumn decline while already in the monuments of southern Arizona it seems the usual winter increase is starting.

CLOSING:

All in all, September 1934 seems to have been a very satisfactory month among Southwestern Monuments. Already cold snaps are occurring in northern Arizona while the summer in the southern part seems to be definitely broken. Rains in the mountains and higher plateau regions are improving range conditions. The lower basin and valley areas are still suffering considerably from lack of rain but as the Autumn continues, the rains will probably occur at lower and lower elevations breaking the drought.

A good many of the boys about the office are a little excited just at the present time but they will be back to normal as soon as the World Series ball games are over.

Cordially,

FRANK PINKLEY,  
Superintendent.

RFR/

SOUTHWESTERN MONUMENTS

102

REPORT FOR SEPTEMBER 1934.

## REPORTS FROM THE MEN IN THE FIELD

### CHIRICAHUA NATIONAL MONUMENT

By Charley E. Powell, Ranger

We will begin the reports with the following good letter from Ranger Charley Powell, "Chiricahua Charley," of the Wonderland of Rocks. He has been at this monument during the past three months and in a few weeks will fold up his tent, take down the flag and wait for the opening of another season.

Dear Mr. Pinkley:

We have had a fine summer here in the Wonderland. Soon we will close the Ranger station and I hope no one will notice too closely, for I am afraid that our eyes will show a little moisture when we lower our flag for the last time from in front of the first temporary Ranger station. The privilege of being a part of the Park Service and the view of the public so obtained has been an experience which will be treasured for a lifetime. There may be other jobs, other Rangers, experiences, and Parks, but Chiricahua for the past three months has been an experience which will never be duplicated.

The Dedication is now history. After the hasty preparation, and the flurry of the unusual crowds, the usual routine appears quite tame in comparison. Each of us had different experiences during the big day. We watched the pits being dug, the fires being built, and the barbeque being roasted. We saw Mr. McDowell and his able men erect their camp, and the early arrivals pour in. In fact, we kept pace with everything that happened until things got too fast for us.

Sunday evening there were about two hundred and fifty cars in the camp ground below the CCC camp, and a camp fire party was held which was not on the schedule, though we did have a good time. There was no program arranged, but the boy scouts built a fire and everyone present was privileged to call upon whom they wished to sing, dance or recite, with nothing barred but politics. Wasn't it fun?

Monday morning, I arrived at the Ranger station shortly after six. The cars were streaming past when I got there. Mr. Newell of the highway patrol passed the station as we started our count and proceeded to the top of the hill, where he counted all who were ahead of him. These were added to our count. Our tally sheet was made in the following manner. We had two small counting machines, which counted to one thousand. One was used to count cars and the other passengers. The record stands as follows:

7:00 AM	1,000	Passengers	11:25 AM	1,000	Cars
8:00 AM	2,000	"	12:30 PM	1,120	"
9:00 AM	3,000	"			
10:30 AM	4,000	"			
11:30 AM	5,000	"			
12:30 PM	5,523	"			

## REPORTS FROM THE MEN IN THE FIELD

### CHIRICAHUA NATIONAL MONUMENT (CONT'D)

At 12:30 PM the traffic was held for an hour, permitting the departure of about two hundred cars which left early, and at 2:30 PM the traffic was again directed downward, until all had departed. The final count as shown by the counting machines was 6,476 passengers and 1,573 cars.

After the road became clear, Mr. and Mrs. Thomas Robinson of the American Consulate at Nogales, Sonora, Mexico, and Mrs. Pearl Ashcroft of Poignton, Devonshire, England, were shown the view from Massai Point. These visitors arrived while the traffic was streaming down the grade.

The next morning, Mr. McDonald, Chief Chef, brought us a sample of the barbecue.

(I hope that someone, who attended the Dedication, will write a full and complete article on the subject. This was one time when "Charley was not there.")

The day after the celebration, one of the visitors who lingered overnight timidly approached the Ranger station and with a familiar gesture reach for his hip pocket, saying that he had a real treat for us. Before we could either accept or decline, he poured out a small quantity of white sand and told us all about the wonders of a certain beautiful spot over to the east. Do you suppose that the custodian of the deposed baby was AWOL? Do you suppose that mysterious visitor intended removing one of our balanced rocks to attract more traffic to the White Sands?

We miss the engineering crew, Mr. Gene Gordon, Mr. Knox Borden, Mr. and Mrs. Bob Harris and Mr. Walter Attwell, since the celebration. They had seemed a part of the force here, and the work they accomplished will remain to remind us of their stay.

The CCC boys who took time off in lieu of the overtime earned while preparing for the celebration, have now returned, and the work which began before August 1st is being continued. They are moving into the new barracks, three of which are now complete. These barracks are being constructed by the Army Quartermaster Corps under the supervision of Lieutenant Rucker and Sup't. Charles Dixon.

We have had 9,000 visitors at Chiricahua since July 1st. A complete report will be forwarded to your office shortly. We count our accomplishments as follows: Temporary Ranger station established and a working system of checking traffic and of making contact with the public evolved. Passable story of the geology of the region; including a printed article by our Park Service Geologist, Mr. Robert H. Rose, and another by Mr. Carl Trischka, geologist of the Phelps Dodge Corporation. (We are pleased to note that these two authorities agree.) Classification of the principle trees and shrubs native to this region. Except for future discoveries, we are reasonably sure of our trees. A plan of study of the wild flowers and

## REPORTS FROM THE MEN IN THE FIELD

### CHIRICAHUA NATIONAL MONUMENT (CONT'D)

the acquisition of two books on the subject. There are many flowers here which are rare, and which are not classified Western Wild Flowers, but we have made some contacts which will enable us to classify them when they bloom again.

A plan of study of Wild Life. We have learned the haunts of deer and several interesting animals, and have acquired three books on the subject. We are now able to show them to visitors when we find any who are sufficiently interested to follow us. Two subjects which we have not had time to study very much, will be taken up later. These are the study of insects and reptiles. This will be an interesting field, as we have noticed that there are differences between the snakes and lizards found here and those found elsewhere, and we hope to find differences in the insects as well. We have noticed nothing unusual about the birds, but may later.

We know that Mr. Dale S. King, Jr. Naturalist, will help us to get our studies under way next year, and we have Dr. E. D. Ball to help us too.

In addition to the above mentioned studies, we might mention that practically nothing has been done so far about Archaeology. This is a rich field for Indian relics, as we know it to be the haunt of the Chiricahua branch of the Apaches. We have its history as given by the Hands brothers, and Mr. Neil Erickson, who have lived in this vicinity since the time of the Indians. We have visited caves containing Indian writings, and have collected a few relics, but because we have not yet acquired a museum in which to house artifacts, not much has been done in this line.

I am enclosing a copy of Ass't. Forester Wirt's report. This, together with a report of the celebration which I suppose will be written by some one of the NPS visitors who attended the celebration, will be about enough from Chiricahua this year.

Goodby and good luck, until next year. Yours very truly,

C. E. (CHARLEY) POWELL  
Ranger, Chiricahua National Monument



## REPORTS FROM THE MEN IN THE FIELD

### BANDELIER NATIONAL MONUMENT

By Earl Jackson, Custodian

Dear Mr. Pinkley: Following is the report on Bandelier National Monument for the month of September, 1934.

Visitors: Travel, while considerably lower than for last month, reached 1,492, which was over twice the figure of 634 for September, 1933. Our visitors came in 393 cars, from 34 states, the District of Columbia, and six foreign countries (Ireland, England, Germany, Greece, Spain and China). So that, although the close of summer cut our travel considerably, the regional representation is still quite good.

Weather Conditions and Roads: Rain has been good in this region and roads have suffered. On several occasions, visitors have had to wait for washes to run down before they could cross them. One tourist lost a new car in Tesuque Wash during a flood. On the mesa between here and the paved highway, the road is good, but once down Gulebra Hill they are abominable. Precipitation in Frijoles this month amounted to 1.85 inches.

Special Visitors: On August 27, I met Ansell Hall, Carl Russell, Leffler Miller and Louis Shellbach of the Field Division of Education, in Santa Fe. Carl and Leffler had already been out and talked with me. Ansell almost came out to Bandelier, but didn't.

On August 29, Louis Shellbach came to Bandelier and spent the better part of two days with us. His museum organization ideas sound mighty good to me, and I hope to see him again soon. On August 28, Dr. William Mann, Director of the Washington Zoo, spent a short but interesting period with us. On September 1, George Grant, Photographer, left after a five day stay. If his pictures turn out half as good as they looked through his view finder, Bandelier should be one of the pictorial scenic beauties of the world. On September 2, E. S. Larsen, Jr., Professor of Petrography, and Kirk Bryan, Associate Professor of Physiography, both of Harvard University, came to Frijoles to tie in some finishing touches to a geological survey they have been making of the region for several seasons. Dr. Sylvanus G. Morley, of fame in Mexican archaeology, paid a short visit on the same day. W. H. Dunham, an iron and steel manufacturer from Evanston, Illinois, was a very interested visitor. On September 5, Mr. Kittredge, Chief Engineer, and Walt Attwell, Associate, appeared. Mr. Kittredge was on short time, leaving on the afternoon of the 6th, but was as busy as three men while he was here. I believe he was favorably impressed with developments here, and look forward to his return. Walt remained here until the 6th, and left things so busy he will have to come again soon. Alfred Peterson was a welcome visitor for a night and half day. Was from El Morro and headed back to the University of Arizona. On September 7, Burton Frasher and son, photographers, of Pomona, California, were in, and spent the day taking pictures in the Canyon. Frashers need no introduction in the Southwest. On September 13, Chuck Richey and Frau arrived. He spent three active days with Assistant L. S. Architect Morse and myself going over everything here which had a landscape interest.

## REPORTS FROM THE MEN IN THE FIELD

### BANDELIER NATIONAL MONUMENT (CONT'D)

On September 19, John L. Nelson, of the Museum of the American Indian at New York, spent an afternoon with me. With his party was Miss Harriet Hammond of Peabody Museum. On September 22, Assistant Superintendent Bob Rose came in. I wish he could have stayed a week, but we got a good deal accomplished in the two days he spent. He straightened me out on a good part of the geology of the region, and one half-day we spent going over the museum plan.

Improvements: C.C.C. work has gone on smoothly, with no interruption on account of weather. The Lower Falls trail is now entirely finished clear to the Rio Grande river. A week will finish the upper canyon trail to the Upper Crossing, seven miles west. This trail is going to be one of the most beautiful scenic trips in the southwest. The trail side cleanup down the canyon is finished, and is going rapidly ahead up stream. Planting of trees in the camp ground has been well under way for several days. Fencing of the detached portion of the monument is drawing toward a close.

Nature Notes: A recent estimate on wild animals in Bandelier National Monument was as follows: 200 deer, 6 bear, 25 raccoon, 12 beaver, no lion, 25 badger, 25 coyote, 50 gray fox, 25 bob cat, 25 ringtail cat and 25 civet cat.

I fear a hard winter is in store for rodent life here. I have seen not one solitary pinon nut or acorn in many a ramble through wooded areas. One also wonders what the Merriam turkey will do without one of its favorite foods, the pinon.

Recently a visitor picked up the large molar of some herbivorous creature, which was on top of the ground near the trash fill of the Long House. I got interested in the size of the tooth, and sent it to Raymond S. Hall for identification. Ward C. Russell, Assistant Curator in Osteology of the University of California, returned the specimen. I had had a grave fear the molar might be an abnormally large horse's tooth, and expected a great horse laugh to be forthcoming from the folks hereabouts, but it turned out to be the tooth of a bison.

Bison were known to be rare west of the Pecos, but the early settlers reported a few. This molar was undoubtedly thrown out with trash by the aboriginal inhabitants of the Long House.

Practically no fishing has been done in Frijoles Canyon this month. One encouraging bit of information I recently got from the Secretary of the New Mexico Fish and Game Commission was to the effect that the State is quite willing to stock Frijoles Creek with 20,000 additional trout by the first of next July.

## REPORTS FROM THE MEN IN THE FIELD

### BANDELIER NATIONAL MONUMENT (CONT'D)

Fire Report: Ordinarily no fires would be expected in this section after the middle of September, but every once in a while the powers decide to show us mortals they can be sportive and erratic. Two fires occurred this month, and I am going to quote the exact report rendered by James Fulton, ECW Forestry Foreman for Bandelier, as he led the crews which handled both blazes.

#### Fire Report by James Fulton

After spending two days on a fire fighting trip, eleven men returned to camp with blistered feet and numerous aches. However, the fact that we had successfully performed a difficult task heartened us considerably. After supper on the night of September 9th, a fire was reported by telephone to camp headquarters. The location was supposed to be about one mile east of camp on the south mesa. Four local experienced men, Custodian Jackson, and I searched for two hours, but found no fire. We returned to camp, stumbling down the rock strewn trail in the dark.

At 8:45 the next morning another telephone call reported the fire to be at Painted Cave. Sup't. Chase reached me at station 55 on the upper trail where I was working a crew on trailside cleanup. It was 9:20 when ten of my crew and I left only to stop in camp long enough to get tools and rations. At 2:15 we arrived at Painted Cave and no fire was in sight.

In order to reach Painted Cave, we had traversed twelve miles of rough trail in four hours and fifty-five minutes. We rested at Painted Cave for ten minutes as we had been doing each hour. Then we got to climb the mesa which provides the locus of the cave, in order to obtain a better view of the surrounding area. That fire was some place in the vicinity, so we were going to scour the country until it was found. Just as we began to climb a cowboy came along and told us that he had just ridden past the fire, which was at Yapashi Ruins.

We labored up to the top of the mesa another four and one-half miles. We reached Yapashi, where the brush, remaining within the burned area, was all that was burning. It being 5:45, we immediately partook of fire rations. There was no water, so we tried to forget our thirst. As soon as supper was over, I dispatched two men to search for water, while the rest of us put the finishing touches to extinguishing the fire.

Within an hour not one burning ember was visible so I posted two guards whose duty it was to extinguish any blazes which might break out. At ten O'clock the two boys I sent for water returned with the canteens as empty as before. To be sure it was a disappointment, but there was reason to believe water could be found in the light of day. All through the night, those who were not guarding the fire, were trying to get some sleep. I never fully appreciated how hot the side of a man next to a camp fire and how cold the side away from the fire could be until that night. The first light of day found two of the men renewing the

## REPORTS FROM THE MEN IN THE FIELD

### BANDELIER NATIONAL MONUMENT (CONT'D)

search for water while the rest of us made a thorough inspection of the fire. We found that the fire was completely out, thanks to the work of efficient guards. The extent of the fire was about two-thirds of an acre. It was on a north slope in a stand of *Pinus ponderosapoles* with no reproduction or underbrush. What had actually happened was that lightning had struck a live tree and ignited the duff and litter. This probably took place on the afternoon of September 9th when we had a small rain storm here in Frioles Canyon. The duff and litter burned slowly by virtue of the fact that there was little wind. Had there been an appreciable amount of wind, the fire would have spread rapidly. There was none other than soil damage, the trees on the area being only slightly scorched.

The fire being suppressed, there was nothing for us to do but eat breakfast and wait for the water monkeys to return. For thirteen hours we had been without water. During the hour before the water boys returned, the waiting boys were casting glances in all directions. I could tell they were anticipating the return of the boys and wondering if they were going to have water with them. A disappointment like that of the night before would have been tough to take. However, at eight o'clock the two boys returned and thanks to Him they were loaded down with full water bags. The search had taken four hours and had led the two boys for a distance of four or five miles. We headed northwest at nine o'clock and soon picked up the trail for camp.

On the afternoon of September 25th, lightning struck a snag, literally blowing the upper three-quarters of it to pieces and setting it on fire. I was riding to camp on a truck at five p.m. when I spotted the fire just as we had passed the warehouse. I stopped the truck and determined that the fire was in the direction of Saint Peter's Dome just this side of Alamo Canyon. We proceeded to camp, I picked up a crew of men, and we were well on our way by five thirty. At 6:15 we reached the fire after having crossed four canyons without even seeing a trail, let alone walking on one. We extinguished the margin of the fire and then cut down the remainder of the burning snag. After burying the few remaining logs that were burning, we built a camp fire and waited so that we could walk home in the light of the moon. The moon obligingly appeared within a couple of hours, and we began the trek home. This experience was much more enjoyable than the Yopisi Fire. We traveled a little less than four miles, a distance which was not objectionable even though four canyons had to be crossed without aid of a trail. End of fire report.

General: It is interesting to know that New Mexico is fast realizing the worth of its National Monuments and Parks. At a conference held in Santa Fe shortly after the first of September, State Highway Engineer Meely instructed the district engineer to start the relocation of State Route No. 4, as a trunk line from Santa Fe to Mesa Verde, passing near Bandelier.

## REPORTS FROM THE MEN IN THE FIELD

### BANDELIER NATIONAL MONUMENT (CONT'D)

Mr. Hacey has asked Park Service engineers to cooperate in the location of that portion of the road which would near Bandelier's boundary. The prospective road would leave Santa Fe on Agua Fria Street, cross the Caja Del Rio Grant to White Rock Canyon opposite the mouth of Ancho Canyon, then down a rimoon into the Rio Grande, to a bridge on the River. From here the road would follow the north side of Ancho Canyon, between the detached and main portions of Bandelier National Monument on into the Valle Grande and the Jemez Mountains.

This road would not only cut twenty miles from the distance to Santa Fe, but it would open one of the greatest travel vistas in the Southwest, taking in Santa Fe, Bandelier National Monument, hearing Chaco Canyon, Aztec National Monument, and on to Mesa Verde National Park. A new road would be the answer to a problem on present State Road No. 4. This road is very poorly located, and even with a lot of repair work would never be a good, safe route.

\* \* \*

### AZTEC RUINS NATIONAL MONUMENT

By John Will Faris, Custodian

Visitors for the month total 1,673, which is the largest September in the history of the monument under my supervision. We feel that the visitors have been very effectively handled, though we did lose Mrs. Rogers, Ranger, the last of August. We have been very fortunate in our numbers coming in groups and at reasonable intervals, thereby making it possible for one man to handle a group very satisfactorily. Since this is also the end of our travel year, I take pleasure in reporting the largest year since 1930-31, the total being 10,142 for 1933-34 travel year. We hope that with the help of our various departments we have been able to give this number the maximum amount of service with the minimum personnel.

This year has seen excellent cooperation between our Educational Departments and the monument. Able assistance has been given by Dr. Bryant, Ansel Hall, Carl Russell and Louis Shellbach and our own Naturalists.

The necessary mess and unsightly appearance of many features connected with construction are, of course, regretted, but our visitors seem particularly appreciative of the fact that we are attempting to preserve these prehistoric features and have gladly accepted detours around rock piles, under scaffolds, etc.

George Grant, photographer, was in for a time and, of course, we enjoyed having him, with his genial manner.

We have had many comments, nearly all favorable, on the reconstruction

## REPORTS FROM THE MEN IN THE FIELD

### AZTEC RUINS NATIONAL MONUMENT (CONT'D)

of our Great Kiwa and such men in the Archaeological field as Dr. A. V. Kidder, Paul Martin and Earl H. Morris, have been high in their praise of this project

Naturalist Rose, from Coolidge, stopped off with us a couple of nights and we had the pleasure of going over in some detail monument problems which were contingent upon decisions of either yourself or Mr. Rose.

I am pleased to report in this month's report that the construction of our Administration unit is now under way. The contractors have arrive with minor equipment and actual construction will begin within the next few days. Everyone seems to be looking forward to an early Fall and rather severe winter. Just why so many entertain this idea I cannot say. We have hopes of no interference from the elements in our work.

Mr. Morris expects to leave Aztec in about ten days or two weeks and I certainly want to express our gratitude and appreciation for his constant help and cooperation. Through his help Miss Adams was carried, without cost to the Government, an additional month. During this month, and with Mr. Morris devoting almost his entire time to this work, restoration of some of the most unique specimens ever taken from our ruin was made possible. To complete the index system which we have hoped for, these additional pieces had to be indexed and a duplicate of the entire system made. Of course, our Civil Works was finished and we could not complete it under this program and, having no money within our own Department for its completion, Mr. Morris, again without cost to the Government, retained the girl, who had worked on this index for a period of some twenty odd days and your office is now in receipt of this completed duplicate set.

We have asked several of the visitors mentioned in this report to comment on this system and give us recommendations for its betterment, and without exception, it has been pronounced the most complete and accurate system of museum index yet devised.

The problem of roofing our Great Kiwa of course was in itself one of magnitude, and here again Mr. Morris supplied from without, two men and a light truck, which have been used almost constantly for the past six weeks. The man in charge of the roof work was the more or less internationally known figure, Gustav Stromsvik, of whom we have read in Temple of the Warriors and other publications about restoration, etc., in Central America.

Jim Hamilton and Chuck Richey have been down several times during the month. Gay has reported for several visits. With every good wish to the monuments personnel and a sincere hope that each has experienced in this "National Park Year" as satisfactory a season as we.      John Will Paris.

\* \* \*

REPORTS FROM THE MEN IN THE FIELD

CHACO CANYON NATIONAL MONUMENT

By Thomas C. Miller, Custodian

Dear Mr. Phippley:

The activities in the Chaco Canyon National Monument for the month of September are:

General: The approach roads have been passable, but very rough, due to fact that there was no maintenance and the September showers made them quite slippery at times. The Custodian pulled two cars out of mud holes within the monument boundaries, south of the Chaco Canyon bridge on the 20th. These cars were stuck in the middle of the road after a light rain. Travel for the month was 52 persons less than for September, 1933, but what they lacked in quantity they made up in quality. The Indians held two sqaw dances in the Monument during the month. At least 300 Indians attended the dances, but are not included in the travel record. All office work has been kept up to date.

Travel: Six hundred and seventy people visited the monument in 212 cars and busses. Thirty-one states, Washington, D. C., and two foreign countries, Canada and Austria were represented. These visitors were conducted through Pueblo Bonito, about 40% of this number through Chetro Ketl, 20% drove to Rinconado and visited the great Kiva. Some experiments were made with Caravans, but I find it does not work out so well due to fact that you can not contact all the cars or divide your time with the visitors. When you leave Pueblo Bonito with your caravan en route to Chetro Ketl and Rinconado and say you have another party coming into Pueblo Bonito, they will miss the Ranger, climb around on the walls of the Ruin and run the chance of getting hurt or tearing down a good wall, then leave the monument before the Ranger returns. I find the prehistoric trail in back of Pueblo Bonito, where you climb to the top of the mesa is the most popular trip in the monument. From the top of the mesa you can not only see and photograph Pueblo Bonito, but can walk on up the mesa to the east one-half mile and see Chetro Ketl as well as many of the other Ruins and points of interest in the monument. That is also a fine place for a nature trail. Lots of wild flowers are found along the trail. Many kinds of birds and lizards are seen. At the top of the hill people who are interested in Geology can find many fossil and concretions. Overnight campers totaled 48.

Excavations: The School of American Research has continued the work of preserving the Kives in the East Tower of Chetro Ketl, this work is about 95% complete. Excavation of a small house ruin across the arroyo south of Yellow House has proceeded. To date nine rooms have been excavated to the latest floor level, and two Kivas opened. Beneath this level in one of the rooms a full length burial was found. The burial was in an adobe cyst five feet six inches by one foot six inches in width, one and one-half feet beneath the floor. This burial was found September 19th, it was protected by stone and planks of wood. The skeleton was in fair condition and that of an adult male. No artifacts or cultural materials were found other than a little matting with the burial.

## REPORTS FROM THE MEN IN THE FIELD

### CHACO CANYON (CONT'D)

Another small house-ruin has been partly excavated across the Canyon east of Chetro Kuti. This ruin has been left in a bad state of preservation. From studying the location and all, I think this ruin is located on Section 18, belonging to the National Park Service. Part of this excavation was made in 1933.

Special Visitors: State Senator Mr. Clarence F. Vogel and party were here September 2nd. This was Mr. Vogel's first trip to the monument in several years. He expressed much interest in the monument. Ranger Fish of Montezuma Castle, Mrs. Fish and daughter (the little mimmow) visited the monument on the same date.

Mr. John D. Rockefeller, Jr. and son, David, spent the day here on September 5th. This was Mr. Rockefeller's first visit to this monument and I can honestly say he knows his ruins. He visited the 800-room Pueblo Bonito, Chetro Kuti and the Great Kiva at Rincónado. What seemed to puzzle him most was that he could not understand why these Bonitoans would plaster over the finest type of masonry ever found in a prehistoric wall in the southwest. Mr. Rockefeller and party ate their picnic lunch under our little ramada on the camp ground. We feel honored in having such visitors as Mr. Rockefeller and we hope he will return.

Mr. George Grant, Park Service photographer, and Mr. Louis Shellbach of the Educational department at Berkeley arrived September 10th. Mr. Shellbach departed on the 11th. He left some good ideas about museum and handling visitors. Mr. Grant remained here at Chaco until September 15th.

Assistant Engineer J. B. Hamilton arrived on the 16th. Mr. Hamilton and I mapped and measured a trail through Pueblo Bonito, photographed and measured fallen walls, established a permanent station and took measurements of the four-story wall at the back and to the north side, opposite the east wall of the court.

Professor and Mrs. George S. Monk and party from the University of Chicago were monument visitors on the 19th and 20th. Assistant Superintendent Robert H. Rose arrived and departed on the 21st. Mr. Rose and I spent two hours looking things over, inspecting excavations, telephone lines, etc., including getting his car stuck in the sand at one location. We hope Mr. Rose doesn't wait too long to come to see us again. T.C. Miller, Custodian.

\* \* \*



## REPORTS FROM THE MEN IN THE FIELD

### MONTEZUMA CASTLE NATIONAL MONUMENT

By M. L. Jackson, Custodian

Dear Mr. Pinkley:

Have had quite a lively month on this monument. This month, in fact, has turned out to be among the biggest in number of visitors that we have ever had. September is usually one of our best months. Our records show that we had 1,735 for September, 1933 and 1,839 for this year, or an increase of 104.

Associate Engineers Attwell and Gordon spent a night with us during the month. Mrs. Gordon accompanied them. It is the Gordon's first trip to our monument and we invite them to call again. Ass't. Sup't. Robert Rose was a visitor. We had hoped that Bob would be able to spend a little more time with us but he was on short time and promised to drop in again soon. Louis Shellbach dropped in for a few minutes last Sunday afternoon. We enjoyed his first short visit but was so busy with visitors that I did not get to talk over a number of things that I had in mind.

I was away during the latter part of July and a part of August. The monument was administered by Ranger Frank Fish and was assisted by Charley Steen of Tonto National Monument. On my return, I found everything was carrying on in good shape, and have heard some mighty nice things about both boys since Charley has gone back to the Tonto, where I hope and believe he will make good. Will not be at all surprised that if in the near future we hear of him broadcasting to the world that the Tonto is the finest cliff dwelling in the entire southwest. Needless to say I will be a little sore if he does after working at Montezuma Castle.

Of course, Fish being an old hand as a Ranger, we just naturally expect him to go over big with the visitors. Just to show you that he makes no discrimination as to class or color, we recently had an early visitor, a colored gentleman from Los Angeles. Fish showed him through the Castle and on leaving he invited Fish to call on him any time he was in Los Angeles, and said his address would be the city jail as he hung out there most of the time.

Mrs. Fish and little daughter are visiting friends and relatives in New Mexico. We think she ought to hurry back with the baby daughter that has the million-dollar smile.

A representative from one of the nearby dude ranches was a visitor this afternoon and reports that they are expecting a large number of guests this winter.

Some work has been going on here during the summer under PWA. As I have not taken any active part in the work, prefer to let those that have report on it.

\* \* \*

M. L. Jackson, Custodian

## REPORTS FROM THE MEN IN THE FIELD

### NAVAJO NATIONAL MONUMENT

By John Wetherill, Custodian

Dear Mr. Pinkley:

I have just returned from the monument after a three days' trip with Jimmie Swinnerton and Irvin Cobb. Irvin Cobb was after local color. He got lots of it as his horse put him down just as we were leaving Keet Zee, and we had a hard rain in the Marsh Pass. The Shonto road is almost impassable. The wash-outs were bad and the rocks in the road are fierce. Cobb will write up the trip when he feels the spirit moves him. I know it will be good. I would feel so small if I tried to write it and a good story from Cobb came out that I would never write again.

The trails we put in except on the hillsides are all gone. There are many more bad washes than when you were in last. Milton Wetherill has been doing some good work on the trails near camp. He cannot get far away as someone is dropping in on him at all hours. There will not be many more "this year" over the Shonto road unless there is a lot of work done on it. There has been 97 at Be Ta Ta Kin in August and 34 at Keet Zee. We have had quite a few interesting experiences here since our last report went in. Jimmie Swinnerton and party came in with us from the snake dance. Dr. Parks from Las Vegas, Nevada, was with Jim in his own car, and the car stopped running on Cedar Ridge between Hoteville and Yula. It was nine o'clock when we got the car to Yula and moved on to Kayenta, arriving there at twelve thirty. The next day Irvin Cobb came in with his driver, and the following day we all started for the ruins. After getting in a heavy rain storm in the Pass and losing an hour and a half and having a lot of trouble getting over the rocks on our good road, we arrived at the top of the mesa above Be Ta Ta Kin. Our Navajo "Bitsi Clitsoie Bogay" was waiting for us with horses and pack outfit. By nine o'clock we had everything at the camp, and Milton was making exterrinators (Milton's biscuits) for supper.

The party all visited the mines and thought they were wonderful, as usual, and then started for Keet Zee. We found the trails badly washed out. After three hours in the saddle we arrived at Keet Zee. The party were all good sports and had only a few remarks to make on the hard saddles and rough horses. Irvin Cobb with his two hundred and forty pounds had an idea that his horse was played out. He found out differently the next morning when the horse got frightened at the Keet Zee devil, and left Irvin lying on his back in a sand bank. He was able to make it back to the car at Be Ta Ta Kin and on to Kayenta. He was pretty sore the next day. The riding and the car jolting over the rocks had as much to do with his soreness as the fall from the horse.

Sunday evening a boy 13 years old and his dog, Rover, hitch-hiking through from Fredonia to St. Louis stopped to ask the way to Mexican Hat. He had no food and no water, and expected to get through the 55 miles of dry country on what he could kill with a small gun that he had with him. We tried to hold him here, but he went on regardless. We let him go for about an hour and then sent Preston Coston and Bob Lucks after him. After he had eaten his supper, Mrs. Wetherill let him have some food and her flashlight to go down the road about a mile to feed a hungry dog that he had passed while he was on the way to Mexican Hat. John D. Rockefeller, Jr. and his son, David, happened to be out walking in that direction, and they found the dog in such a condition that we had to send a man down to kill it and put it out of its misery.

## REPORTS FROM THE MEN IN THE FIELD

### NAVAJO NATIONAL MONUMENT (CONT'D)

In the morning, Mr. Rockefeller gave Preston money to take the boy to Flagstaff and buy him a ticket for St. Louis for him and his dog and enough money for food for both. They got out of Flagstaff at 11:40 after much trouble keeping the boy away from his dog.

This is enough for this time, except to say that Jimmie Swinnerton said that it would make a good story. John D., one of the richest men in the world, and Ervin Perry, the poorest boy, going down the road afoot with flashlights to find a starving dog. Hooten John.

\* \* \*

### NATURAL BRIDGES NATIONAL MONUMENT

By Zeke Johnson, Custodian

Report time again and here I come with mine. This month has been one of the best in the history of the monument as over 200 people have been there. The associated civic clubs of southern Utah have just held the monthly meeting here and San Juan county never before has had such an important event; such a representative group never gathered here before and talk about boosters for the scenic wonder of this county!

Many people visited the Bridges beginning on Friday and continuing over the week-end. We registered 93 and 20 or 25 got away without registering. There were boosters from most all the southern counties including two members of the road commission, members of the Salt Lake Chamber of Commerce, all the leading papers of the State had reporters here. We also had Samuel O. Bennion, Manager of Desert News of Salt Lake City. I feel that much good will come from the meeting. They left here Monday morning via Monument Valley with myself and Mrs. Johnson accompanying them to the goose-necks. We then bid them goodbye at the Mexican Hat Bridge. All were very enthusiastic over the scenery here and declared they would work for the road to connect bridges with the Wayne County Wonderland via the White Canyon and Dandy crossing. It seems that the Wayne County Wonderland will soon be declared a Monument, then the hook up between Mesa Verde and Bryce Canyon will soon be complete, according to word received.

The weather here has been ideal with not much rain, but enough to keep things looking very fine and insure plenty of water. I have done quite a lot of work on the road down the mountain south of Bears Ears, so the roads all the way from Blanding are in good shape, and I received many compliments concerning the patching up I had done and at my leisure hours I made needed improvements on the trails between Edwin and Augusta Bridges.

There are lots of pine nuts near the monuments, so I know we will have a number of people going out there until snow shuts them out. I am surely rejoicing over the thoughts of having Custodian's quarters next season. I know there

## REPORTS FROM THE MEN IN THE FIELD

### NATURAL BRIDGES (CONTD)

I know there is enough traffic to justify some very fine improvements and we will soon have better roads and will have to be prepared to take care of the increase in visitors.

Zuko Johnson

\* \* \*

### CAPULIN MOUNTAIN NATIONAL MONUMENT

By Homer J. Farr, Custodian

Dear Mr. Pinkley:

Visitors for the month of September, 1934, to Capulin totaled about twenty-five hundred.

FERA work on Roads and Trails: Our FERA work has been quite satisfactory this month. We have also been able to complete the fencing of the monument, with a very good cattle guard which was made according to the specifications of the Federal Bureau of Public roads and even better for we used 90 pound rails instead of forty-five. Two stone posts forty inches square and six feet high made from red lava set in cement are in the center and at the right and left of the cattle guard, giving a sort of park entrance effect. With the fence now completed and a splendid cattle guard and good gate, we should be able to keep the cattle off the Monument and the road and trails will be much more easily maintained.

Parking Area: The parking area has been widened and made slightly longer and Mr. Richey's request for the retaining wall, stone laid in cement with wing to the north, extending along the road for about 100 feet, has been completed.

Rim and Crater Trail: This trail has been widened according to request from Mr. Richey, but is not complete. The trail to the bottom of the Crater will need considerable work before it is finished and several rests or stone seats will be constructed at desirable vista points along the rim trail. All FERA work has been stopped in the county until October 1st, at which time we hope to be able to resume.

Homer Farr, Custodian.

\* \* \*

### CANYON DE CHELLY NATIONAL MONUMENT

By Robert R. Badlong, Custodian

Dear Mr. Pinkley:

Travel for the month has been very unsatisfactory, the register showing a total of only one hundred and two visitors. Of these, seventy-one went into the canyons by car, three by horse, and twenty-eight drove to the rim of the canyon overlooking White House. Of these twenty-eight who drove to the rim, eighteen descended the trail to the White House.

Water in the canyons kept visitors from them during the early part of the month, but during the middle and latter parts of the month, the canyon floors

## REPORTS FROM THE MEN IN THE FIELD

### CANYON DE CHELLY NATIONAL MONUMENT (CONT'D)

have been in excellent conditions for automobile travel.

Soil erosion work in the canyons was temporarily discontinued during the month, but will shortly be resumed. A meeting of the Indians owning land in the canyons was held on the 21st, the object being to reach an agreement between the Indians and the Soil Erosion Service whereby the flocks of sheep and goats would be moved from the canyons to the rim for a period of three years. This is to protect the planting which will be done in the canyons by this Service. A tentative agreement was reached, with the understanding that provision would be made for watering of the flocks, either by the construction of reservoirs off the monument, or by providing watering places in the canyons, with grazing there prohibited, or both.

Work on the trail opposite White House is progressing in a satisfactory manner. About 2,900 feet of trail has been completed. The lower tunnel is finished, the compressor has been moved from the bottom of the canyon to the rim, and work has commenced on the upper tunnel.

Mr. Henry E. Cutler, Jr., reported for Ranger duty on the ninth and has been accompanying car and horseback parties in the canyons.

Mr. George A. Grant, Chief photographer, National Park Service, spent several days here, securing photographs of the monument. Assistant Superintendent Bob Rose was with us the 18th and 19th.

Mr. John D. Rockefeller, Jr., and son, David, were visitors to the monument during the month. The San Francisco office was well represented by Chief Engineer Frank Kittredge, Asst. Engineer J. B. Hamilton, and Mr. and Mrs. Chuck Ritchey.

Cozy McSparron, of Thunderbird Ranch, has been of inestimable value in the control of visitors to the monument. There are six possible ways of cars entering the canyons, two roads leading into the monument at the rim and the White House trail is now in use by visitors. With insufficient personnel, no headquarters, checking station nor living quarters at the monument, the problem of properly handling visitors is a great one, and Mr. McSparron's help is greatly appreciated.

Weather was mild during most of the month, but now it has turned cold, and we have had ice in several places on the rim of the canyons.

With the approach of cold weather, a decrease in the number of visitors is to be expected. This is not to be regretted, however, for it will give me time in which to accomplish some much-needed work about the monument.

\* \* \*

Robert R. Sudlong, Custodian

## REPORTS FROM THE MEN IN THE FIELD

### GRAN QUIVIRA NATIONAL MONUMENT

By W. H. Smith, Custodian

Dear Mr. Finkley:

As the close of the month approaches, I will try to record some of the activities of our monument. We have registered 328 visitors from nine states, Washington, D. C., and England. These entered the monument in 94 vehicles. This shows a slight decrease in number compared with last month, which I suppose was caused by the heavy rains the last ten days of August. However, taking the month as a whole the weather has been fair and cool.

The work on the road approach here is progressing nicely. The graveling is finished and a general cleanup begun. They will begin on the stock-guard soon and with the completion of that we will have a road that is passable for all modes of travel. This project is adding much to the appearance of the monument and to its accessibility. I am greatly pleased with this road but I fear there isn't going to be any fund left for the construction of trails and we certainly need them.

The University of New Mexico is undertaking some excavations at Quarai Mission near Mountainair, N. M. Mr. Paul Huddleston is in charge of the work there. They are making some very nice finds in the way of burials and fragments of cloth. He has a crew doing restoration work while another group is cleaning out the interior of the mission down to the floor level. Apparently these burials are of a comparatively recent date as they are buried above floor level. The floor in the Quarai Mission is laid in flagstone of red sandstone.

The rains in the latter part of August have helped the country in general. Although they came too late to produce any crops, they have brought on a nice stand of grass and the outlook for wintering stock is much better.

\* \* \* W.H. Smith, Custodian.

### TUJICACORI NATIONAL MONUMENT

By George L. Boundey, Custodian

Dear Mr. Finkley:

Visitors for September numbered 788. Visitors for this month this year exceed those of the same month last year and visitors for 1934 exceed those of 1933 by 2,369, and I am in hope the next year will see us up to normal again.

Toward the middle of the month, the Boss came down and I always notice an increase in visitors and things in general always pick up after a visit from him.

Mr. Attwell's crew of engineers were also down tying in the water system sewerage, etc. They helped us locate some plaza levels that have been rather elusive.

A California concern is putting in several hundred acres of peas, spinach, etc. Several days ago they had a dusting plane down from San Francisco, dusting

## REPORTS FROM THE MEN IN THE FIELD

### TUNGACLOORI NATIONAL MONUMENT (CONT'D)

the new peas. This project has taken a number of men away from the project here at the Mission with the result we have been short-handed most of the month and considerable work is still unfinished. Mr. Collic informs us the state has just set aside \$5,000 in labor for Tungacloori, but as we are about out of funds for purchases other than labor, we may have to discontinue work.

George L. Brundey,  
Custodian.

\* \* \*

### EL MORRO NATIONAL MONUMENT

By Evon Z. Vogt, Custodian

The Fall season has brought some unexpectedly heavy rains which have so flooded the roads that travel was stopped and some bridges pretty well damaged. However, people continue to arrive here at the monument at the rate of about ten a day. Some few camp over night but most of them spend several hours and go on the Ice Cave or to Zuni, the other direction.

During the last of August many fine visitors en route to, or returning from the Indian Ceremonial at Gallup and the Snake Dance at Hopi visited us. Nearly always such people are those of most discernment and interest in our monument, and it was a pleasure to show them around.

The greatest calamity of the month was our missing both Director Cameron and Dr. Bryant, who touched Gallup but did not "pase por aqui" as the old Spanish escrituras say. Had I known they were going to be in Gallup, I certainly would have gone in to see them.

By syphoning off all the water we could from the reservoir, we managed to irrigate the 1,475 squares of green grass sod we transplanted in the filled area in front of the water cave. When the water got so low we could not syphon it, I went to our Atarque ranch 35 miles southwest and brought up a thrasher pump with which we got most of the water out before the last heavy rains.

The 160 feet of galvanized pipe which we borrowed during the drouth from Mr. G. E. Trotter, head of the Zuni Agency, was returned on the 24th. It was through the loan of this pipe that we were able to supply the settlers for 30 miles around the monument with drinking and stock water during the drouth. They were able to get the water at the end of the pipe line and hose thus preventing their driving over the soft sand, which we were protecting..

On the 14th in company with a committee representing western Valencia County, I appeared before the State Highway Commission asking completion of the road from the end of the CCC road on Oso Ridge to El Morro, a distance of twelve miles. The Commission was friendly and favorable, but tied their compliance onto cooperation of the FERA for labor on the road. It is not

## REPORTS FROM THE MEN IN THE FIELD

### EL MORRO NATIONAL MONUMENT (CONT'D)

certain that FERA can work on the road, but I understand the project has been put in and it may be that we will get the worst part at least of this road finished before it snows. Otherwise, this approach road which is also a farm to market road may get impassable altogether as it does many winters.

While at the River, I attended the Grazing Bill conference, regarding the administration of the Taylor Public Domain Bill. This conference was attended by some 300 sheep and cattle men, foresters, landmen, bankers, lawyers and observers. I had the pleasure while there of meeting assistant solicitor of the Interior Department, Rufus Poole, and Asst. Secretary Chapman who conducted the meeting.

The prehistoric hand and foot trail which was mentioned last month in our report proved to lead up to a ledge 105 feet above the ground where there was a water hole about the size of a tub. It took three ladders to reach the ledge and considerable chiseling to make a foot rest on the precipitous sides of the dark crevice. The petroglyph just to the south, around the arm of the mesa, really pointed the way in the water hole as suggested by the Zuni Indian who was here and saw the petroglyphs and the faint notches here and there up the steep crevice to the dark recesses where water would last a long, long time.

One of the discoveries of the month was a petroglyph in a cave not over two feet high and three feet deep. The cave is located 50 feet east of the first carved steps in the stone trail on the east side of the mesa. Part of the figure is under the ground and one must stoop down very low to see the carving at all.

Prowling one day about 50 feet south of the hand and foot trail from the water cave to the top of the mesa, I squeezed my body into a narrow crack to look at the hidden side of the cliff. To my surprise, I noted a very small pecked toe hold, then another, and another higher up. Bringing a ladder, I pushed it up into the crack and climbed up until I could pull myself up on a footing some three feet higher. The toe holds continued on up into the very narrow hole in the rocks. Daylight can be seen through a hole triangular in shape with perhaps 15-inch sides and 18-inch base. The steps continued up this very small hole and out above apparently onto a ledge some 40 feet above the ground.

What could have been the purpose of these little and numerous hand and foot holes leading into a tunnel so small only a small child could enter? My explanation may be faulty, but it seems to me that the trail led to a baby cache. A hide-out for children who were meant to come down with their mothers to the dam for water. In case of sudden emergency, the mother could stuff her babies up into the hold and they could climb up on the ledge where a sheltering rock offered a screen for a dozen or so little Indians. The mother could then



## REPORTS FROM THE MEN IN THE FIELD

### EL MORRO NATIONAL MONUMENT (CONT'D)

make her getaway to the top of the mesa over the water trail and be safe in her fortress home. I intend pushing our little girl Patty up into that hole and let her climb up on the ledge in hopes of finding further Indian signs.

The pinon nuts are about all gone here. There were never enough to feed more than the pinonero, jays, the chipmunks, and squirrels and pack rats. On the Navajo Reservation at places, there is a fair crop while the Zunis are also gathering some off of their land.

The Navajos are preparing for some big Ye-Bit-Chi sings now that frost has made this possible. They will have to dance and sing a lot to forget the very disastrous condition of their range.

Fresh wild cat tracks and a baby cat press into the mud around the monument and coyotes with a bunch of puppies yelp at the noon here within our fenced grounds. The humming birds have left now that the bee wood has gone to seed and many flocks of duck pass over us to the south not following the course of the Pesh Na Tai (iron flies or airplanes) which fly east and west over us every day.

Our travel figures for the year were conservatively estimated at 2,800 which is a gain of 800 over last year. The percentage of contacts made by Ranger Peterson and myself this year was very much greater than ever before.

Neither of us recalled any complaints at all. We have had many delightful compliments at the wonder of our monument and its neat and inviting condition. This will not be so easy to maintain when travel runs into many thousands in future years. With regards to all Park Service folk.

\* \*

---We were wondering who, or if the babies themselves, cut the toe holds.

\* \* \*

E.E. Vogt, Custodian.

## REPORTS FROM THE MEN IN THE FIELD

### PIPE SPRING NATIONAL MONUMENT

By Leonard Heaton, Acting Custodian

Dear Mr. Pinkley: How the time does fly. It seems as if it were only last week that the August report was sent in and now the September report is to be on its way if it is to get into monthly assembly.

As I am writing, the wind is and has been changing the surface of the earth up here. Commencing Friday the 21st, the wind started from the Southwest and has continued up until now, making the air so full of dust for hours at a time that it is impossible to see 200 yards, and from the hill the desert looked like a sea of red sand always on the move. This is the worst sand storm that we have had for 18 months or more, it being worse because of the dry summer and no grass, weeds or other plants on the flats to stop the wind from picking up the sand and small stones. Also colder weather has come, most all of the trees have begun to show yellow in the leaves, the squirrels and rats have gathered in their supply of pine nuts for the winter, and a lot of birds have passed here going south. It feels like we will have an early Fall.

Our travel this month is as follows:

#### Record No. 1-Visitors

Arizona.....	104
Utah.....	137
California.....	33
Nebraska.....	2
Illinois.....	7
Virginia.....	1
Total.....	284
Last Month.....	251
Increase.....	33

#### Record No. 2

Local travel including cars, trucks, wagons and horsesmen.....	847
Last Month.....	825
Increase.....	22
Total travel, Sept.....	1131
Do Aug.....	1076
Increase.....	55

I think this month will be our high month until next summer as the last few days have not yielded many visitors, yet the local travel is about the same.

Mr. A. E. Cowell and wife spent a few hours here on the 21st, getting figures and measurements to start the road work as soon as approved plans are received from the San Francisco office. The Indians completed the pipe line so that the water was turned into the line on Sept. 4th. Several leaks occurred which were fixed and by Sept. 18th, the pipe was covered and our meadow pond is about dry.

I was told the other day that the Stockmen were working on a project to have Pipe Spring made a shipping point for cattle in the future--that is, this place will be where the cattle will be loaded onto trucks and hauled to the railroad. There is a lot of talk and meetings being held about the Taylor Bill and how it will effect the industry. There are two main groups of people: one group wants the Strip for just Arizona residents and all other stockmen will have to move out regardless of their holdings; and the other group wants to give every man his right to the grazing in proportion to the extent of his holdings.

During the month, I have been quite busy showing people around, getting out the dry woods and doing some work on book binding.

\* \* \*

## REPORTS FROM THE MEN IN THE FIELD

### TONTO NATIONAL MONUMENT

By Charlie R. Steen, Ranger

Dear Mr. Pinkley: I returned 'home' on the afternoon of the sixteenth and a half-hour later the cash customers started to come in--there have been more visitors than I expected, as there are one hundred seven names on the register, forty-one of whom have signed up since my arrival. As far as I can gather not more than a fourth of the visitors went up to the ruins. I have an approximate count of three hundred five for the month.

Two days of rain over the week-end has kept down travel a little. Apache Trail was very slick in spots, I understand. The trail has nothing on the entrance road to the monument, however. This monument would be a paradise for an ornithologist. There are hundreds of Gambel quail--among the more prominent birds are Arizona cardinal, cactus bird, canary, humming bird, oriole, several I don't recognize and two crows that roost in the ruins at night.

This report, I believe, would be incomplete without an account of an incident which occurred last week. Before I made my cooler, I woke one night and heard an animal after my food. I walked inside, scared the animal away and rescued my bacon from the middle of the floor. The next night I thought I had things pretty secure, but some time during the wee amc' hours I heard another commotion inside. That man Steen again ran into the house, but the animal, instead of running out, stayed behind the shelves I have built. I took some newspaper, fired it, and pushed it under the shelves. The odor of burning hair filled the room but my visitor played possum. Grabbing the shelves, I pulled them from the walls, took one look and saw a none too friendly skunk and immediately decided he could have all the bacon he wanted. I went back to bed. Next morning, I considered writing the Carnegie Institute to find out if a medal could be struck for the most considerate skunk in Gila county, if not in the entire Western Hemisphere. Now I lock my house at night.

\* \* \*

### WUPATKI NATIONAL MONUMENT

By Jimmie Brewer, Ranger

Dear Mr. Pinkley: We submit our September report with a great deal of pride. Our effort to stimulate traffic to Wupatki (194 visitors) has been rewarded with a 130% increase over September of 1933.

We can see you raising your eyebrows, so hasten to explain the why and wherefore: First--the road signs we have placed are cutting down the number of potential visitors who would otherwise have been lost. Second--the mimeographed pamphlets you furnished are distributed and are bringing results. Seven cars out of ten have a copy with them when they arrive. Third--the Desert View-Cameron highway is lacking only four miles of being complete. This, of course, makes it possible for Grand Canyon visitors to reach Flagstaff and highway 66 via Wupatki and Sunset Crater. With the distribution of the pamphlets and a little "pep talk" by Ranger Naturalist Disher of the Wayside Museum at Grand Canyon, many of our increased number are thus accounted for.

## REPORTS FROM THE MEN IN THE FIELD

### WUPATKI NATIONAL MONUMENT (CONT'D)

The weather has been mighty fine here and the range looks good. The chamise has long new shoots and I think the pleasant cool weather and the .39 inches of rainfall recorded in August are the contributing factors.

We had the good luck to meet Assistant Superintendent Bob Rose in Flagstaff on the 17th, but in spite of all our persuasion his limited time on this trip didn't allow of a visit to Wupatki. Bob suggested that any information regarding deer and antelope on the monument might be news. Those I have personally observed have been limited to one deer herd of 8 or 9, and several herd of antelope varying in number from 3 to 10. Mr. Wall of the Forest Service gives the following information: Wupatki and the surrounding area averages a couple of deer to the square mile and three antelope. His observation also discloses a migration trail between Wupatki and O'Leary Basin that is used by approximately 200 head.

Today I am sending to Mr. Cliff Arnack, Curator of Biology for the Museum of Northern Arizona, a representative collection of the flora of Wupatki. I am requesting sub-specific identification so that specimens in the field can be identified by the use of the metal tags that Naturalist Dale King advises.

Sallie and I took an "educational holiday" to the Grand Canyon where we were guests of Mr. and Mrs. K. B. Disher. After dinner Sallie and Connie visited Mr. and Mrs. McKee (where Mr. McKee, Park Naturalist, was interested in a small self explanatory exhibit of geologic features of Sunset Crater, to be put on the monument) while I attended Ken's talk on the Canyon. The next morning we stayed on for the Caravan lecture at the Wayside Museum where were fortunate in talking with Louie Shellbach concerning his ideas of museum display for visitors. We were intrigued by the simplicity of Shellbach's "continuous story" contained in this small museum. We wish we could have something similar at Wupatki-- enough general charts to give the layman a background, and facilities for displaying some of the 2,000 artifacts that have been excavated and preserved by the Museum of Northern Arizona from Wupatki. By the way, have you seen Miss Bartlett's re-arrangement of the Wupatki exhibit in the Museum of Northern Arizona? It's swell! A complete little story to date with progressive photos.

Coming back to our visitors--of the 194 total, 143 were registered at Wupatki. This is a marked increase in the number who come as far from the highway as the major site. Of this 143, a personally conducted field trip and incidental lecture was "administered" to 137. Next month we hope to catch 100%.

\* \* \*

## REPORTS FROM THE MEN IN THE FIELD

### WALNUT CANYON NATIONAL MONUMENT

By Paul Beaubien, Ranger

Not much to report this month. Visitors come and go but not as often now as before Labor Day. Only 1,124 registered this month in comparison with 1,910 for August.

The bright spot of the month was Bob Rose's arrival on the 16th. Every other day was about the same as the one before.

Last month I spoke of placing some informative notices along the trails in order to have more time elsewhere. They have had the opposite effect. Being brief, they arouse in many visitors, the desire to know more besides giving them a broader bases for asking questions. Have experimented quite a bit with the wording and with their location and believe that I can make them more effective. Hope to have more to write about next month. Respectfully.

\* \* \*

### WALNUT (SUPPLEMENTAL NO. 1)

On the 25th, the engineering crew, consisting of G. H. Gordon, R. S. Harris and Knox Borden, arrived to assemble data and make plans for future construction on the monument. As the water supply was nearly exhausted, it was necessary to beg the Forest Service to furnish me with water. It is twelve miles from the monument to their supply which has been transported sixty miles from Winslow.

The dwellings are badly in need of repairs, but being without material tools or approved plans, I have been unable to do any of this work. It is now a race between the agents of erosion and pot hunters to see which one will destroy the ruins first.

Nearly all of the roads on the monument are in excellent shape. However, the public has two faults to find, 1st the approach road between Highway 66 and the monument, 2nd there are no road signs between Walnut Canyon and Tuzigoot. The engineers tell me that they will make a study of these conditions and then make their recommendations accordingly.

I was informed yesterday by the Forest Service that our present Ranger quarters are not on the monument. This is not as serious as it might be as one visitor told me he thought the house exhibited signs of falling down twenty-two years ago. Any plans developed in the near future should take into consideration the dire need of living quarters as well as an administration building and museum. It has been embarrassing on several occasions, when visitors asked to see the museum, to tell them that all artifacts are in storage at Flagstaff. My entire collection here consists of a petate and a skull and some corn cobs.

\* \* \*

## REPORTS FROM THE MEN IN THE FIELD

### WHITE SANDS NATIONAL MONUMENT

By Tom Charles, Custodian

Dear Mr. Pinkley: Last week we had a letter from a friend who recently secured a position with the Park Service; she said she was so happy that she pinched herself occasionally to make sure that it was not a dream. I have the same feeling. But just now it seems that the more job I have, the more trouble I have. Time was that it didn't matter whether the lakes at the White Sands turned red or dried up or what became of them. With added responsibility, I have doubled my worries. Visitors seem to think that I am personally responsible for the color of every little puddle at the Sands and they want them red. The more urgent the visitors become, the more anxious I am for the things to turn a flaming crimson. But this year the drouth has shrunk these lakes until they are mere mud holes, and it is humiliating to take a highfalutin' guy from some place "on the Hudson" out for an hour's ride to show him "red lakes" and have to point out a little puddle sailing under the name of lake.

But one little old puddle has saved my reputation. Today the little lake at Herd Springs is a beauty. It carries the blush of a crimson rose. I certainly hope that Bob Rose gets over here in time to see it. I want to be vindicated. I want Bob to decide if this thing is a lake or a puddle--whether I am to display it with pride or hide it under a bushel basket. It is red alright. Bob will not be ashamed of the color if he comes soon.

The White Sands put on an initiation party for two of the National Forest officers this month. Carol Dwyer, Supervisor of the Lincoln National Forest, moved his family to Alamogordo from Thousand Oaks and forty of the U. S. Forest family gave him a party at the Great White Sands. This week A. D. Holohan, Assistant Supervisor, arrived and the first party having been so successful, he also was given an initiation at the White Sands. This party drew sixty of the Official Family. That same night there were thirteen other carloads at the Sands for parties.

Mr. W. R. Leigh and Miss Traphagen of the Traphagen School of Fashion, both of New York City, were guests at the White Sands this week. Mr. Leigh is a well known artist, connected with the American Museum of Natural History. He expressed regret that he was unable to stay and paint a picture of the White Sands, but assured me that he will try to return in the near future and spend considerable time at the monument.

Frances S. Dean, Assistant Editor of the National Park Service Bulletin, writes that she walked on the White Sanded floor of the New Mexico building at Chicago and she expects to walk on the Sands in their natural state on her next visit to the Sunshine State. We hope that her visit may be soon.

Later: Bob Rose has come and gone. He and I went out to that lake or puddle and he said, "Oh, my, well, well!" I have never found out whether his surprise was on account of the size of the thing or the color. However, I have decided to use my influence with the local Chamber of Commerce to have their advertising read, "Red water."

You will be glad to know that Charlie Powell and I have settled our differ-

## REPORTS FROM THE MEN IN THE FIELD

### WHITE SANDS NATIONAL MONUMENT (CONT'D)

ences. Someone must have convinced him that the White Sands had nothing to do with the white haze on the day of his party. He sent us a beautiful picture of his monument this week with the message, "Greetings from Chiricahua to White Sands;" one child to another.

\* \* \*

In reporting on his trip, Bob Rose says that he and Tom Charles actually slipped up on one of those little lakes and found it red. True, it was small, and we believe this time it was blushing a little from embarrassment at its small size instead of through pride.

On this same trip, Tom Charles and family gave a Sunset and Moonrise picnic at the Sands. A hearty welcome meets all Park Service folk visiting the White Sands and the Sunset and Moonlight views of the Sands are scenes long remembered.

\* \* \*

### CASA GRANDE NATIONAL MONUMENT

By Hilding F. Palmer, Custodian

Dear Mr. Pinkley: Casa Grande rings the bell with 1,429 visitors for the month--an increase of 359 over the 1,070 who visited the monument last September. This increase of over 33% is very gratifying. These 1,429 visitors came in 408 automobiles from 37 states, District of Columbia, Mexico, England and The Sudan, Africa. Arizona furnished 855 of these visitors, California was second with 213, Texas third with 52 and Illinois fourth with 38. The total 1,429 visitors were personally contacted on 302 ruins trips and 270 museum trips. In addition to these contacted visitors, there were 146 during the month who used the picnic grounds or some other of the facilities of the monument but who required no personal service, making a total of 1,575 visitors for the month. Other statistics compiled by the personnel regarding visitors, length of stay, etc., will be found in the Supplement.

The number of visitors for the travel year ending September 30th also shows a nice gain for Casa Grande. In 1933, we reported 21,771 contacted visitors; in 1934 we contacted 23,636, an increase of eight per cent. In addition there were 3,369 visitors who entered the monument and used some of its facilities, but did not take advantage of our Educational service.

The weather for the month has been reasonable with a mean maximum of 99°, a mean minimum of 62° and a mean temperature of 80°. The maximum temperature for the month was 111° on the 4th and the minimum was 43° on the 28th and 29th. A

## REPORTS FROM THE MEN IN THE FIELD

### OLSA GRANDE NATIONAL MONUMENT (CONT'D)

showers on the 22nd brought us .2 of an inch of rainfall and much cooler weather. There were 28 clear and 2 cloudy days.

Assistant Forester W. H. Wirt spent a day at the monument in conference with Superintendent Pinkley and in inspecting our buildings for fire hazards. He made several suggestions, which we hope to carry out in the near future if funds become available.

Our very enthusiastic Park Service friend Francis P. Farquhar arrived on the last day of the month and spent a day and a night learning about the interesting features of the monument.

The old quarters on Compound A, which we have been planning for several years to tear down is being remodeled into two apartments to be occupied by Junior Naturalist King and by Park Ranger Caywood as soon as his appointment has received Presidential approval. Lack of quarters to house personnel forces us to use this house year after year, even though it has been condemned by the B.P. & D. because of its location in the prehistoric compound.

Junior Naturalist King completed a fine model of a prehistoric pit house during the month and it is now much easier to explain to visitors the construction of the earliest type of house used by the Hohokam. The model is constructed with one end complete but the other open so that all details and steps of construction are shown. It has been placed on display in the museum with pottery and other artifacts belonging to the same period.

Louis Shellbach, Museum Expert, spent a couple of days at the monument consulting with everyone and giving many valuable suggestions which Naturalist King plans to put into execution as quickly as time and funds permit.

\* \* \*

### ASSOCIATE ENGINEER'S REPORT

By Walter G. Attwell, Assoc. Engineer

Dear Mr. Pinkley: I started the month at Chiricahua, preparing for the Labor Day celebration. These preparations were completed on the third.

The following day, I went to Bendelier to check up on the ECW camp there, returning to Southwestern headquarters on Sunday, the eighth. The following day I drove to Montezuma Castle to inspect the construction of a sewer system, a garage, the revetment work, road work and ruins trail. This is Public Works with additional FERA men under Engineer Brown. The garage, revetment and sewer system have been completed this month. The ruins trail is 75% complete and the road work about 50%.



## REPORTS FROM THE MEN IN THE FIELD

### ASSOCIATE ENGINEER'S REPORT (CONT'D)

On the 15th I drove to prison camp No. 10, near Tucson and completed the negotiations for the transfer of a Chevrolet pick-up to the Park Service. I towed the pick-up back to Coolidge with a one-man tow-bar.

I left Southwestern headquarters again on the 17th for a two day visit to Chiricahua where I checked up on the month's work and helped inventory all tools and equipment. On the following day, I took Engineer Gordon and his crew to Tumacacori where they assembled the field data to prepare maps and plans for a water system, repair to ruins, boundary fence, wall construction and the refilling of the old adobe pit. The entrance gate and adobe walls now under construction at Tumacacori are about 97% complete. The crew is PERL and the foreman is P.W.

On the 25th I accompanied Engineer Gordon and his crew to Walnut Canyon, Sunset Crater and Tuzigoot where we laid out future projects. Mr. Gordon is now preparing plans for topographic maps, roads, trails, water and boundaries at these places.

\* \* \*

### ASSISTANT ENGINEER'S REPORT

By J. B. Hamilton, Ass't. Engineer

Weather and Travel: Fine fall weather all month, except for two rains, neither of which amount to much. Turning foliage and snappy nights warn that winter is coming. From Mesa Verde National Park as headquarters, I made one trip to Gallup, two to Canyon de Chelly National Monument and one to Aztec and Chaco Canyon National Monuments. Chains were required on part of last de Chelly trip.

Aztec Ruins National Monument: An additional grant of \$2,500 for ruins restoration and repair has permitted restoration of the Great Kiva to go ahead, though slowly, as the money was not made available until near the last of the month. The peeled poplar cross beams and split cedar roofing material were placed on the main supporting beams and the whole covered with mud. Mr. Earl Morris has spent most of his time this month personally directing and working on this job.

Chaco Canyon National Monument: I spent a day with Custodian T. C. Miller, going over some of the construction problems most urgent at Chaco Canyon. August rains caused much damage to ruins. Money for ruins repair is most urgently needed. The monument should be fenced and roads and erosion control works built; all of which I have reported recently.

Canyon de Chelly: Trail work only is being done this month as erosion control work was stopped, pending the working out of an agreement between the Canyon Indians and the Erosion Control Service. While not finally determined as yet, it appears that the Indians will keep stock out of the canyon for a period of three years; in return the Erosion Service will complete the fencing and revetments for stream control, build three watering places on high country for use of stock during dry season, and will plant trees and otherwise improve the canyons.

## S U P P L E M E N T

Dear Chief:

Some time ago I asked our good friend Frederick K. Vreeland to write three or four pages giving us his ideas of the operation of the National Parks and Monuments. He has responded with the following, which we quote verbatim:

THE BASIC PURPOSE OF THE NATIONAL PARKS AND MONUMENTS IS TO PRESERVE FOR ALL TIME THE TREASURES WHICH THEY CONTAIN. Any Exploitation, Development or Use that is inconsistent with this principle is not and cannot be justified.  
(A National Park Axiom).

"Once you build a ROAD

You start a chain of circumstances

That no man can stop.

B follows A

C follows B

D follows C."

(The Executive of the Concession,  
Yosemite National Park).

"THE BEST WAY TO PRESERVE NATURE IS TO LET IT ALONE".

(Superintendent Rogers, Rocky Mountain  
National Park).

During the past eleven months of field observation, following 25 years of active work in the interest of the National Park System, it has been impossible to escape the conclusion that these basic principles have sometimes been overlooked in the zeal for the conduct of the Show Business, and the thoroughly human desire of men to make their mark by building something or destroying something.

Some men scribble their names on a wall.

Others dig an ancient dwelling to pieces to find out what is inside.

Others build a Motor Road into the very Holy of Holies of Nature.

All are activated by the same basic impulse.

This impulse is deeply rooted in human nature, but it needs to be held in leash in our National Parks and Monuments.

-----  
We are reminded of an excellent editorial in the October issue of "Footways", in which the policy promulgated by Franklin K. Lane is quoted: "The policy to which the service will adhere is based on three broad principles: First, that the national parks must be maintained in absolutely unimpaired form for the use of future generations as well as those of our time; second, that they are set apart for the use, observation, health and pleasure of the people, and third, that the national interest must dictate all decisions affecting public or private enterprise in the parks."

# CASA GRANDE JULY TRIP CHART 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9

1.																			
2.																			
3.																			
4.																			
5.																			
6.																			
7.																			
8.																			
9.																			
10.																			
11.																			
12.																			
13.																			
14.																			
15.																			
16.																			
17.																			
18.																			
19.																			
20.																			
21.																			
22.																			
23.																			
24.																			
25.																			
26.																			
27.																			
28.																			
29.																			
30.																			
31.																			

7 8 9 10 11 12 13 14 15 16 17 18 19

SOUTHWESTERN CONSTITUTION

## CASA GRANDE SEPTEMBER TRIP CHART

7	8	9	10	11	12	1	2	3	4	5	6	7	8	9
---	---	---	----	----	----	---	---	---	---	---	---	---	---	---

This image shows a full page of blank graph paper. The grid consists of small squares formed by thin black lines. There are approximately 20 columns and 25 rows of squares. A thicker vertical line runs down the left side, creating a margin. A thicker horizontal line runs across the top, creating a header space. The rest of the page is filled with the standard grid pattern.

# JULY TIME CLOCK RECORD

\*--Ruins-----Museum--\*

Day of week	Date	Parties	Persons	Parties	Av. stay	Total stay	% of stay	Parties	Av. stay	Total stay	% of stay	Total stay	Av. total stay
Sun.	1	14	78	14	31	435		13	19	247		682	48
Mon.	2	4	14	4	24	96		13	19	247		682	48
Tues.	3	7	23	7	24	121		6	15	91		262	37
Wed.	4	15	107	15	37	559		14	24	339		898	59
Thur.	5	8	34	8	32	262		8	22	176		438	65
Fri.	6	8	24	8	39	318		7	19	139		457	57
Sat.	7	8	24	8	29	235		8	26	213		448	56
Sun.	8	11	47	11	34	378		8	26	212		590	53
Mon.	9	11	34	10	31	311		10	17	171		482	44
Tues.	10	8	37	8	33	265		5	27	136		401	50
Wed.	11	3	9	3	21	62		3	23	68		130	43
Thur.	12	10	30	9	29	269		10	20	200		469	47
Fri.	13	3	11	3	21	62		2	18	36		98	33
Sat.	14	7	16	6	28	169		5	21	104		273	39
Sun.	15	15	61	14	37	519		14	25	355		874	58
1st month		132	549	128	32	4111	61.57	117	21	2567	38.43	6678	50
Mon.	16	6	21	6	37	222		6	35	214		438	73
Tues.	17	9	41	8	35	286		8	37	301		587	66
Wed.	18	4	17	4	36	146		3	20	59		205	51
Thur.	19	8	43	8	43	342		7	33	229		571	71
Fri.	20	9	32	8	36	285		9	22	202		487	54
Sat.	21	7	24	7	33	234		6	25	153		387	55
Sun.	22	15	79	15	39	590		13	33	431		1021	68
Mon.	23	8	25	8	27	221		6	25	149		370	41
Tue.	24	10	37	10	30	306		10	22	224		530	53
Wed.	25	6	17	6	34	208		5	33	166		374	62
Thur.	26	6	26	6	45	268		6	35	208		476	79
Fri.	27	9	34	9	27	245		7	21	147		392	43
Sat.	28	6	21	6	34	206		5	28	140		346	57
Sun.	29	12	67	12	35	426		9	37	339		765	64
Mon.	30	4	20	4	46	184		4	25	101		285	71
Tue.	31	2	4	2	30	61		2	24	49		110	55
2nd Month		145	513	119	35	4232	57.62	106	29	3112	42.37	7344	50
MONTH		277	1062	247	33	8343	59.49	223	28	5679	40.50	14022	50

# AUGUST TIME CLOCK RECORD

Day of week	Date	Parties	RUINS				MUSEUM				Total stay	Aver. total stay	
			Persons	Parties	Aver. stay	Total stay	% of stay	Parties	Aver. stay	Total stay			% of stay
Wed.	1	9	26	9	31	283		7	27	186		469	52
Thu.	2	5	17	5	44	220		4	42	171		391	78
Fri.	3	10	33	10	32	327		9	20	182		509	51
Sat.	4	11	44	11	27	301		10	22	219		520	47
Sun.	5	16	95	15	32	481		14	20	280		761	47
Mon.	6	13	62	13	39	505		12	37	443		948	73
Tue.	7	9	37	9	40	358		8	33	268		626	70
Wed.	8	10	31	10	38	385		9	32	292		677	68
Thu.	9	7	21	7	30	213		4	30	121		334	48
Fri.	10	9	33	9	36	312		7	22	155		467	52
Sat.	11	7	28	7	38	265		6	26	156		421	60
Sun.	12	13	60	12	36	436		13	30	387		825	63
Mon.	13	12	58	12	42	512		12	30	364		876	73
Tue.	14	9	31	9	40	354		8	20	156		510	57
Wed.	15	9	56	9	26	251		9	22	199		450	50
1st Month	149		625	147	35	5205	59.25	132	27	3579	40.74	8784	59
Thu.	16	7	17	7	30	210		7	34	238		448	64
Fri.	17	7	17	7	37	263		7	24	170		433	62
Sat.	18	10	43	10	36	369		10	21	217		586	58
Sun.	19	17	76	17	33	566		17	22	361		927	54
Mon.	20	12	47	12	34	411		12	26	294		705	59
Tue.	21	15	68	15	33	494		15	25	358		852	40
Wed.	22	11	31	11	33	400		11	21	194		594	54
Thu.	23	11	34	11	34	412		11	21	254		666	60
Fri.	24	8	29	8	40	321		8	29	233		554	69
Sat.	25	10	36	10	30	306		10	20	183		489	48
Sun.	26	14	111	14	37	529		14	24	337		866	61
Mon.	27	8	36	8	26	208		8	19	156		364	45
Tue.	28	7	30	7	28	198		7	20	143		341	48
Wed.	29	6	31	6	32	197		6	29	172		369	61
Thu.	30	12	61	12	34	406		12	21	209		615	52
Fri.	31	10	36	10	32	320		10	25	261		581	58
2nd Month	165		703	165	34	5610	59.74	165	23	3780	40.25	9390	57
MONTH	314		1328	312	34	10815	59.50	297	24	7359	40.49	18174	57
JULY	277		1062	247	35	8345	59.49	223	25	5679	40.50	14022	50
July-Aug	591		2390	559	34	19158	59.80	520	25	13038	40.49	32196	54

# SEPTEMBER TIME CLOCK RECORD

Day of week	Date	Parties	Persons	RULES				MUSEUM				Total stay	Aver. total stay
				Parties	Aver. stay	Total stay	% of stay	Parties	Aver. stay	Total stay	% of stay		
Sat.	1	15	56	15	21	314		25	21	301		615	41
Sun.	2	18	126	18	26	469		18	26	443		912	51
Mon.	3	18	108	18	21	304		18	17	335		719	39
Tue.	4	8	25	8	19	136		8	15	105		241	30
Wed.	5	10	31	10	26	239		10	36	287		526	52
Thu.	6	7	28	7	31	219		6	21	127		346	50
Fri.	7	11	28	11	37	406		7	25	176		582	53
Sat.	8	12	38	12	25	302		9	22	204		506	42
Sun.	9	17	90	17	33	564		13	27	355		919	54
Mon.	10	8	35	8	32	260		6	25	153		413	51
Tue.	11	7	28	7	32	225		6	21	128		353	50
Wed.	12	10	24	10	27	278		8	27	219		497	49
Thu.	13	11	33	11	27	307		10	24	243		550	50
Fri.	14	9	28	9	24	219		9	20	187		406	45
Sat.	15	7	25	6	33	203		7	25	177		380	54
1 Month		168	703	168	27	4525	56.81	144	23	3440	43.28	7965	47
Sun.	16	15	57	15	38	485		15	23	354		839	55
Mon.	17	6	14	6	18	112		6	26	160		272	45
Tue.	18	9	17	9	28	255		7	25	175		430	47
Wed.	19	8	23	8	30	243		8	25	203		446	55
Thu.	20	6	15	6	18	108		5	14	69		177	29
Fri.	21	5	10	5	27	139		5	19	96		235	47
Sat.	22	8	31	8	31	250		8	20	165		415	51
Sun.	23	13	75	13	28	366		13	22	297		663	51
Mon.	24	10	44	10	36	362		9	19	175		537	53
Tue.	25	8	21	8	30	247		6	21	130		377	47
Wed.	26	6	21	6	31	191		5	31	157		348	58
Thu.	27	6	27	6	47	280		5	45	224		504	84
Fri.	28	10	41	10	35	355		10	29	297		652	65
Sat.	29	11	62	11	35	391		10	26	258		649	59
Sun.	30	14	128	14	38	540		13	26	346		886	63
1 Month		135	586	135	31	4324	58.19	125	24	3106	41.80	7430	55
Month		303	1289	298	29	8849	57.47	269	24	6546	42.52	15395	51
August		314	1328	312	32	10815	59.50	297	24	7359	40.49	18174	57
July		277	1062	247	33	8343	59.49	223	25	5679	40.50	14022	50
3 Months		894	3679	857	32	28007	58.84	789	24	19584	41.15	47591	53



### DISCUSSION OF CASA GRANDE TRIP RECORDS

The rather complicated six pages which precede this brief and incomplete analysis sum up three months of accurate check by a time clock on guided trips at Casa Grande National Monument.

Before dealing with some of the interesting facts thus disclosed, it might be worth while to point out that these figures include only GUIDED TRIPS. Thus, the average total stay per party at the end of three months is found to be 32 minutes--32 in the ruins and 24 in the museum. Don't forget that these are guided minutes--many parties spend half a day walking around to the other compounds on the Monument; many picnickers stay at the monument campground the greater portion of the day or evening. Naturally, their time is not included.

#### TRIP CHARTS

Now for the three charts which show the duration of each party during the months of July, August, and September.

JULY. a. It is evident that one ranger had to come on duty at 8 a.m., for 10 parties during the month arrived before 8:30. It really was not necessary for the second ranger to come on duty before 9 a.m., because the first man could have handled the visitors except in one case.

b. Lunch hours were almost hopelessly complicated, for on 6 days more than one man was needed between 11:30 and 12:30. On five days we needed two men; on 3 days, three men, and on two days, four men. With a two-man staff, how can we take care of visitors these nine days?

c. Closing time apparently was about 8:30 p.m. Had we closed at 8 p.m. we would have cut short four parties. Had we closed at 7 p.m. we would have turned away six parties, and cut short 11 others. If we had closed our gates at 6 p.m., we would have refused service to 20 parties, and on 10 days we would have worked until 8:30 or past taking care of visitors already inside the gates.

d. Eleven times during the month three men were guiding at one time. Four men were necessary four times.

AUGUST. a. One guide coming on duty at 8 a.m. and the other at 9 a.m. would have been satisfactory in August also. Only three parties would have had a considerable wait.

b. Lunch hours were hard to arrange, for on 11 days two men were needed between 11:30 and 12:30, and on two days three men were needed.

c. Closing in the evening an hour earlier was possible--7:30 would have missed only one party, and shortened two more. Had we closed the gates at 6 p.m., we would have refused entrance to 15 parties. Even

then, on 13 days we would have had to work until 6:30 or longer to take care of the parties already started on trips. On four days we would have had to work almost until 7 p.m.

Twenty two times during the month three guides were needed. Four guides were required three times.

SEPTEMBER. a. Again we see that the two guides could have come on duty at 8 a.m. and 9 a.m. respectively. Only two parties would have had to wait, and then only a short time each.

b. Lunch hours again were a difficult "one man" problem. On 11 days we needed two men; on 3 days we needed three men; and on one day we needed four men between 11:30 and 12:30.

c. Quitting at 7 p.m. or even 6:30 p.m. would have been quite possible in September. Had we closed our gates at 6 p.m., we would have turned away 8 parties. We would have worked on 11 days until about 6:30.

d. Three guides were needed on 20 occasions. Four guides were needed on four occasions.

#### CONCLUSIONS FOR ABOVE TRIP CHARTS:

a. As far as guiding visitors is concerned, it is perfectly satisfactory to start one man at 8 a.m. and the other at 9 a.m.

b. Lunch hour is a problem. Visitors are relatively numerous, and unless we continue the practice of calling in the whole personnel of the Headquarters Staff to handle them, we shall have to work out a new system.

One way to work it would have the guides take consecutive half hour lunch hours, but this works a hardship not only upon the men but upon their families.

If we try to cut down our trips by holding them at scheduled times, at 12 and at 1 p.m., for instance, then we are faced with the problem of visitors who refuse to wait. At the present time there is no lobby or comfortable place where visitors can find interest during such a wait.

It is impossible for one man to handle the visitors with the aid of a sign saying "Join the party now in the ruins." If this scheme were adopted, visitors could join the ruins trip at any time, and would receive at the best a very garbled story. It is possible to join late comers to a ruins trip during the first 10 minutes, but after that the

story has progressed so far that the late comers miss too much important background. Moreover, they constantly interrupt the guide with questions which already have been explained or answered and which are irritating repetition to the rest of the party--although the guide is trying as hard as he can to answer those questions in a new way.

c. The charts prove what we already knew--that the summer quitting hour is late, but that approaching winter solves the problem. Increasingly early nightfall cuts our working day. But when next summer rolls around we will face the same dilemma. If we close the gates at 6 p.m. in the summer time we are going to turn away about 15 to 20 parties a month, and will have to work until 6:30 or 7 p.m. to take care of the ones already inside.

d. During the three months period we needed three guides on 53 occasions. On all other occasions we needed four guides. The facts are evident--we must cut our service to conform to our two-man staff, or must have more personnel. As shown in a preceding paragraph, we cannot meet the situation by joining late comers to trips already started--that is, only in a small number of cases. Last month's analysis (must) showed that trips every half hour were impractical. It may be that trips every hour will be the solution. Yet we are situated close to the highway and draw a great many visitors who are in a hurry--they have a set destination, and can spend little time. Until we have a waiting place which will keep them interested, we shall lose quite a number of visitors unless we take them as they come. But this fact bears repetition--we are giving too much service, or else we need more personnel.

#### STATISTICAL RECORD

First of all, let us examine the three month's total at the bottom of page 147--it shows some rather astonishing things. We produced 47,491 guided minutes....more than 790 hours....more than 99 eight hour days. Since there were only 93 days in the three months, you can imagine the rather stupendous performance of mythical leather-lunged guide, talking solidly for eight hours a day, seven days a week, for three months, and then falling by seven straight days of talking to handle all the visitors. Even had the parties followed each other successfully, it is physically impossible to perform such a feat. Then when you consider that it is a two-man monument one of the guides is also the Custodian, and must handle the administration detail, you can see why this is a remarkable record. We are justified in being proud of this service.

The total shows that our average party stayed 53 guided minutes.

The average ruins trip was 32 minutes (or about 59% of the time) and the museum trip 34 minutes (about 41% of the time). The reason that 32 plus 34 does not equal our average guided stay of 53 minutes, is that there were fewer museum trips than ruins trips. Our visitors came in 894 parties, composed of more than 3,679 persons.

The records of the three months are rather consistent. The low July average of 50 minutes probably was due to the fact that we had a temporary guide not quite up to Park Service standards, and that one new man was broken in. The average jumps to 57 in August with experienced personnel. The September average drops to 51 because of heavy travel the weekend of Labor Day when visitors were handled by two temporary guides while the regular force was detailed to the Chiricahua celebration. But these minor fluctuations do not seriously affect our figures, and we now have an accurate survey of the summer guided visitor problem at Casa Grande. As the museum is improved and other changes are made, it will be interesting to see how they make themselves apparent in future figures.

These figures and charts are to be taken as a typical example of the summer run of visitors at Casa Grande National Monument. The next thing to do is to get a similar typical cross section of the winter traffic when this monument is in its busy season. It will be interesting to see how much change there is and where the changes occur.

Later we expect to gather similar data at our other Monuments and thus gradually build up a picture of what is actually happening. As soon as we find what is happening we will want to find out why the public reacts in certain ways, which may entail some research along other lines.

We think we have reached the maximum time of holding visitors in the ruins at Casa Grande under present conditions. The trip entails little walking and much standing while the guide talks. Physical fatigue comes before mental fatigue; the visitor wants to sit down and rest and the reaction comes when he gets back to the museum where he seems to cut his trip short in order to get back to his car. We are going to experiment with benches at two points on the ruins trip and see if we can lengthen the trip and how much. It will also be interesting to see if we do lengthen the ruins trip, whether it will cut a corresponding time out of the museum trip; in other words, does the visitor have only a certain time to spend, and if you extend it at one end do you cut it short a like amount at the other? We are also considering trying some seats in the museum and see if we can hold the visitor there a little longer. Again we have the difficulty of having to keep them standing so long that physical fatigue comes before they are mentally tired.

Any suggestions on these charts and tables will be mighty welcome.

## THE RECENT INSCRIPTIONS ON EL MORRO.

We have a very timely report from E. Z. Vogt, Custodian of El Morro National Monument in which he sends us 369 inscriptions of American and other names which he has copied from El Morro. The data is important enough that we include it in this Supplement and thus make it a part of the Government records.

Dear Frank:

As a P.S. to my monthly report which I sent to you yesterday, I am inclosing a list of all the names, American and others, which were carved on the cliff after the visit of Lieut. Simpson and R. R. Kern in 1849.

I thought that as a matter of historical record these names should be copied and preserved as they are getting very dim.

We worked on a ladder most of the time as the effort of the carvers seemed to be to put their names higher than the ones before them. In many cases the names could not be read at all, but sometimes by rubbing the moss off with my hand I was able to decipher the letters.

As Ranger Paterson and I were doing this very tedious work we noticed many very dim Spanish inscriptions which dated way back no doubt as they were of the old script. It was impossible to read them as they were placed on the cliff where the rain washes over them and show the signs of weathering very much more than our principal Spanish inscriptions which were placed at carefully selected sites.

E.Z.V.

Beginning immediately above the concrete wall of reservoir dam in Camp Cove and proceeding east to the Ramon Garcia Juldo, 1709 inscription.

\*. Bolmar (or Bolman) '57. J. M. Bell '57. J. Sharpy (or Sharry).  
Legrie. H. B. Cotton. C. L. Lowery. D. Leier. L. Morino.  
Le Gus '5. J. J. Marin, Co. E Rifles. L.H.D. Co. - Rifles.  
G. Holbrook, large letter 4. S. P. Thayer, Kansas City, Mo. 1890 ?  
G. H. Doriot. John M. Gunn June 12, 1884. (He surveyed here with  
Marmon and Pradt. Gunn, who sectionized this region is still living  
at Laguna.) Focher. Lewis (very dim). Lt. D.R. Hubbell, 186 ? 1st  
Inft. Cal. Vol. Gen. E. A. Carr, 1890. C.M. Carr. M.E. De s.  
H.A. Benoist St. Louis. L. Davis. Geo. Zika Aug. 26, 1866, Iowa  
City, Iowa. H.B. Hanson. Wine 9. S. Ostrom 1853. A. Mrae 1853.  
C.B. Sauty. E. Ben Long, Baltimore, Md. R.C. Logan, Ohio 1866.  
F. Schenmer Co E M.A. 1858. J.A. Lucero 1890. Epifanio Anaya.  
F. Engle Jr. New Jersey, 1859. P.B. Byrn. G.H. Whitaker, 1863 Conn.  
P. Gilmer Breckinridge, 1859. Va. Horob 1853. J.G.C. 1890  
F. Doggs Cal. J. G. Mather, Wash.-D.C. 1890/20

Here occurs the Ramon Garcia Juldo inscription, 1709. Between it and the De Vargas, 1692 inscription we find the following:

W.J. Crow. Jonman E 2nd Cav. 1896. F. Schuster. J.P. Stinger, Cin. O. 1863. J.P. Allen, Troop C, 6 U.S. Cav. 1890. Curtis Allison of N.C. B.E. Comins Oct 22 1866. C. Bell. W. Bird 1849. Dan Donahue. W. Wood July 8, 1870. R.H. Crten Capt. 1st Cav 1866. Hale K. Wesley of Ills. 1868. Ed. Cook. R.B. Essay. Ph. Linguist. P.B. Byrn. Jose E. S.M. Taylor Ohio Apr 7, 1859. J.L. Hawks 1851. Th. O' Sullivan 1873. Lieut. McCook, 1857. Peh Williamson, Ohio July 8 1858. C.H. Fry, 1857. S.D. Gray, 1858. John Udell age 63 First Emigrant July 8, 1853. Isaac Holland First Emigrant train from Mo. July 8, 1858. C.C. Clark. S. Lucido Kalicz Polen 1863.

On east of the De Vargas inscription towards the Juan Garcia 1836 Cove:

C. Holbrook, 1 11 1858. Thos. A. Stombs Capt 1st Cav Oct 22 1866. P. McLowell 1864. Joe Ayers 1895. E.L. Medler 1905. Abner Frazier 1864. M. Cherty 1859. Martin 10 Junio 1863. J.J. Quinlin. Leroy W. Riggs, J. Barges. J. McCormick Sept. ?. John Karmode. J.R.M. Aug 19-1864. Pat K.T. Rower. J. McCudden Troop A 6th Cav. Apr. 24, 1890. C.G. Parker Iowa. N.F. Smith, July 4 1864. H. Kingsley. Wickerson '63. T. Kelley. Jo To 1854. P. Rocking 1854. Beale. A.B. Hanna Pa 1863. L.J. Green Pa 1863. Henry Hurst Groesburg ? Holstein Germania D Company. F.L. LaBoeuf N Y Apr 25 1864. John Hambleton. Perkins, 1858. J.M. Poole of La 1858. J.T. Patrick Aug 28 1860. J McCormack, Troy, N Y '71. J. Calron July 30 1858. J.H. Watman 1853. R. T. Barnes July 7 1858. L.J. Rose Iowa July 7, 1858. C. Allen 1890. Jp and Elma Coover Mo July 4, 1876. C.E. Cooley. F. Hayes, Apr 1875 Marlboror N H or N Y. J.H. Hatch Aug 18 1864. J.H. Hatch 1890.

East of the Garcia Cove to the point of the cliff:

E. Willicut. J.E. Clutter. Maj. J.R. Hughes, U.S.A. 1852. W.T. Hartz 3/24/77. Eustis Baker 1876 Bradford Mass. M. Goldman Feb 11-71 Iowa. Fred Hughes 1858 Iowa. W.C. Stiger 1858. Coff - 1857. L.W. Pa 1857. L Ullman U S A 1873. R. Allen Co T? U.S. Cav 1890. W.C. Harper, 1858. W.E. and David Langston from ? N. Bibb 1871. W. Howell U.P.R. 1868. E.D. Palmer. F. Hodges. Old Joe very high up on face of cliff. D.D. Graham---on the Hudson, Dutchess County New York 1832. (This name is that of the first trader and first Indian agent at Zuni. It is well carved but back of a chapparero bush hanging on ledge.) E.M. Volh. C.S. Miller 1866 U.P.R. J.V. Morrison 1896. Frank Lee ? L.C. Smith, 1896.

Names on north face east of Gov. Martinez Inscription towards point of cliff.

E.L. Siman or Simons, Co. F, 18th Cal C. 1868. C.H. Kelsey, 1913. H. Radem. Corp. C. Koey. J. M. Williams, 1913. G.T. Brown (very large letters) 1363? Mullman Oct 5 1876. A. C. Kelly 1876 Cambridge Mass. R.J. Ellis. H. Noel. R. L. Howe June 26 1892 or 82. T. Reidsnider 1867. Chas Stone. R.H. Stone. Geo W. Hagedron Nov 12 1912. Wm Barthol Co F. G.B. Sealy. F(rederick)? J. White, Cambridge Mass 1876.

H.B. Keys. J. Meyer. N.M.M. Polica, July 18, '05. C. Parres.  
 C.J. Montague July 6, 1884. T.J. Gill Co F. W. Zwick May 24.  
 J.G. Morris 1854. H. L. Douge 1849 '51 & '54. C.H. Fry 1358.  
 H. Sloan Ky 1858. J.H. Quinn 1355. H.D. Graham July 28 1858.  
 H. Brand 1358. Cane Carlson. J.L. Tribin 1857. W.A.S. 1854.  
 A. Schmitz July 22 1863. Robt Caldwell Citizena Iowa.  
 J.H. Howard Co 1363. C. Meyer. E.J. Harwood Col. 3rd U.S.C.  
 1867 and 8. T.F. Banning. F. Rerey Altoona Pa. M. Maloney.  
 Franz Huning. E.E. Woodman Creville, Crulter Cr., Cal. G.A.  
 Rakhan Boston Mass. Frank Mercer. J. Williams 1871. Dick  
 Merkle. S. Leovick. M. Forster. J.A. Martin. D. Weaver. J. Little  
 1866. F. Nevins 1889 New York. John . Conway July 2, 1873,  
 Santa Fe, N.M. J. Foster. S.P. Wells Clinton Mich Nov 13 1867 ?.  
 C.F. Green Brighton Ohio U.P. Eng. Corps Nov 13 1876. A. Cagnon,  
 Canada, 1876. G. Brukner St. Louis Mo 1869. Lippel 1866.  
 W.Z. Wilson Roseville Ohio, April 8th 1867. H.M. Preston, April 30,  
 1870. C.A. King, Wisc. John Krauth Den. Colo. Joseph Kerr,  
 May 3 1867. Pablo Castillo, Sbro 11 de 1873. W. Ramplmeir. W.P.  
 Freese 1868. J.D. McClusky. J. Bryet. E. Telle '64. M. Healy.  
 G.W. Coward. C. Woltz Va. H. Easton. James Jordan July 29 1859.  
 Mark C. Evans. Jesus Mazon (who was killed at the Tinaja, his ranch).

On the point of the cliff:

J.G. Davis 1857. E.V. Stahl April 29 1870. C. Williams Co D 1866.  
 F. Maddux 1870. I.O. Maddux 1878. J.H. Meyers Pa. T. Kerr.  
 Joe Taylor. D.C. Ogsbury N.Y. R.A. Wilson 1871. P.H. Howlett,  
 Zuni N.M. 6th 21 st 1903. Harry Howlett, Fairfield Iowa 1908.  
 Narmon Bros.-1881. (Government surveyors whose home was at Laguna).  
 P. March '72. C.A. Bess, 187? G.W. Graves, 1866. S. Lambden, Md 1864.  
 B. Bibb 1884. (This was Ben Bibb who in his last years had a store  
 at Moquino near Sebryetta, N.M.) Chas Watkins. ---? Craven Mo.  
 J.J. Hornbrook or Holbrook, May '97. Jones Buckman 1864. J. Rinor,  
 1883. J.D. Morrison 1896. P.S. Miller, U.P.R. 1868. J.T. Mapes,  
 June 23, 1872. H.C.S. 1859. I.S.C. U.P.R. L. Lorsch 1856.  
 S.H. Taylor Aug- W. Watkins U.P.R. S.L. Gray 1868. W. Shaw, 1868.  
 U.P.R. P.W. Strahan. W.E. Pinegar, Zuni Mt. Ry Survey, Level, 1891.  
 J.E. Cowyers. G. Slattery. Above Slattery is an old cross and  
 below it the words: "Es la Cruz y lo Pinto." Translation: "It is  
 the Cross and I carve it or he carved it." The balance of the  
 escritura is lost. S.A. Smith, 1867. W.C. Stephens June 23  
 1872 Texas. W. Mack 1910 M 3rd Cav. J.R. Summer 1858. L.M. Steen.  
 J.S. Smith July 4 1873 Col. M.J. Bixby. B.S. Ho Aug 29 1858.  
 R.J. Hamilton Aug 23 1858. R.L. Howse. Wm M Crosby 1905.  
 H.B. Stafford N Y 1858. J.C. Day Aug 23 1858. A...right. H. Schuyler,  
 U.P.R. 1868. W.J. Howard Mar 2 1859 (followed by maltese cross).  
 N.A. Keene N.H. Joseph Tasher. Thos A. Walker N.H. H. Weber,  
 July 25, 1873. W.H. Bradley ~~Reynolds~~ N.C. Apr 7, 1876. J.P.  
 Williams. J. Williams Apr 4 1876, Santa Cruz Calif. Horace  
 E. Mann Rockland Mass Apr 8, 1876. S.R. Leonard U P R 1868. J.L. Storms.  
 The following names are on El Morro on north face of cliff west of the  
 Letrado 1632 Inscription:

Sossy. Minty 1889. J.Forster Aug 8 -73, Kansas. Halo Kingsley.  
 W.G.Thomson Dec 23 1861. J.N.King Aug 8 Pike Co Mo. Trumptr.  
 R.M.Clayton 1872. S.L.Underwood May 1872. A.H.Maloy. O.W.Turman,  
 Iowa 1870. Lt. A.Gray 1889. C.Woltz Va. Thos H. Heilley,  
 (carved and painted black), Dec 23 1863. Asa Walmer 1870 Iowa.  
 A.A.Wilt Aug 8 Pa. D.I.Nemitz 1873.

On rock lying on surface ground below the Manuel de Silva  
 Inscription is the name of Wm McKinley Apr 8 1876, also, nearby  
 A.H. 1866.

On the south side of the cliff from the reservoir dam to Petroglyph  
 Point we have the following names:

Ans of 1863 Andubo Julian Trujillo por este sitio en la campana.  
 A.P.Tickoff June 9 1852. R.H.Korn 1851. Dr. S.M.Toedhouse,  
 Aug 30 - 1851. L. Sitgraves U.S.A. Aug 30 1851. T.Sullivan M  
 3rd Cav 1909. Horbin '64. J.G.Parke. Henry Newman Aug 25 '67.  
 J.D.Slight May 5 1853. E.W.Hamby. W.V.Hamby. J.Byrue.

From Petroglyph Point to new stone steps:

W.R.Braden Sgt. Troop M 3rd Cav. 1909. F.J.Cory, T.M. 3rd Cav.  
 Apr 17 1909. J.C.Montgomery Aug 1863 N.Y. L. Bongoy, T.M. 3rd C.  
 L.L.Kroedinger. J.Fellock June 1 1866. S.Smith 1866. J.B. Moore  
 1874. Domingues and 1874 de 1863 Compania efe (F). J.McCord  
 July 30, 1858. Ohio. A.Wetherill, Kansas Colo 1898. (This name  
 appears again on wall of cave at foot of stone stairway. In Mine  
 Pine Cove is a pair of others with a figure 2 and the words "Camp  
 May - 1897" marking the fact that in this Mine Pine Cove was a  
 cavalry camp. C.T.Cirver Canton Ohio M 3rd Cav July '09.  
 B.C.Rogers July 24 1910 T.M. 3rd Cav. J.Klegen M Troop, July  
 25-09.G.H.Smith T.M. 3rd Cav July 25-09. J.G.A. Beedgas 4-09,  
 St. Louis Mo. C.A.Bernius, Leipsic Ohio, July 25-09. T.Hickey  
 1909 July 1910 Troop M 3rd Cav. H.D.Mulligan 7/10. B Ham  
 3rd Cav. S Hubbell 1866. McKee Tm 3 Cav. S.R.Moskovitz ...D.  
 July 24-1910 U.S.A. 3rd Cav Newark N.J. E.A.Donnolly M 3rd Cav  
 1909. R.M.Dover 1865. Capt. J.B.Crouch 1866. Guy H. Smithers.  
 E.N.Perkins 1879.

Names carved in Water Cove above former ground level:

N.H.Hutton. Anthony O'Doherty. B.Grether (Stone chipped off below).  
 J.Bendorf '57. T.Evolatch. L.Hurley 1852. Alcario Gallegos (not  
 in old script). O.A.Armstrong, T.Harlow July 29 1868. U.C.Harding.  
 T.A.Wild. A.J.Doe. Love. W.C.Miller May 7, 1890; Simon Garcia  
 Wm Krug 1858. C.W.Noel 1864. Halliday, Weigs Co, Ohio May 1863.  
 W.C.Jackson. J.P.Baker Buffalo N.Y. Maj. Ryarl. John R. Hurd  
 No.1 Cond. U.S.O.W. Portsmouth Ohio 1859. J.L.Lincoln Newark Ohio.  
 W.A.Costa. Thos Doherty. Dennis. V.S.C. 1872. C.G.Sawtelle  
 1894. J.deB. 1880 (in a small square or frame.) Jack C. May 1868.  
 L.K.McGaffey 1908. M.R.Skanez '68. Hyram Dyer. Maj. Iman.



W.G.Marmion 1861. J.H.Mouin (not plain) Pontiac or Beoria Ill.  
P.Turner. W.R.Havacan Aug 23 1853 or 58. M.Hadley 1858. F.H.Upham  
1st Cav. 1870. S.Weaver Aug 30 1851. Andras Ruhlman, August/ Kreht  
July 8, 1854. L.L.Jannell Co. 2 2nd Art June 9, 1852.  
J. Dillin B.C. W.B.How. J.B.Ayer. S.T.Grant 1875. T.T.Noora Mo  
'75. P.T.Homp. P.M.Kehoe 1872. Pablo Jaramillo 1892.  
R.W.Tahon 1849. J.Lay. P.Snyder. Betol 1853 Co. B 3rd Inf.  
J.D.O'Connor. Chas Hole 6. C.Deus. J.B.Calldrag S. 52  
W.L.Hilldrett Man. M.Hamilton.

Names on left, or south wall of water cove above water line:

H.Richards 1872. H.Hampton. Wm.H.Cassfield 2nd Lieut. U.S....  
Fort Wingate 1919. A.V.d.V. (Vanderwagen no doubt), Zuni 1898.  
E.Hofm 1901. Mr. and Mrs. Amos Tiejn. Hedreth. J.Nichols.  
M.C.Jones. F.Wade. David G. Robbins. F. McKinley U.S.G.L.O.  
5/23/1903 D.C. Frank Salazar. Alejandro Salazar. Bony Chavez.

#### BANDELIER MUSEUM PLANS.

The following is a letter from Earl Jackson, Custodian, Bandelier National Monument, to Mr. Rose regarding museum plans for the proposed museum at Bandelier. It is put in at this place to show that we are getting museum minded in the southwestern monuments and to call out any latent ideas from anyone who may read it so we get all the angles of the problem on the table before we come to drawing the actual plans. The letter follows:

Dear Bob:

Following is the revised museum study for Bandelier National Monument. As it stands it is what you and I figured out on your visit here added to Shellbach's ideas.

#### THE FUTURE MUSEUM FOR BANDELIER NATIONAL MONUMENT

The museum should have a lobby, five museum rooms, a laboratory, and a store room. The order in which visitors should see the exhibits would be as follows; lobby, first museum room, ruins trip, second museum room, ethnology room, geology room, and flora and fauna.

##### LOBBY

This is the place for visitor entrance and registration. It should be fixed up comfortably as a place to sit and rest while waiting for guided trips. In addition to being a comfortable lounging place, the lobby should contain books, pamphlets, pictures, and should constitute a psychological key to the museum exhibits later to be seen. It should make the visitors decidedly 'Indian-country' conscious with attractive pictorial representations of Indian scenes, life and environment, without creating necessity for an organized explanation.

The lobby is thus an imaginative setting so essential to appreciation of the coherent scheme which follows in room 1 and the guided trip which follows in turn before room 2 is seen.

Suggestions for Lobby wall display would be as follows:

- a. A large wall painting or tinted photograph of the Indian pueblo at Taos.
- b. A painting of the Ceremonial Cave.
- c. A relief map showing Frijoles and neighboring canyons, with trails and places to see located.
- d. A large picture of the Community House, showing it in part as it was when inhabited.
- e. A large, colorful map of the Southwest, showing the various parks and monuments of archaeological interest as pictorial insets, with principal cities, roads, and distances designated.
- f. A large colored picture of the Upper Falls in Frijoles Canyon, which is a spot of great beauty. This picture would help make visitors conscious of the merit of a walk down one of the Nature Trails.
- g. A large pictorial map of old Santa Fe would not be out of order. On this dates would be shown and brief historical legend would be placed at the bottom. Since the Spanish occupation of the Southwest began before Frijoles Canyon was abandoned by the aborigines, even though the two peoples never contacted, the picture of Santa Fe would harmonize with the general scheme of things.

#### FIRST MUSEUM ROOM.

No artifacts will be shown in this room. Here, rather, will be a complete, integrated, chronological picture and chart scheme of North American archaeology and ethnology, leading toward the end to the specific Rio Grande area, to be shown in the next room, after the guided trips.

In the center of the room might logically be placed a plaster relief model of North America. Charts and sketches could be arranged logically in somewhat the following fashion:

- a. A relief map of North America, showing the northeast tip of Asia and Greenland. All of the probable migration routes of Amerinds would be shown; the Behring Strait Route, the Aleutian Island connection, the possibility of some Cro-Magnon influences having come over through Greenland and Iceland from Northwestern Europe. The southernmost extent of the Ice Sheet should be shown, and legend below the map would indicate probable date of man's first appearance in North America, and would refer to the possibility of Pleistocene Man. Also on this map should be shown possible routes of early travel through this continent which would account for the segregation at an early date of the different types of people, and culture found.

- b. A picture chart of the principal types of North American Indians both historic and prehistoric, should be shown. Legend at the

bottom would give the principal anthropometrical characteristics.

c. A chart of the different house types built by Amerinds, both historic and prehistoric, would be in order. These house types should be separately designated as belonging to farmers, hunters, or shepherd peoples.

d. A chart should be prepared showing how chronologies are worked out; in house type developments, in development of pottery design and technique, and in the study of tree rings. This tree ring explanation could be made interesting by careful sketches, and this must be done. The average person has no more conception of tree rings as they apply to ruins than I have of the growth of adenoids in archaic Martians.

e. A clever picture could be drawn to show what an archaeologist has to do in uncovering a ruin; first showing the ruin, then showing the progressive stages of excavation, with detail of how stratigraphy tells a graphic story.

f. A map of the Southwest, showing prehistoric ruins, or rather prehistoric culture areas, with the Rio Grande drainage distinctively marked, would be well as a finish,

The reason for showing the first museum room before the ruins trip is simply this: a great many visitors are utterly unfamiliar with archaeology or Indian life, and before they can have the fullest appreciation or comprehension of the points seen on the trip they must have some preliminary explanation. That preliminary explanation can be given at some convenient stop near the beginning of the trip, in a stereotyped outline, to a group of visitors who are seeing so many things to distract their attention that they do not remember what the guide is telling them, and constantly the essential groundwork of understanding has to be repeated and repeated to them.

Or, we can give that preliminary talk in the first museum room, before the trip, in a very colorful way. By means of the charts and pictures the attention of visitors will be held, and when they leave the room with the guide they will have a concept which is much clearer than that presented by words alone.

#### SECOND MUSEUM ROOM:

This will be the main actual museum room; it will be the largest room of all, a little larger than the spacious lobby, and considerably larger than the first museum room. Herein will be presented a scheme of Rio Grande archaeology, concentrating on Bandelier National Monument, and here will be shown the artifact material. Only a representative collection should be shown; there is no use of showing duplicates or triplicates, except in small articles, for they are not essential enough to warrant taking up the extra space. This museum is not to be merely an exhaustive collection, with every thing in it we can cram there; the store room is the place for every object not needed to fulfill the general story told by the representative pieces alone.

a. A chart should show all of the principal sites of the Rio Grande area, both historic and prehistoric.

b. A chart showing all of the culture periods of the Southwest,

from Basket Maker I to Pueblo V inclusive, with description of outstanding developments of each shown, and the point at which the Pajaritans tie in with this scheme, should appear here.

c. A relief map of Bandelier National Monument with a panoramic view of Frijoles Canyon, enlarged, and showing the principal ruins groups.

d. Exhibit Case No. 1. This case will show skeletal material, separated and indicated according to age and sex. On a card will be mentioned a few of the sexual differences observable on bones. Above the display should be a picture of a typical Pajaritan man and woman, or family scene, in one of the cliff houses. With the skeletal material it would be nice if we could contrast the skulls of an Apache or Navajo, as illustrative of the nomadic, nomadic type of people who sometimes made life miserable for the Pueblo Indians.

1. In a separate part of Exhibit Case I could well be shown bones of animals and birds found in the ruins, with legend account of the significance they played in the lives of the peoples ---whether sacred or used for food purposes.

2. Contributory to Exhibit case I should be a case in the center of the room, with a flat or trapezoidal top, showing a typical burial, with everything in situ and undisturbed, even showing some of the grave dirt in place.

e. Exhibit Case II. Showing the development of pottery from the first type in the Southwest, down to the latest historic, and showing where Frijoles wares tie into the general scheme. Sketches will have to show something of the technique of manufacture, and the raw materials must be shown. Then will come a representative display of every type of prehistoric Rio Grande ware obtainable, with the Frijoles wares shown from early to late.

f. Exhibit Case III. Stone implements showing the sequence of types made from early to late, and technique, pictorially, in making axes, and possibly grinders and arrowheads. Arrowheads would show in display the different types used for hunting small game, warfare, and the distinction, if found possible by future study here, between types used by nomadic Indians and sedentary tribes (as shown in Sonora, Mex.). Other stone implements could represent types from different regions in a similar manner.

g. Exhibit Case IV. This case will contain the textile specimens such as pieces of cloth, basketry, and matting, and jewelry displays. Raw materials should be shown wherever possible, and sketches should show clearly the types of looms employed, and any loom materials which might come to light should be illustrated as used. Any other objects which cannot seem to belong very definitely to any other category, and objects of bone, can be represented in a section of this case, and their uses stressed wherever possible, in the same manner other objects in use have been previously stressed.

A suggestion made by Mr. Shalbach for a display in a flat wall case seems excellent. A great many fragments of objects which would be useless in any other function would serve a definite purpose if placed in a cross-section of different layers of soil, according to

layers of occupation. This would give a good idea of what the archaeologist sees when he is running a trench into a trash mound.

b. In the center of the room, on a flat table, should be a model of the Community House, partially restored, and with it a model of a cliff house and talus house group, as the latter two occur together here. A restoration of the Great Kiva, which lies 150 yards east of the Community House, would go quite well with these models; the roof would be removable, and details of the inside could be pointed out. Points of interest could be numbered, and reference to a legend written near, which in brief would tell the story of the kiva and its significance, could be made.

### THIRD MUSEUM ROOM (ETHNOLOGY)

This room will deal only with the cultures of the living Indians of the region. On the walls should be pictures of the different important Indian pueblos of the section, as for instance: Taos, Acoma, Santa Clara, San Ildefonso, etc. Photographs of the different tribal types of people and dress should be shown.

a. One case in this room should deal entirely with the different types of native Indian foods. There is quite a story to tell about foods, and how the people gather nuts, berries, and obtain certain herbs for food and for medicinal properties. The story of food getting among modern Indians will convey adequately the idea of how the aborigines got theirs.

b. Other cases will contain representative specimens of the arts and crafts which distinguish cultural traits of the different tribes. Pottery will be the chief item, as little weaving is done in this section by true Indians. Jewelry and garment types will make up the rest.

House types are so characteristically similar that one pictorial representation will be sufficient as generally illustrative.

Ceremonial paraphernalia, belonging properly to arts and garmenture, will be interesting if given a significance.

Indian paintings and carvings of today must be compared to those of yesterday, especially with those of Frijoles Canyon. Points of dissimilarity rather than similarity will be strongest, as Pueblo art of today in this region differs greatly from the old.

### FOURTH MUSEUM ROOM (GEOLOGY)

This would be a small room. The geological story of this region is fascinating, and when the ecological and geographical features in the life of the aborigines are brought out in full significance the value of a separate room for such will be quite manifest.

What made this valley habitable?

What climatic change may have caused its abandonment?

These questions bring to mind the problem of what titanic natural forces welded a land fit for human occupation, and how these forces juggled a race of men in an amazing probable sequence of cause and event.

What is almost a philosophic problem can be reduced by geological charts and pictures to a very entertaining and educational presentation.

An ideal center display for this room would be a plaster model showing a cross-section of the geological formations between the Valle Grande, or great crater situated in the Jemez Mountains, 12 miles to the west of here, and the Rio Grande, as shown in the cliff formations of Frijoles Canyon.

Labeled specimens of all the volcanic rocks in this section could be shown, and any sedimentary rocks that might be found.

All types of rock which were used for stone implements should be identified with such articles, or shown with type specimens. One geologic chart on the wall would give the geological story of the Pajarito Plateau and the Jemez Mountains.

#### FIFTH MUSEUM ROOM (FLORA AND FAUNA):

This could be one room about once and a half again as large as the Geology Room, or could be in two long narrow rooms equalling the same area.

Bird and animal life could be shown partly by pictures, partly by stuffed specimens of the smaller creatures; and wild creatures killed accidentally here can be saved and stuffed.

Fauna habitat groups should be shown according to the various life zones, as Upper Sonoran, Transition, Hudsonian, etc. Charts can well amplify specimen displays into a really educational scheme. Each life zone should have a separate case.

Diagrams can make of a commonplace museum room a place of romance and beauty. At least one here for showing both bird and animal life in connection with some plant types should be had. All representative smaller animals should be shown in such a plan and the commonest birds.

The multitude of plant forms can be preserved for display and study by preserved specimens of twigs from larger ones and by complete examples of the smaller ones.

#### STORE ROOM:

This should be a good sized room with both floor and wall cases. Extra museum material would be kept there, arranged according to type and age, and would be available in cases so that students might come in and find an orderly place for study.

## LABORATORY:

The laboratory should be a fairly large room, in which will be done all museum preparation, patching, labeling, etc. Any Service man is aware of the great need of laboratory space in all museums.

\* \* \*

The Bandelier Museum should have recessed wall cases, not over twenty inches in depth, 6'3" to 6' in height, 6' to 8' wide, and should have the use of the recess 6" to 12" above the floor. Recess cases would be needed in the Second Museum Room, the Ethnology Room, the Geology Room, the room for Flora and Fauna, and the Laboratory and Store Rooms.

Indirect lighting is favored for this museum. Direct light in this section is not dependable. There is too much cloudy weather, and in the winter the sun goes down at 4:30 o'clock in the evening. From the standpoint of utility and stage effect, indirect lighting would fix us up. By use of different colored light bulbs, beautiful effects may be realized, at any time of day or night. Neon tubes might be ideal.

A general summing up of the ideas advanced in this museum might say "It's too elaborate. Why such a museum for a National Monument?"

Our answer to this would be easy. Bandelier National Monument is one of the vital key-points to the whole scenic Southwest. The impressions people get here will determine whether a great many forge on to other points. Since for many this is a beginning of the Southwest, it is our duty here to lay down certain educational features which will better enable people to enjoy the rest of the West. Really, this plan is a minimum rather than a maximum answer to necessity.

Earl Jackson, Custodian

\* \* \*

This plan represents a lot of thinking on the part of Earl, Louis Shollbach and Bob Rose. If some beneficent magician were to bestow such a museum on Bandelier tomorrow, we would all be very happy, but undoubtedly, before an actual museum is built, the plan will experience many refinements, additions and improvements.

The point we wish to make is this: It is almost imperative that each Custodian in the Monuments, permanent or temporary, should start pulling over his plans for the development of his monument, particularly in regards to museums. He should first determine what proportion of his museum should be devoted to Archaeology, History, Geology, Biology, Botany, etc. He should then start to plan the number of rooms, the arrangement, and the actual exhibits to be placed in each. He should make a survey of his present collection, determine which pieces will be suitable for the final museum, make a list of needed specimens. Perhaps, even a little trading and accumulating can be done right now. In other words, when things do break, we will know exactly what we want and how we want it.

## THE STORY OF BANDELLER NATIONAL MONUMENT.

Bandelier National Monument is one of a group of 67 National Monuments administered by the National Park Service, under the direction of the Department of the Interior. A National Monument is an area set aside by a Presidential proclamation because of outstanding scientific, historic or prehistoric value, as distinguished from a National Park, which is reserved by act of Congress to protect some area of outstanding scenic beauty. Bandelier has somewhat of the merits of both, for in addition to the great numbers of ruins contained in the reserve---between 2,000 and 4,000 (estimated) in a 26,000-acre area---it has great beauty of forest and canyon.

This reserve was set aside by President Wilson on February 11, 1916, and until February 25, 1932, was administered by the Forest Service. Since that time the Park Service has been in charge, and provides a Custodian at all times, whose function is to greet visitors and interpret for them the story which Nature and man have laid down in the interesting areas.

The monument is named in honor of Adolph F. Bandelier, the distinguished Swiss ethnologist and writer, who was the first man to carry on an extensive survey of prehistoric sites in this region, and who first studied the ethnology and mythology of the living Indian groups around the present Santa Fe. From 1880 to 1886 he carried on his studies, living in one of the cave kivas of Frijoles Canyon, and at the end of his stay wrote that famous ethno-historical novel, "The Delight Makers," which has as its setting Frijoles Canyon and the Tüenyi ruins.

### Canyon is Deep Gash

Frijoles Canyon is a deep gash 17 miles in length, varying from 300 feet to 1,000 feet in depth, running from the east slope of the Jemez Mountains to the Rio Grande River, entering in White Rock Canyon. It cuts through a great crescent-shaped volcanic plain which spreads out south and east of the mountains, dropping off when the river is reached. This plain is known as the Pajarito Plateau, and was formed by volcanic ash thrown forth by the several extinct craters of the Jemez Range. Overlying the ash in many places are later extrusions or outthrasts of basalt, which stand in the shape of great black stone thumbs.

The famous Black Mesa, which you see to your left as you drive back toward the paved highway leading north of Santa Fe, is a basalt mass well known in the Indian history of this region as a living place for the San Ildefonso Indians in the early period of Spanish occupation of New Mexico.

Long ages made of the Pajarito Plateau and its various abrupt canyons a very beautiful forest area,---a land which was suitable for human occupation. Heavy growths of pine and juniper occupy the higher land, while the canyons, some of which are well watered, have in addition to the pines a great profusion of hardwood growths, shrubbery, vines, and flowers. Deer and turkey abound in the region. Black and brown bear are frequently seen, and the raccoon, one of the most discriminating of furry gentlemen, claims



the canyon as his home.

### Many Ruins

Scattered over the plateau are hundreds of ruins of small groups of stone houses, which were occupied by the primitive farming people over a thousand years ago. Until that time the mesa country seems to have been well watered, but with the gradual drying up of the Southwest, which has been taking place ever since the last Ice Age ended, the rainfall evidently became so slight the aborigines could no longer depend on dry farming to produce their crops of corn, beans, and squash. These people (whom we shall call Pajaritans, for want of a better name) probably became so hard pressed by long periods of dry seasons that they finally decided to abandon the mesa homes, and so from there they drifted into the lower lands, into the well watered canyons, such as Frijoles and Pajarito Canyons, where a year-round water supply made successful irrigation possible. Frijoles must have been first occupied not later than 1250 A.D.

An estimated population of between 2,000 and 2,500 people built their homes in Frijoles Canyon, near the Rito de los Frijoles (Bean Creek), and lived in 15 separate house groups, within a two and a half mile stretch. Thirteen of these groups were built in and against the cliffs, while the other two were on the level ground. Each house cluster is believed to have been the home of a clan, the sum of which clans made up the tribe. A clan is nothing more than a kinship group of families or close relatives, all descended from a traditional maternal ancestor.

Evidently, it was not long after the Pajaritans came into the canyon before the ancestors of the Apaches and Navajos began making themselves disagreeable. There were the fellows who would pay a brief, violent visit to the farmers at night, usually about the time the harvest was in, and make off with all the corn and beans they could carry, after setting fire to the houses and capturing any fair maidens they could get. Such difficulties made it necessary for the peace-loving Pueblo people to build fortified houses.

### Houses Easily Defended

The defense idea is well shown in the construction of Tyuonyi, the great community house built on the floor of the canyon. This structure is in the form of a flattened circle. There is a large open inner court, on the north side of which were situated three kivas. There was only one entrance to the whole building, a narrow passage through the center of the east wall. Entrance to rooms must have been gained by ladders going over the inner walls from the court, and from there by ceiling doorways. This building had 250 rooms on the ground floor, and was two stories in height over all, with a three-story section on the northeast side. Since the same degree of curvature is seen in each room section as in the complete outer wall, it is evident the building was constructed according to a carefully preconceived plan.

All of these facts about Tyuonyi were learned when it was excavated in the summers of 1908 and 1909 by a group of students of the School of American Research, under the direction of Dr. Edgar L. Hewett.

One or two definitions may be of assistance. Pueblo Indians is a name applied to a large group of Southwestern Indians of medium stature, averaging about 5'4" in height, who build permanent houses of mud and stone, or of mud alone, and who live mainly by farming. Several tribes and languages are represented in this large group, but the people are all of a peaceful, domestic nature. A typical pueblo is a village built in open country. Cliff dwellers were one and the same as the Pueblo people, but happened to build their houses in the cliffs or on the cliff slopes.

#### Cliff Dwellings Equal in Age

It is of interest to note that the cliff dwellings of Frijoles Canyon were undoubtedly occupied at the same time as the community house on the valley floor. In some other places in the Southwest it is thought cliff dwellings were occupied later than pueblos, as having been the last places for retreat in case of attack by enemies. Here, however, the community house was the better fort of the two.

The cliff houses consisted of (1) the artificially excavated cave rooms dug out by means of stone implements in the soft volcanic ash, and (2) the rock and mud walled rooms built on the slopes in front of the cliffs. The cave rooms averaged about 7 by 9 feet in size, while the front rooms reached a height of as much as four stories, connecting with the cave rooms.

Each house cluster in the canyon has a kiva. A kiva is a place of prayer, a council chamber for the men, and is a true ceremonial place, about which most of the religious activities of the clan centered. All of the kivas in Frijoles Canyon are circular in form, and either sunken in the level ground or dug back into a cliff.

#### Dated by Tree Ring Study

The houses in Frijoles Canyon were occupied clear into early historic times, or until shortly after 1550 A.D. Tree ring study has found, on examination of ceiling timber fragments found in a large community house, a late date of about 1545. The structure must have been abandoned not many years after that date, as the Spanish chronicles have no mention of them, and it is evident that Coronado and his men, in 1540, never saw the Pajaritans.

Drought probably was the cause for departure from the canyon. A period of dry years could have caused the people to suffer, since their crops would not have matured, and the deer and turkey which populated the mesas would have drifted farther into the mountains. Hence, many of

the Indians would have moved in summer time into the Rio Grande Valley, returning in winter, but finally moving out entirely. Groups would have scattered in several directions, joining up with the tribes of Tewa and Keres Indians, and by the mixture losing their identity as a people. Many of the Indians of this region today are related to the Pajaritans, but none in a direct or pure blood line.

The Pajaritans may have been the first people ever to occupy this region, or at least a restricted group of an early people of similar type had left entirely the other regions of the Southwest or been supplanted by incoming Pueblo Indians of a different type. All other civilizations of the prehistoric southwest which lasted as late as that of the Pajaritans were developed by the type of Pueblo Indians we know today, a short, stocky, broad-headed type, as contrasted with the short, slender, long-headed Pajaritan.

Much of the information contained in these sheets is only theory; there is little about the life of the people who lived in Frijoles Canyon that we can positively say is true or false. But at the present time these theories are the soundest ideas we can offer. Next month, next year, they may be changed.

#### Easily Reached

Regardless of theory, you will find Bandelier National Monument a mighty interesting, enjoyable place. It is only 48 miles from Santa Fe by good roads, 20 miles of which are paved. Until June, 1934, visitors had to walk down into Frijoles Canyon from the rim, but now an excellent road leads onto the floor of the canyon.

A large campground has recently been finished, with fireplaces and water provided. A lodge concession in the canyon provides comfortable cabins and good food at reasonable rates. Trout fishing is allowed in Frijoles Creek, subject to the regulations of the New Mexico Fish and Game Department.

Bandelier National Monument is open to travel the year around. Free ranger guide service is provided every day in the year.

Visitors are always welcome, and are subject to such regulations only as are required for the continued welfare and preservation of an area of great historic interest and charm.

Collection of plant specimens or objects of interest pertaining to the ruins, or dismemberment of ruins, is strictly prohibited.

PLEASE BE VERY CAREFUL WITH FIRE!!!!