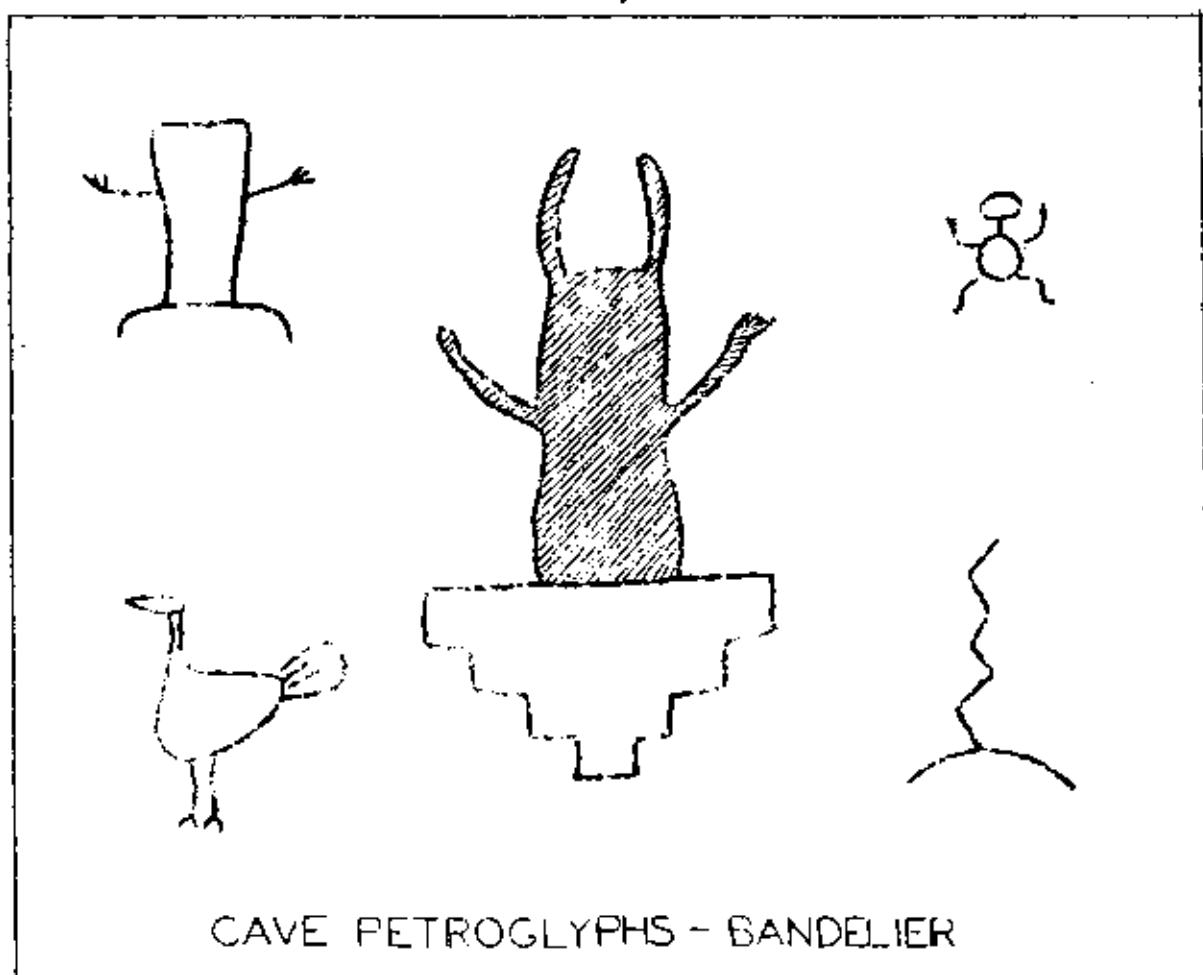


SOUTHWESTERN MONUMENTS

MONTHLY REPORT

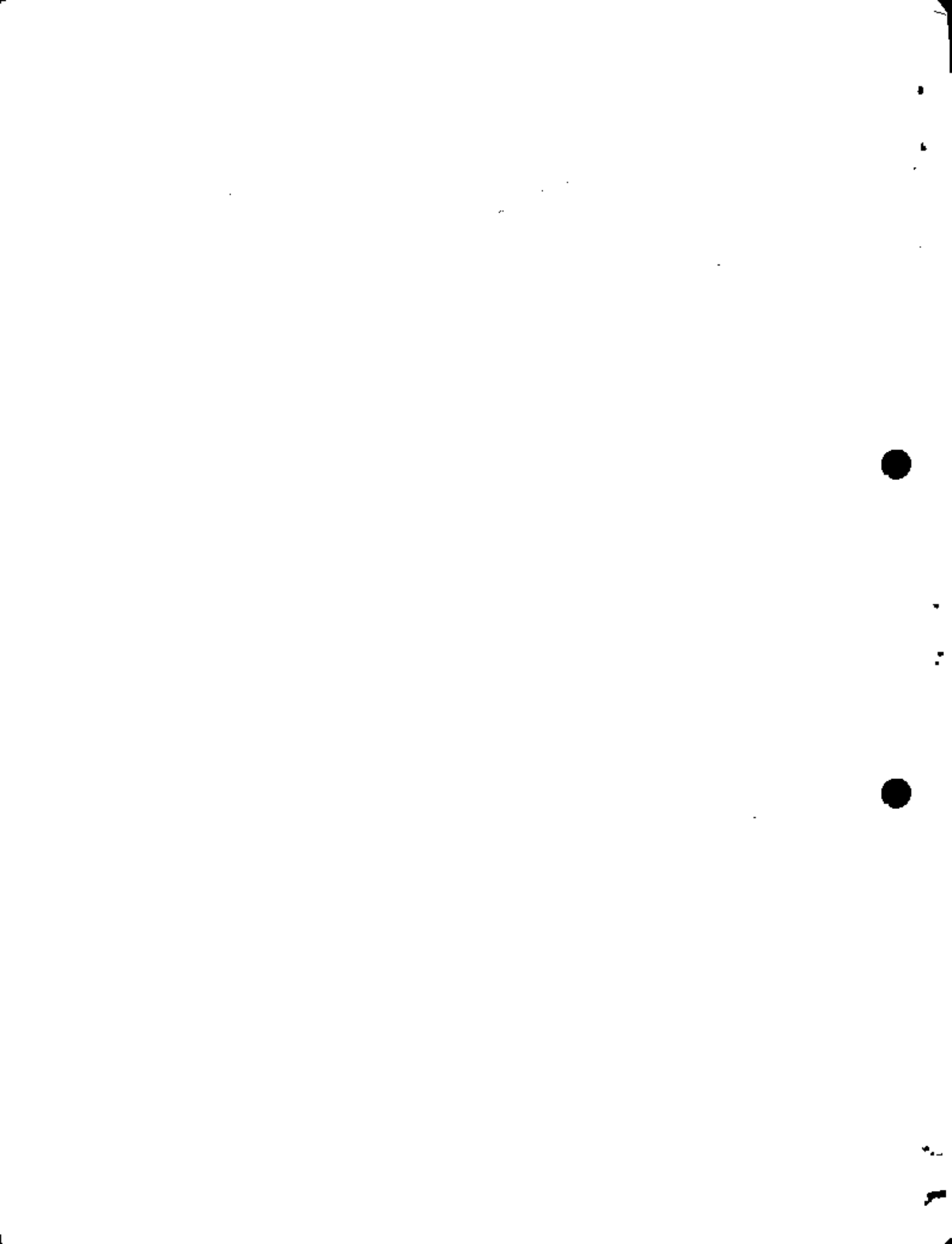
AUGUST, 1934



CAVE PETROGLYPHS - BANDELIER

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

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WASHINGTON, D. C.



SOUTHWESTERN MONUMENTS

REPORT FOR JULY

1934

I N D E X

Introduction-----	50
General-----	50
Field Trips-----	50
Construction-----	51
Personnel-----	52
Park Service Officials-----	52a
Travel-----	52a

Bandelier-----	53	Wupatki-----	70
Cran Quivira-----	57	Chiricahua-----	72
Canyon de Chelly-----	58	Navajo-----	74
Chaco Canyon-----	59	Natural Bridges-----	74
Aztec Ruins-----	63	Walnut Canyon-----	74
Pipe Spring-----	64	Montezuma Castle-----	75
Capulín Mountain-----	65	White Sands-----	77
Tumacacori-----	66	Casa Grande-----	79
El Morro-----	67	Engineer Atwell-----	80

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

Museum Suggestions, by Ranger Charlie R. Steen-----	81
White Sands General Information, by Custodian Tom Charles-----	82
Notes on Ranger Service at Casa Grande, by Junior Naturalist Dale King-----	83
Field Notes and Preparation Work at Navajo, by Ranger Milton Wetherill-----	85
Proposed Exhibits for Bandelier Museum, by Custodian Earl Jackson-----	86
Closing-----	83

LOCATION AND PERSONNEL OF SOUTHWESTERN NATIONAL MONUMENTS

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

1. ARCHES--Moab, Utah. J.J. Turnbow, Custodian.
2. AZTEC RUINS--Aztec, New Mexico. Johnwill Faris, Custodian. Mrs. Gay Rogers, Temporary Ranger.
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. Evon Z. Vogt, Custodian. Alfred Peterson, Temporary Ranger.
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'S CASTLE--Camp Verde, Arizona. Martin L. Jackson, Custodian. Frank L. Fish, Ranger.
14. NATURAL BRIDGES--Blanding, Utah. Zeke Johnson, Custodian.
15. NAVAJO--Kayenta, Arizona. John Wetherill, Custodian. Milton Wetherill, Temporary Ranger.
16. PIPE SPRING--Moccasin, Arizona. Leonard Heaton, Acting Custodian.
17. RAINBOW BRIDGE--Kayenta, Arizona. No custodian.
18. SAGUARO--Tucson, Arizona. No custodian.
19. 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, September 1, 1934.

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

Dear Mr. Director:

We look up from a busy round of work and find it is time to tear the August sheet off the calendar and start on a new month. The following report will be divided into (a) Southwestern Monuments General; (b) Reports from the Men in the Field; and (c) The Supplement.

SOUTHWESTERN MONUMENTS GENERAL

Considerable improvement in range conditions is reported everywhere in the district with the exception of the Gran Quivira locality in New Mexico. There has been sufficient runoff resulting from rains in the Mogollon mountain country to materially raise the level of waters impounded in Roosevelt and Coolidge reservoirs. Weather conditions seem to be acting more normal and once more it seems wise to consult the gods about weather before striking through mountain short cuts in travelling.

Range conditions appear especially fine in the region of Tombstone, Bisbee and Douglass. While there has been much relief from drouth in northern Arizona, it will be some months, after blankets of snow have fallen and melted, before springs, seeps and other underground sources of water are back to normal.

FIELD TRIPS:

On August 9th Assistant Director Dr. H.C. Bryant sent word that his proposed stay of about 10 days in our district would have to be cut to less than half the time previously planned. On the 11th Bob Rose left Headquarters meeting Dr. Bryant about noon on Sunday the 12th. Advance notice was sent to Dr. H. S. Colton, Director of the Museum of Northern Arizona, and meeting Dr. Bryant at the station, plans were immediately made for visiting Sunset Crater, Wupatki and Walnut Canyon national monuments.

An account of this field trip is not complete without mention of the gracious Sunday dinner invitation of Dr. and Mrs. Colton. After the dinner hour and a short visit to the laboratories of the Museum, we

S'WESTERN GENERAL CONT'D:

started on the Sunset-Wupatki loop trip. Enough places of interest about Sunset Crater were visited to show the remarkable character of the scenery and volcanic phenomena in that locality.

Continuing the journey, Wukoki, Wupatki and Citadel ruins were included. Ranger Jimmie Brewer and Mrs. Brewer, "Sally" were just getting settled in their 100 room pueblo home. The fact that Ranger Brewer's term of employment cannot be raised above three months of the year, and that the Monument must lie unprotected for more than six more months of fairly open weather and passable roads, present themselves as most pressing problems at Wupatki.

On the morning of the 13th, Dr. Colton again picked us up in his car and we started for Walnut Canyon. Arriving at the Ranger Station we found Ranger Paul Beaubien who had been on the Monument only a day or two. Walnut possesses pleasing scenery, interesting geological exhibits, and many prehistoric cliff dwellings in the cliff recesses. These excellent features are not far from highway No. 66 and draw many visitors from 9 to 12 months of the year. We arrived there on Monday, usually considered a dull day, and by 10 o'clock in the morning there were 25 or more people on the trails, at the Lookout built by the Forest Service, and elsewhere on the Monument. People were coming and going all of the time. The period of employment of the temporary ranger there for 4 or 5 months leaves a greater period without protection than with protection. Ranger Beaubien has a problem in public contacts which will call for considerable experimenting on his part as to how he can be of most valuable service. Several suggestions along this line were made for him to try out.

At 1:30 P.M. the same day Dr. Bryant resumed his journey east. He later spent some time at Bandelier. We regret that he was unable to include Canyon de Chelly, White Sands, El Morro and other monuments of the district as we hoped he could.

Early in the month word was received that Director Cramer would be at Grand Canyon on August 28 which was later changed to the 27th. The Boss accompanied by Chief Clerk Miller, journeyed to Grand Canyon to meet him there. The Director's stay in the district was short making it impossible for him to visit any of the Southwestern Monuments. From the Grand Canyon he continued to Petrified Forest and thence north and east from Gallup.

CONSTRUCTION:

ECW Camps have been operating at Bandelier and Chiricahua national monuments. At Bandelier CCC work has centered about trails construction and several units of the trail program are finished, or are nearing completion.

S'WESTERN GENERAL CONTD:

The CCC Camp in Chiricahua National Monument has been busy finishing the road through scenic canyons up to Massai Point. Parking areas, trails, and other facilities are being completed in time for the Official Dedication of the new road to be held on Labor Day, September 3rd. This road opens up a famed scenic area known as "Wonderland of Rocks". Senator Ashurst, Congressman Isabella Greenway, Governor Mowbr of Arizona, Chief Engineer Frank A. Kittredge, and other persons of note are to have a part in the Dedication program. The Committee headed by Rex Rice of Douglas is planning on between 6000 and 10,000 people in attendance. The National Park Service and the U.S. Forest Service are cooperating in doing their part toward presenting this Monument for inspection on ~~which~~ will probably be the greatest occasion of its kind held in the State of Arizona.

Last month a list of PWA projects under way was reported. The following work was done during August:

1. PWA Montezuma:- Continuation of revetment, equipment shed, sewer and septic installation, ruins trail and steps to cliff.
2. PWA Aztec: - Continuation Great Kiva restoration, ruins repair, and contract let for new Administration and Museum Building.
3. PWA Tumacacori:- Fence, parking area, gates and other work under way; YERA crew also working.
4. PWA Gran Quivira:-Work continued on entrance road.

YERA crews of from four or five to 10 or 15 men are working on cleanup, adobe making and other work in several of the monuments.

PERSONNEL:

The report for July carried notice of five new appointments. At the beginning of this month, appointments made since the month of May included: 2-custodians; 5-temporary rangers; 1-junior park naturalist, Southwestern Monuments. These appointments are unchanged through August. In addition to these, the following appointments or changes were made during the past month:

1. Ranger Robert R. Budlong of Montezuma Castle was transferred to Canyon de Shelly National Monument as permanent Custodian.
2. Ranger Frank L. Fish of Casa Grande was transferred to Montezuma Castle to fill the vacancy made by the transfer of Ranger Budlong.
3. The position of Ranger, Casa Grande became vacant upon transfer of Ranger Fish to Montezuma Castle. This position has been vacant several weeks and appointment confirmation from the Civil Service register is expected any day.

S'WESTERN GENERAL COMTD:

4. Paul Beaubien was appointed temporary ranger for Walnut Canyon National Monument early in the month. This released Ranger Brewer who had been at Walnut Canyon to go to his regular station at Wupatki.

PARK SERVICE OFFICIALS:

Under the section on Field Trips the visits of Director Cammerer and Assistant Director Bryant were referred to. During the month we also had the pleasure of a visit at Headquarters by Chief Engineer Frank A. Kittredge. His itinerary included several New Mexico and Arizona national monuments. He gave special attention to completion of the new road, trails, parking areas and other facilities in time for the September 3rd dedication at Chiricahua. Mr. Kittredge has been designated as the personal representative of the Secretary of the Interior upon the occasion of this dedication.

Mr. George Grant of the Washington Office, official Photographer for the Service, was a Headquarters visitor during August. At the time of his visit here his itinerary permitted little opportunity to get our much needed photographic work done. Later, however, an extension of time was granted which will permit Mr. Grant to get photographs we have long needed in order to present complete stories of particular monuments in illustrated lectures. We are glad indeed to see Mr. Grant allowed this extra time in our district.

TRAVEL:

An examination of the reports indicates travel is holding up good all over the Southwest. Substantial increases seem to be the rule in nearly all monuments.

CLOSING:

These pages of General will I think show that the month of August has been busy as well as interesting. In the pages that follow, the boys in the field tell in their own way what has happened. We pass into September which shows every indication of being a very busy month for us. The travel pendulum will begin to swing from northern monuments to the south as Autumn approaches. That, together with year round work in our district, makes such a thing as "the dull season" in Southwestern Monuments unknown.

Cordially,

FRANK PINKLEY,
Superintendent.

RHR/

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 August, 1934.

Visitors:- Travel reached a new high mark this month, with an accurate total of 2,125 visitors, coming in 536 cars and two motorcycles, from 33 states, the District of Columbia, and 6 foreign countries. Germany, Austria, Scotland, Cuba, Yucatan, and Canada, were represented. The six highest states in order were: New Mexico, 175; Texas, 100; Oklahoma, 99; Colorado 20; Kansas, 19; California, 18. We had three record-breaking week-days in succession; 88, 103, and 109. Quite a number of people are coming into the country to attend the Gallup Intertribal Ceremonial.

Weather Conditions and Roads: - Rainfall has been good in the higher areas of the state; we have had several good rains in the Canyon, and showers almost every day for two weeks. Dirt roads are becoming badly pitted with ruts at arroyo crossings, but all incoming routes are open.

Fire Report: - The fire season closed with the appearance of rains, and we have had not a single fire call this month. The Forest Service has taken its summer fire lookouts from Puye and St. Peter's Dome, and so any fire which may develop later in the year will be a bit more awkward to spot.

Special Visitors: - Carl Russell, Field Naturalist, was in for two hours on August 9, in company with Leffler Miller, Associate Architect. They made some pertinent recommendations on projected museum arrangements and left with little time for a visit.

Dr. H. C. Bryant, Assistant Director, appeared on August 14, and spent the better part of two days. I greatly enjoyed his visit. On the nature trail trips he made with me, he literally opened up a new world of interest and appreciation of natural beauty, giving in his talk a fascinating aspect of the eternal story of life as seen through the flora and fauna. We can learn so much more from personal contact with such men than with correspondence from away back in Washington.

On August 15, "Chuck" Richey and Mrs. Richey, came in for a two day visit, and I think he was satisfactorily impressed with the progress of developments here.

Walt Attwell and family arrived on August 18, leaving early the 20th. Mr. George Grant, Park Service Photographer, arrived today, and will be with us three or four days. I haven't seen him in about five years, and hope we don't have to wait that long for him again.

BANDELIER, CONT'D:

On July 27, Drake University of Iowa, sent a very interested group of History students. They came in a single bus, and I was interested to learn that their heavy conveyance had no difficulty in making the steep grades between here and the Highway. We lost one large party like that last month because they were afraid to attempt the road.

Mr. Charles E. Lord, a photographer from Santa Fe, visited one afternoon and reminisced interestingly about the late Charles F. Lummis, who was a good friend of his. You will remember that Mr. Lummis was with Adolph Bandelier a good part of the time he stayed in the Canyon making the first archeological study of the region.

Dr. and Mrs. E. B. Grosser, of Bellevue Hospital, New York City, spent three vacation weeks in the Canyon, and have become ardent boosters, promising to return for their next summer's vacation.

Mr. G. T. Cottle, a retired telephone cable manufacturer from Newark, New Jersey, visited in company with his three sisters.

Dr. Jero L. Crook, Jackson, Tennessee, visited with his family, and secured information for a radio talk he is giving on different points of interest in New Mexico.

Major R. A. Osmon and family, from Washington, are camping with us a few days before he leaves for his new post at Fort Bliss.

Improvements: - Most of the C.C.C. activities have been concentrated on trails during the past month, and in that time they have done the most beautiful trail work of all. One new trail just completed, which is a link in our general visitor travel loop, leads through some beautiful pinnacles in front of the Snake House, and has the true cliffdweller style steps well imitated.

The Nature Trail undergoing development up the Canyon now extends about three miles above Ceremonial Cave, into one of the most primitive canyon spots in the Southwest.

The lower trail leading toward the Rio Grande, past the Upper and Lower Falls, is almost completed. This trail will be of great worth when we can institute a regular nature trails trip, and will be especially fascinating from the geological standpoint.

Nature Notes: - Between 600 and 800 Merriam Turkeys are estimated to make Bandelier National Monument their winter home. I am told these birds reach a weight of 25 pounds. Yesterday one of the boys saw a young gobbler about a mile up the Canyon from the Ceremonial Cave; this was

BANDELIER, CONT'D.

surprising, because the turkeys are not expected to come down out of the Jemez Mountains until winter.

A few days ago I saw a Black Bear cub which had been rummaging around the C.C.C. incinerator pit. He was so fat he could hardly waddle across the road.

Two of the boys went fishing up the Canyon one morning. After about thirty minutes they returned to camp, very much out of breath and excited. They broke down and confessed that they had seen a huge Black Bear that stood four feet high on his four feet, and that growled savagely at them, standing defiantly in the middle of the trail. Closer questioning revealed that the bear stood almost three feet tall on his hind feet, and then the boys decided that they had only heard what might have been a bear growl. Well, we did find the tracks of a young cub which had been in the trail. What would life be without imagination?

The raccoons have been visiting Frey's garden. They seem to have a great interest in the growth of the sweet corn, and frequently in their delicately discriminating way, will travel from corn stalk to corn stalk, taking a small sample from each ear. I have not seen one of these clever fellows yet, but have seen their tracks and know that they are around.

The native trout in the Hito de los Frijoles have their troubles. Most of them are rather small, seldom reaching over eight inches in length before being caught. They are the native and the Brook Trout. Insidious little brownish water snakes make a fat living from catching these fish, and I have seen several desperate struggles between snakes about 15 inches long and trout four or five inches long.

In General: - While travel this month has been quite pleasing, I am surprised that we have not had more people to stay over on the camp ground. We have averaged scarcely more than one camping party a night, although all campers seem quite pleased with the place. I think it is simply a question of the place getting better known. Of course, frequent rains have kept a number of visitors from staying over.

I am still hoping to see some excavation done down the Canyon this year. A group of cliff houses which have been protected through the centuries by a landslide occupying the slope in front, offers a particularly inviting prospect for artifact material for the museum.

I am sending a sheet of some of the most interesting petroglyphs to be seen on the cliff walls near ruins in Frijoles Canyon. Some of these suggest meanings to me which seem logical, but some are quite puzzling. Perhaps someone who reads this report will have some ideas on figures a and i. (See next page for petroglyphs and page following that for suggested interpretations).

PETROGLYPHS FROM BANDELIER



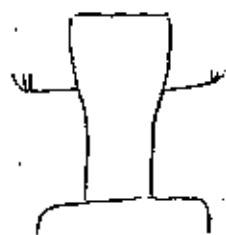
A



B



C



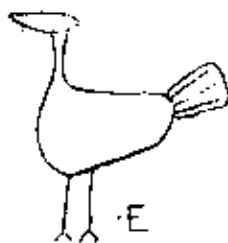
D



F



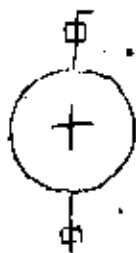
G



E



H



I



J



K

Figures a and i; open to suggested interpretations

Figure b suggests the Plumed Serpent motif found in Mayan and Aztec art.

Figure c might be a crane or a stork. Did they have storks?

Figures d and g are evidently human figures

Figure e is a pretty fair turkey

Figure f looks to me like the Storm God sitting on top of a thunderhead. Such a representation of the old gentleman was probably hoped to maintain his rain-giving benevolence during a coming year. The horns might not seem complimentary in these days, but to the aborigines a horn was not of satanic meaning, but symbolized strength, virility and dominance.

Figure h is possibly the lightning striking a mountain top.

Figure j could represent one of several things. It could symbolize the mountains and clouds, or a storm hanging over a village, or the mythic passageway from the original world of darkness below into this sunlit land.

Figure k is a Sun symbol, according to all the advices received. But why the dot in the center? And what would a series of concentric circles mean?

Here's to another month. Cordially, Earl Jackson.

Gran Quivira National Monument:

By W. H. Smith, Custodian
(Written by Elbert S.)

Dear Mr. Pinkley: - Report time approaches again and in my father's absence I will try to record some of the happenings of our monument for the past month. I have registered 365 visitors entering the Monument in 77 vehicles, representing 10 states and Washington, D. C. Our visitors for the month have not been so numerous but I find the following names on our registration sheet: On date of August 7, we find Dr. Carl P. Russell and Mr. Loeffler B. Miller, two Park Service men of the Berkeley office who stopped by on their way to Santa Fe for a short visit through the Mission and Indian Pueblo and spending a few minutes in our small museum.

A group of C.C.C. boys, about 36 in number, under guidance of Cap't. F. W. Carhartt spent Sunday August 12 in our Monument apparently enjoying their visit very much. On date of August 18 we were pleased to have Mr. Ernest L. Crandall Photographer, and Mr. A. D. Molohan, Range Examiner,

GRAN QUIVIRA, CONT'D.:

both of the Department of Agriculture, with us for awhile. Mr. Crandall was making some pictures of our Mission and he also got some very nice specimens of shrubbery that Mr. Molohon was wanting to collect.

Mr. W. G. Attwell, Associate Engineer, accompanied by his wife and son, came by late in the afternoon of August 18. While here, he and Mr. Leslie went over the road work. Mr. Attwell was well pleased with the progress made.

We have had another month of dry weather here with only a few rains about in the country. These light rains have been almost worthless as the atmosphere is so dry these showers seem to only last about a day after which it is almost as dry as before the showers come.

Our P.W. Project here goes steadily along under the management of Mr. Leslie and a great deal of good has been accomplished. The road of approach is now in such good shape that an ancient "Henry" can make it in high gear. Sincerely yours, W.H. Smith, by Elbert Smith.

From the summary with which this month's report starts, notice that Ranger Robert R. Budlong, better known as "Bud", began his duties as Custodian of Canyon de Chelly National Monument early in August. The report that follows is from Bud and tells how he is getting settled in his new location.

CANYON DE CHELLE NATIONAL MONUMENT:

By Robert R. Budlong, Custodian

Dear Boss: - This monthly report actually covers but eight days. I reached Chin Lee the evening of the 18th, and through the courtesy of the Indian Service am now temporarily established at the school, which opens the tenth of September. After school opens, I do not know where I shall be, but, if necessary, I can establish living quarters in some one of the many caves in the rocks. It might add a becoming touch of local color.

No accurate check of visitors was made prior to the 19th. Since that time, the register shows a total of thirty-seven visitors. We were honored by a visit from Mrs. Ickes during the week. Other visitors of note include Mr. Ansel Hall and Mr. Louis Shellbach, of the Berkeley Office; Mrs. White Mountain Smith, her sister Miss Mabel Brown, and Mr. Addison Pinkley; Dr. and Mrs. W. M. Winton, of Texas Christian University, accompanied by Ranger Alfred Peterson of El Morro National Monument; and Ranger Gay Rogers, of Aztec Ruins National Monument.

This week was spent working on the rim of the Canyon most of the time, since the rains have made the canyons impassable for any but cars equipped with "doughnut" tires. Last Monday, the 21st, I accompanied

CANYON DE CHELLY, CONT'D.

Cozy McSparron on a trip up both de Chelly and del Muerto Canyons, finding quite a number of recent inscriptions on the walls. A party of Boy Scouts and their Scoutmaster registered on the walls at White House during the latter part of July.

The trail down the canyon wall opposite White House is partially completed, and is a splendid piece of work. It is being constructed by Navajo Indians living in the vicinity, and when the trail is completed it will be of considerable help in solving the problem of controlling and caring for visitors. With this good trail at this point, I feel sure that no attempts will be made to descend the Canyon walls by any of the old handholds cut into the walls at other points. With only this one "main gateway" into the canyon from the rim, the problem of controlling visitors becomes much simplified. Only eight of our sixty-seven visitors used this White House Trail.

The revetments being constructed by the Soil Erosion Service are partially completed, and it is hoped that in addition to reclaiming some of the land that has been washed away by floods in the canyons, they will protect some of the ruins now menaced by flood waters.

The rains continue, and every day we have had showers here, or in the nearby vicinity. This afternoon rain fell at the head of de Chelly, and by dark the bed of the canyon was a running river. The weather has been warm, and in the canyons it is often too warm for comfort.

To facilitate the handling and registering of visitors, some signs will be necessary, and I am now at work on the lettering for these signs. At the present time it is necessary to keep two sets of registration sheets, since the road from Fort Defiance to Chin Lee passes near the rim across from White House, and visitors coming by this road apparently are not inclined to register as they leave the Monument at Chin Lee.

I am highly enthusiastic over the Monument and its great possibilities. I realize that this is a very sketchy monthly report, but next month I expect to report considerable progress and improvement in solving the visitor problem. Respectfully, Robert A. Budlong.

CHACO CANYON NATIONAL MONUMENT:

By Thos. C. Miller, Custodian.

Dear Mr. Pinkley: - The activities in Chaco Canyon National Monument for the month of August were as follows:

GENERAL:

Travel for the month of August was 248 less than for August 1933. I believe this is partly due to the approach roads being in such poor condition. Automobile travel bureaus and auto clubs will not direct people over the roads in their present condition. The approach road to the north that connects with State Highway 55, a distance of 24 miles, is getting no maintenance whatsoever. The approach road to the south, a distance of 22 miles, to the Star Lake Indian Service road, is in the same condition.

Chaco Canyon, Cont'd:

On July 29th, C. E. Mauldin of the State Highway Commission visited the Monument and was conducted through Pueblo Bonito and Chetro Keti by the Custodian. Of course, we talked roads as well as ruins. Mr. Mauldin told me that the State no longer owned the road, that it belonged to the Department of the Interior and as we only have a few dollars to patch the wash outs, it looks like the approach road is "nobody's baby".

WEATHER:

Maximum-----98 on August 1st Mean Maximum-----84.4
Minimum-----50 on August 24th Mean Minimum-----55.9

Precipitation-----1.67 inch; Greatest in 24 hrs, .89 on 15th.
Clear days-----8
Partly cloudy-----13
Cloudy-----11

TRAVEL:

1,014 people entered the Monument in 249 cars, busses and trucks, coming from 31 states and the District of Columbia. Foreign countries represented were Australia, China and Egypt. 554 of these registered in our book and received museum and guide service through the ruins at Pueblo Bonito. Many of them also visited Chetro Keti and made the climb over a steep, rough and slightly used stairway and trail to the top of the mesa overlooking Pueblo Bonito. Seemingly all were well pleased and enjoyed the trip as much as the trip through the Ruins. The hours of these trips range from 6 o'clock in the morning until it is too dark to see the ruins at night, on several occasions. We have had 158 overnight campers for the month.

Personnel:

Mr. J. L. Patterson who had been employed here at Chaco as Acting Custodian and in other capacities, was separated from the Service July 31st. Jean Griffin was employed as guide one day this month when it was necessary for the Custodian to be away from the Monument on business.

WATER DEVELOPMENT:

August 7th water was put in the Custodian's residence by tying our line onto the University line, through the cooperation of the School of American Research. As the Government well is located 1/2 mile from the Custodian's residence, this makes it much more convenient and saves a lot of time and expense hauling water.

SIGNS:

August 11th a large regulation metal sign was put up at the Kim-mi-nioli portion of the Monument, 17 miles Southwest of Headquarters.

CHACO CANYON, CONT'D.

SPECIAL VISITORS:

Mr. Frank Pinkley, Sup't. of Southwestern Monuments and Mrs. Gay Rogers, Ranger at Aztec, were here on July 27th. Mr. Ellis L. Howie, Director of the Childrens Museum Expedition of Indianapolis, Indiana, with a party of 30 students, and Richard Franke, son of Park Naturalist Paul Franke of Mesa Verde National Park, were overnight visitors in the Monument July 28th. C. E. Mauldin of the State Highway Commission was here on July 29th. Asst. Engineer J. B. Hamilton and wife from Mesa Verde were here July 31st. A party of archeologists from Beloit College, Wisconsin, was here on July 31st. Lieutenant Vincent Hall, world traveller lecturer, preacher and author, visited the Monument August 8th. Prof. Clyde Cluckhohn and 58 students from the University of New Mexico, were here on August 10th and 11th.

Road Repairs:

The approach to the north side of Chaco Canyon bridge was badly washed out during the month, and was repaired with F.E.R.A. funds. The School of American Research is doing a lot of erosion control work at "Yellow House" using F.E.R.A. funds, so with state trucks and plenty of men we soon had the approach safe for cars to cross.

HEAVY RAINS CAUSE WALLS TO COLLAPSE:

On August 15th it rained .89 of an inch in about 40 minutes here at Chaco. Two sections of walls in Talus Unit #1 of Chetro Keti, which has recently been excavated, collapsed. These were partition walls and of a poor type of masonry. One portion of the uncapped partition wall in Pueblo Bonito collapsed leaving a bad scar. Boss, unless we can get some money soon to cap more of these walls, we are sure to lose many of them.

BURIAL FOUND:

On August 16th a very rich burial was found in Talus Unit #1 at Chetro Keti. Attached you will find a report and three fine pictures of the burial, by Miss Margaret S. Woods, Chaco Canyon Field School.

The Indians held a Squaw Dance in the Monument August 23rd. about five miles from Headquarters.

This completes my first busy and enjoyable month at Chaco. Respect. submitted, T. C. Miller.

CHACO CANYON, Supplemental:

Report on the Finding of Burial #4, Talus Unit #1, Chetro Keti.
Written by Miss Margaret S. Woods, Chaco Canyon Field School.

"In the room tentatively numbered 1934-9 in the small group of rooms

Chaco, Suppl. Cont'd:

known as the Talus Unit #1 at Chetro Ketl, a burial was uncovered on Thursday August 16, 1934. It was covered by a group of nine pots and a small slab of burned sandstone. Five of the pottery jars were unbroken, except for the handle which was missing from the dipper end and which had never been included in the burial. The remaining four pots were in more or less fragmentary condition, but were restorable. Eight of the pots were black-on-white ware, the ninth a cooking jar of corrugated ware was burned black. One of the Black-on-White vessels in particular was interesting for its unusual triangular shape, with a raised neck in the middle of the upper surface and two small lugs for handles, one on each side of the neck. When the pot had been removed from the burial, a small handful of chips of obsidian, chalcedony and the like remained in position beneath the spot where the small slab of sandstone had lain, directly over the pelvis. Two arrowpoints, well chipped, were found with the burial, one in the fill among the pots, and one in the dirt which was later taken out and sifted from the burial location. Both were made with stem wider than the shoulder, slender and with narrow notches, one on each side. It is probable that the skeleton was buried in a woven garment or blanket. This was almost entirely disintegrated, but very small fragments of the cloth remained near the knees of the skeleton, showing signs, faintly, of red color design. It was, however, in such poor condition that it fell to pieces in the process of removal, and nothing could be done to save any of it.

"The burial itself was an adult man, as far as could be judged from the character of the bones and of the skull, and also from the fact of his having been buried with such care with food jars to carry his spirit, as we presume, to the spirit world. Such care does not commonly seem to be taken of the Soul of Pueblo women at burial. From the condition of the bones we judge that he was a man of not more than thirty or thirty-five years of age, since the skull sutures were still clearly visible, the skull walls still thick and strong, the alveolar processes in good condition and most or all of the teeth in place. The skeleton lay on its back with knees drawn up into a slightly flexed position, and its arms against its sides with the hands between the knees. It lay with the head to the east, turned with the face looking to the north and slightly upward. The feet were almost underneath the pelvis, and were curiously placed with the soles of the feet apparently in contact. In general the bones of the skeleton were in only fair condition for removal. The burial lay within about two feet of the ground surface, and must have been considerably exposed to dampness during the rainy seasons. In removing the bones as many as possible were shellacked to strengthen and protect them, but even with that care many of the more fragile of the long bones, the ribs and the like, were damaged."

August runs true to form for the entire year and gives the largest August since 1930, total number of visitors being 2184. Of this number many were from the extreme points of the world, several foreign countries and many states. No notable events concerning our visitors have occurred during the month. The run has been handled very efficiently by Mrs. Rogers and Mr. Norton. Many visitors express appreciation of our service and the treatment they have been accorded.

We are looking forward next week to a rather busy week-end with the Gallup Intertribal Ceremonial taking place Wednesday, Thursday and Friday. Many visitors the past week were enroute to the Hopi Snake Dance and stopped off here.

The month of August in our Public Works has been quite hectic. Every attempt was centered on the completion of our Great Kiva, even to the extent of foregoing many repairs we had hoped for with our ruins repair money. Even with this concentrated effort we found it advisable to delay the completion of this structure awaiting further funds. To have attempted the use of our entire sum would probably not have completed this structure and would have still left it in a precarious state together with several other jobs badly in need of completion.

Several rooms were covered with the evaporation type cover, one room fitted with the Vulcatex protection and several walls built back as a brace to overcome the danger of other walls collapsing. At the present time only a few individuals are being employed and they are used almost exclusively in the general clean-up. The possibility of further work makes it impossible for a thorough clean-up at this time. Our activities in the regular line of work have been about normal. We had some trouble with our pump this month and it necessitated a couple of men for two days. We even had to pull the tubing this time to make the repairs. In the repairs we used Monel Steel in the hope that this super-strength material will overcome the constant breaking of our sucker rod.

General conditions throughout this section are probably above the normal for the state. Naturally, the drought has had its effect but not to the extent of our neighbors in almost every direction. Prospects for fruit seem very good and unless an early fall destroys some of the late apples the apple crop is probably the best in many years.

We have noticed particularly the activities taking place at many of our National Parks and Monuments and certainly take pride in the development of the places in which our colleagues work. Several different posters and publicity material have been sent us from the Washington office and the fact that an attempt is being made to induce the American Public to visit the attractions we administer is inspiring. Our personnel feels that it behooves one to make added effort to match the effort put forth by the originators of this movement. Any visitors who come to our Monument can be assured of the high type of service that is prevalent in our National Parks and Monuments.

With every good wish to the folks at Casa Grande from the force at Aztec,
I am,

PIPE SPRING NATIONAL MONUMENT

By Leonard Heston, Acting Custodian

Again the day of accounting has arrived and I will give you the happenings at Pipe Spring for the month of August.

First on the list this month is the travel, which has been very interesting and shows a substantial increase.

Record No. 1		Record No. 2			
Out State Visitors		Local Travel, including			
		cars, trucks, wagons and horsemen,			
		totalled		825	
		Last month.....		580	
		Increase.....		245	
Kansas	2	New York	5	Total travel for August	1075
Utah	85	New Jersey	2	Total " " July	838
Arizona	74	U.S.N.P.S.	4	Net increase for August	237
Idaho	15	U.S.F.S.	2		
California	23	U.S.I.S.	4		
Ohio	5	Fire guards			
Oklahoma	3	N.P.&N.F.	21		
Colorado	3	Total....	250		
Illinois	2	Last month	258		
		Decrease..	8		

On August 23rd, the pages of history were turned back and I spent an hour enjoying the life history of one of the pioneers who lived here when the Fort was in the making. Mrs. Nettie Winsor Assy who came here with her father in 1879 and lived here until her marriage to Mr. Assy, then a laborer working for Mr. Winsor. She is now nearing her 90th birthday, but still likes to visit her old home here at Pipe Spring. Mrs. Assy told of many interesting events that happened here, and there were 14 of her descendants with her and they made a day of it by going over the place from the top of the hill to every nook and corner of the Monument.

Our storms in this country have been in spots, giving some regions a lot of rain and others practically none. Pipe Spring has had no rain at all to speak of, though on the 25th the water did run down the road and off the house. We have no summer or fall flowers this year except where the water on the Monument has been turned and there they are in good shape.

Many of our local stockmen are going to sell their cattle if an arrangement can be made so that the Utah authorities can handle them, otherwise I think there will not be many sold as our county men say that the stockmen will have to stand all expenses and loss to the railroad which is 100 miles away and very little feed and water enroute. The Utah authorities take the cattle at certain towns thus relieving the cattle owners of most of the expense.

On August 3rd, the Indians started to dig the trench to lay 4-inch pipe that is to carry off the stockmen's third of the water to the south side of the reservation, and they have had a crew of about 15 and they have been working at it most of the time. I am told by the Indian stockmen that the pipe would be ready for the water by the last of the month.

PIPE SPRING NATIONAL MONUMENT, (CONT'D.)

The question is will the water go into the pipe and who is going to turn it in? Well, the stockmen are up in the air over it and it looks like they are the little boy who was up the apple tree and farmer was throwing rocks at him. The boy didn't want to come down nor did he have to, but he did just the same and I think from the talk of the Indian Service, the water will have to go through the pipe if the cattle are to get any of the water.

On the 25th, I went to Kanab to meet with the stockmen in hopes that I could get some kind of agreement about the pond in the meadow and the possibility of our maintaining it by the use of the stockmen's water. For some reason which I could not find out, they all blew up and I could not get any word or suggestion in that they would listen to. They even went so far as to suggest that they get their water from the main spring as they were owners of one-third. Some expressed themselves that they had no faith in any of the Government Services and wanted to get as far away and have as little to do as possible with them.

This much I did tell them, that the Park Service did not work against the stockmen and that the water that the stockmen got was coming from the tunnel and from the division box to the west end of the ponds in front of the Fort after the water had gone into the ponds. At present it looks like we would have to level off the pond in the meadow but I have not given up hope yet as there are certain things in the development that might change the attitude of the stockmen so that we can use the water to keep the pond full.

I took a clock and a 15 gallon can and made a place where I could catch all the water that run out of the pond and this I did in the morning and evening to see just how much loss the stockmen would have in the pond and to my best measurement, I found that there was on an average of $1\frac{1}{2}$ gallons per minute in the evening and a little more than 1 gallon in the morning.

So much for that until I get further material. I assure you that I am doing all I can to keep that beauty and attraction we have around here. Is there any chance for you to get up here this Fall for a few days? I might say that I am planning to take a trip to the Southwestern Monuments this winter or next spring before the season opens up for travel, as I want to see how things are carried on at the other monuments and meet my co-workers in the Monument Service.

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CAPULIN MOUNTAIN NATIONAL MONUMENT

By Homer J. Farr, Custodian

I have pleasure in submitting the following August report, for this Capulin National Monument. This month has been spent in working on the roads and parking area on top of the Mountain. The base of the retaining wall around the parking area is almost complete. That is the wall built up to the level of the g at the parking area. The guard rail of the wall will be commenced this next week which will be approximately two hundred ninety feet long and eighteen inches wide and 24 inches high.

This month we have had considerable more than seven thousand visitors, and I have noticed that more cars are from the New England states than ever before. We have had more than four hundred visitors today at the Mountain and I noted they were from seventeen different states.

capulin mountain national monument, cont'd.

I am working about ten men on the parking area, trails and road under an F.E.R.A. project and we are fast putting the road and trails in good condition.

Fencing: This Monument is now completely fenced cattle proof with the exception of one-half mile yet to be constructed and the cattle-guard to be finished.

Weather: Last Sunday night we received about three-fourths of an inch of rain and this is practically all we have had this summer, great caution is being used and all men have been cautioned over and over again about ~~the~~ fire hazard we now have, as the Old Volcano is yet very dry even in spite of the little moisture we had this week.

Comments: Many travelers have expressed delight with the drive this week and several have told me that the drive was much more beautiful than the Pikes Peak, Colorado drive.

Geologists in party: On September first we are to have a group of fifty Geologists to make us a visit and study this Volcano and I hope to be able to gather and report some of their conclusions regarding this particular Monument.

* * *

TUMACACORI NATIONAL MONUMENT

By George L. Boundey, Custodian

Visitors for August total 641. Engineer Attwell, Mrs. Attwell, Mrs. Palmer and Mrs. Miller, all from Casa Grande National Monument, paid us a short visit in the earlier part of the month.

The water in the Santa Cruz river is so high that the people living on the other side have much trouble in getting back and forth. Two cars were lost in the river last night; fortunately, no one was drowned. A cowboy, trying to cross the Sonoita on his horse, was drowned several days ago.

FERA funds gave out on the 20th so our project has been held up since then except for some work Mr. Puckett and I have been doing in preparing for the work which starts again on the first of the month.

We have many treasure hunters at work in this vicinity and they are continually asking to run some lines or do some surveying on the Monument. I find that all the survey lines seem to center at certain points. I know of two men who are careful diggers and to forestall any night digging, I am letting these men under my personal supervision trace out the foundations of buildings which lie in the immediate vicinity where the lines seem to center. This work is forestalling any digging contemplated by the night forces and I am sure it will satisfy the treasure hunters that there is not the \$5,000,000 in gold they are searching for.

TUMACACORI NATIONAL MONUMENT (CONT'D.)

Besides some cannon balls and some miscellaneous objects which a man dug up at Tubac the other day, was a portion of one of the old bar shots they used in cutting down masts and rigging in the days of sailing vessels. He has promised them to us as soon as we have a museum but like most of the other material found in the vicinity somebody else will get it long before we are ready for it.

* * *

EL MORRO NATIONAL MONUMENT

By Evon Z. Vogt, Custodian

The month of August is almost gone and with it the changes for any considerable growth either of grass or crops has passed away. Good rains have visited us the last few days but with frost but 15 days away feed stuffs must be laid away and grama and other grasses may grow until the heavier frosts of October but there will not be anything like the grass for livestock there is in a normal year.

Travel has stood up well for us with many parties from far parts in the United States and a few from England, South Africa, Australia and Germany. A total of 605 registered, or were noted in the register, while there are always some who leave no written record of their passing this way or are over seen by Custodian or Ranger.

Within our grounds the grama is making a late heading out of seeds while wild flowers are brilliant tho not so tall as in other years. The swallows that were born and nurtured by the thousands under the friendly ledges of our great cliffs, have grown brave and flown ungratefully away.

Discoveries of the month include a prehistoric hand and foot trail in the first great crevice west of the Onate inscription on the south side of the cliff. This trail, tho dim in places, leads to a shelf in the dark recesses of the rock which we were able to reach by making a 60 foot ladder out of our flag pole which luckily had not been set up. On the first ledge I found other hand and foot holes leading still higher and with our small ladder made of 2 by 4's we were able to go higher only to find that the old Indian signs lead still higher ledge which is about 10 feet in diameter. It looks like it might contain natural reservoir of water. Under it the sides of the stone are stained with moss and algae seeming to promise a water basin which we cannot reach without another 20 or 30 foot ladder.

It is interesting to note that a Zuni Indian who seemed to have much lore on petroglyphs, interpreted the glyphs which cover several square feet of cliff a little to the east and around the corner of the cliff in a way which seems to logically connect the glyphs with the place we are exploring. The old pecked pictures show hands and feet, a trail, an obstruction on the trail and then a round hole. The Zunis interpretation is: By hand and foot one must climb over an arduous trail way past the obstruction (perhaps the top ledge) to the hole which must contain water.

EL MORRO NATIONAL MONUMENT (CONT'D.)

We now think that what we will actually find is water and that perhaps this was the last water available in drought times for the prehistoric hunters, that when all else here nearby at least, had dried up, the "pose" in the cove, the aguajes and charcos on the mesa, the shallow wells, that the water, here in this deep high recess of shadowy sandstone, lasted long after the rains which had run down between the cracks of the cliff to fill the natural basin.

Three red colored pictographs, one of a large split hour glass figure, were noted on the north face of the monolith just east of the horse trail which goes up to our north ruin. These old paintings are quite dim and are near the ones of the cat and ears, the four arrow points pointing to a common center, and of the maltese cross.

Distinguished visitors included Mrs. Anna Wilmarth Ickes and her friend Dr. Sexton of Washington, D. C. Mrs. Ickes is the wife of the Secretary of the Interior and has become an annual visitor here, coming over from her summer home east of Gallup on highway 66. The rain did not prevent Mrs. Ickes and party from climbing up to the ruins on top where she inspected, with approval we think, our new stone cut trail made during the winter and summer with CWA and FERA labor.

Ever since the 23rd, I have been expecting Dr. Bryant of the Washington office to roll in, but so far he has not come. There are some important points about the old inscriptions which I would like to discuss with him. My conclusion now is that he attended the snake dance at the Hopi villages and will not come until about tomorrow.

Ranger Peterson is away on a much deserved vacation of a week. With our friends Dr. and Mrs. Winton, who come here every year and camp in our Pine Cove, he is making a trip which includes Fort Defiance, Canyon de Chelly, Ganado, Wide Ruins, Grand Canyon, Hopi villages and the snake dance, Petrified Forest and Painted Desert. Upon his return he hopes to take in Frijoles, Chaco Canyon and perhaps Acoma. These trips will give him a greater knowledge of the other Monuments in the West as well as an intimate knowledge of roads and conditions.

Mrs. Vogt, our son Evon, Jr., aged 16, and his guest, Charley Ripley of Chicago, and myself, left in our new Ford V-8 on the ninth for the Rainbow Natural Bridge and sundry points to the northwest of here. In eight days of driving we only put 800 miles on our speedometer, but what we put in our memories we will never forget.

Discoveries we made include - mistletoe in pinon trees which we had never seen except in cedars and the longer mistle too which grows on lower levels in cottonwoods. 2. Oak coals for cooking rival cedar, but for making toast the clean and potent little coals left from a fire made of chico or the tall thorny greasewood are the best we have ever used. 3. There are few humans left and I doubt if there will be any born that are more interesting to me than the Wetherills with their interesting setting in their unique ranch home.

EL MORRO NATIONAL MONUMENT (CONT'D.)

With our FERA crew at the Monument, we have continued our graveling of the trail, scarifying same before spreading the gravel. We have also done considerable road work at bad places both east and west of our entrance. Additional road signs have been painted and placed.

The rains have not damaged our great 15,000 cubic yard fill made in the camp cove last spring. The Rocky Mountain bee weed vies with the oats and yellow clover to build new sod while during the month in one week we transplanted 1100 squares of grass sod over the area watering same and tamping the squares down well. This grass has taken hold firmly and made good growth and is now heading out into seed. It will no doubt spread some by another year and help us hold the sand from washing.

Both Mr. Richey of the Landscape department and Mr. Hamilton, Ass't. Engineer, visited us to guide us over our work places in the work we are doing with FERA labor. With regard to all members of the clan.

* * *

EL MORRO, Supplemental:

I just returned last night from a wonderful trip with Shirley, my son and young Ripley, to Ganado, Keams, Walpi, Oraibi, Hotoville, Tuba City, Rainbow Lodge and Bridge, Shonto, Botatkin, Wetherills, Chin Lee, White House Ruin and home. I may cover some of it in my report. It is very dry every place except right here near Zuni, Ramah and El Morro. The sheep and goat reduction plan will take care of itself unless the snake and antelope priest brings bring rain and plenty of it right away. The pelt business will be going strong by spring among the Navajos unless all conditions change and change fast. I never saw it so dry. The soil erosion ran don't like the Russian thistles, that is some of them, but even the dry ones, if they get well soaked with snow or rain by spring, will be licked up like corn by the Navajo sheep which will starve to death in some places.

We have had some very heavy rains. What would happen if we had really steady rain to fill up our cove? At the rate the water is being hauled and at the rate we can let it run off, we are not protected as we should be from a damaging overflow. I want to raise the thought in your mind that maybe we had better get some pipe somewhere and get the water out of the cove to the land east of us so that farmers can haul it off more readily and use it down to a certain point in our reservoir. After I drove thru all the water along the road coming out this morning, I was scared to death that we had had a flood in the rincón and some bad washing, but luckily there wasn't enough to fill up and flow over.

E. Z. V.

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Just a line to let you know that I have not forgotten that a monthly report is about to go to press. I have not written my usual memorandum because, with Custodian Vogt's permission and cooperation, I was fortunate in accompanying Dr. and Mrs. W. M. Winton to Canyon de Chelly, the Grand Canyon, and the Hopi snake dance. In this way I have taken my weekly days off all in a continuous row.

Mrs. Ickes came to the Rock one day and we just reached the top of the Mesa when we were caught in a shower, but a good time was had by all. We enjoyed her visit very much. Accompanying Mrs. Ickes was Dr. Sexton from Washington, who is very well acquainted with the Park Service officials.

Regarding the problem of too many cottontail and jack rabbits, two months ago I reported that unless natural enemies developed something might have to be done about them. The natural enemies seem to be putting in appearance, since Dr. and Mrs. Winton report the presence of a bobcat around their camp at night. At any rate, jackrabbits do not seem to be so numerous, although the cottontails are still with us in numbers. It would seem that the latter would be the first to be decimated by bobcats rather than the jacks.

* * *

WUPATKI NATIONAL MONUMENT

By Jimmie Brewer, Ranger-in-Charge

Making this "short and sweet" because I'm head-over-heels in hard work. We moved out here the eleventh and found the roof at Citadel needed a central floor support, and have been subdividing my time between taking care of that, building a home here at Wupatki, and regular Ranger duty. You can't jack the Citadel roof up too suddenly because the main viga is cracking as it dries out; I go over every second day and boost it up an inch or so; have the timber ready to support it when it has been lifted to the proper height.

Had my friend Jimmy Kowanwytewa out here on the last two Sundays, and together we plastered the walls of Room 36 and dyed the floor--so that the room of the pueblo in which we will live is reconstructed comfortably now with native workmanship in part.

We're just about ready to move in permanently at the pueblo itself, instead of living in the cook shack which Dr. Colton provided for the CWA workers. Living down there has been unsatisfactory in that during meal hours we were unable to be at the site and missed some early and late callers. Among those missed was Budlong--we saw his name on the register, but that was as near as we got to him--Very sorry to have missed him.

The day we moved down here Mr. Collinson, Land Commissioner of the Santa Fe railroad, was here checking over section corners in preparation to turning over sections valuable to the Monument. I rode down to Wukoki with them because they were unable to find the road. After a very thorough inspection Mr. Collinson seemed kindly disposed to trade off the Wukoki section and any others to complete the hook-up.

WUPATKI NATIONAL MONUMENT (CONT'D.)

On the 12th Dr. Bryant was here under the able guidance of Dr. Colton and Bob Rose. I noticed Dr. Bryant arched his eyebrows when Dr. Colton told him the Citadel group was nine and one-half miles from the Wupatki group--may have been just the late hour and what this mountain air does to one's appetite, but don't you think we could bring these two groups a lot closer with a little road work?

A little road work reminds me of the anticipation with which one starts to town in the "now" pick-up. Joking aside, it's a swell little automobile and no end of help in cleaning up around here.

Your letter regarding the road signs was in the mail this trip to town--knowing what not to expect now, I'll go ahead on temporary signs which will help the traveler in sorting out roads to sheep camps, hogans, and Monuments. We've been getting our share of the English students seeing the United States on fellowships--and one of them said the only dependable clue to Wupatki's whereabouts was the best traveled road--and suggested partially obliterating the tracks of the pick-up where we'd turned off the road once, in order to avoid confusion! It isn't quite that bad as there were 190 visitors to the Monument during August--a number which we don't doubt would be swelled considerably by good directional signs. We'll see if that's right this next month. Of the 143 visitors to Wupatki, only 34 went to Citadel; and of the 81 visitors to Citadel, only 47 went to Wupatki. Which seems to point out as one good deed we can do the traveler, the telling them of the other section of the Monument!

The English travelers mentioned above have so far been our most enthusiastic visitors--if length of time spent at Wupatki counts in determining that. Two stayed two days with us, and the second part of one stayed on for four days. We surely enjoyed them, too.

We are looking forward to doing a good deal of entertaining in our "500-room, \$500-a-month home"--and are sure that any member of the Park Service would grin and like the minor inconveniences of two walls, no roof, and scorpion and snake neighbors. It is a large home--but maybe we'd better designate 99 rooms as landscape and use only the one.

The invitation is still open, however---

Jimmie and Sally were just getting settled down in their 100 room house when Dr. Bryant and Bob Rose called at the Monument. Jimmie is worried about his rent. If a 5-room house draws rent at \$20 to \$35 a month, he feels like he might be called upon for \$200 to \$350 rent for his mansion. Incidentally, this is probably the first time in 500 years that a young couple has spent a honeymoon in Wupatki Pueblo.

* * *

CHIRICAHUA NATIONAL MONUMENT

By Charley E. Powell, Ranger

While we are in the midst of preparation for our Dedication of the new road, it is now time for another report, in which we will report progress. You will hardly recognize Massai Point now. Barbeque pits, parking areas, speaker's stand, etc., have made quite a change. The road is being oiled, too.

Mr. Gordon and Mr. Borden, who have been renamed "Haig and Haig" are just getting nicely into their stride.

From one standpoint this celebration is a considerable disappointment to me and my assistants, as the road is now closed for oiling, and we can not entertain visitors as we wish. In fact, because of the work going on at Massai Point and on the road, many visitors have been turned back without seeing the Monument by the rumors that the entire Monument is closed and will be until the Official Dedication on September 3, 1934. We are doing all we can to overcome the difficulty by showing such visitors as we do get all of the Monument they have time to see, and those who have reached us have been well repaid for the time spent.

Those who stop at the Ranger station first see our flag, our miniature balanced rock, and then our flower display. They are asked to register and are then shown by pictures and chart what the special features look like and how to reach them, and we can induce them to walk or ride, they are guided to the best views.

We have been very careful about checking travel this month and believe that our report is reasonably accurate. We wish to report the number of visitors since last report as follows:

Visitors registered.....	567
Visitors who did not register.....	535
Total.....	1102

Our register shows the following as the source of travel:

Arizona		From outside of Arizona by states:			
Tucson	70	Texas	72	Nebraska	1
Bisbee	66	California	27	Ohio	1
Douglas	98	Kansas	8	Oregon	1
Willcox	36	New Mexico	5	Tennessee	1
Dos Cabezas	34	Oklahoma	4		
Other towns	127	Colorado	3	Argentina	3
		Minnesota	3	Mexico	1
		Arkansas	2		
		Massachusetts	2		
		New York	2		
		Pennsylvania	2		
		Indiana	1		
		Iowa	1		

CHIRICAHUA NATIONAL MONUMENT (CONT'D)

We have a fine sign painter now, but the paint does not fit the requirements of the Resident Landscape Architect, so we are being delayed in the work of renewing the old signs. We may have to send some of our volunteer guides out as living sign posts, to prevent the crowd from getting badly scattered on Labor Day. Jack Torrell has a grudge against one certain "Jesse James" trail. He thinks too many people enter the Monument that way and he thus does not get a chance to count them.

There have been one or two very amusing things which have happened during the past week or two, which will be appreciated by anyone who is familiar with the Park Service. The first was when Jack Torrell asked the driver of a car (New York plates) if he would please register and let the Ranger tell him about the Monument. His answer was "How silly of you". Then the gentleman who was not silly drove up the road to about opposite the public campground and returned. I suppose he thinks he saw all there was to see, just some rocks.

While Mr. Irwin and Mr. Ball, Bisbee and Douglas photographers may have better collection of pictures of Chiricahua scenery than we have, it is dubious that as good a collection can be found any place else. We have more than 150 pictures on exhibition at the Ranger station and at least two that can not be found in either of the other good collections mentioned.

The Camera Club contest was won this time by Robert Wallace with the inclosed picture. Honorable mention went to Garland King, David Thurman and Armando B. Yslas. While the judges were deliberating, a new member of the CCC came in and asked the Ranger what he had done with the two by four stretchers. Mr. Hammond sent him to the Doctor for them. Among other pictures in the contest was one of Mr. Wallace with a fawn which had blundered in the way of a truck recently.

Clerk MacElreath will be very careful about climbing around on balanced rocks in the future. It is reliably reported that he had to promise a treat before he could secure assistance in getting off the last one he climbed. The picture taken was not in the contest. A later report says this treat cost "Mac" \$1.00 by the time he treated the crowd.

Our next contest will not be in the same category. We have started a modeling contest. The entrants will try to imitate some of our rocks in clay. It will run for a week only, and we will try to have the winning models reproduced in quantities by the time for the celebration for souvenirs.

We have just received word that Mr. Kittredge and Mr. Atwell will be here tomorrow. I hope they will see a way to permit the tourists to reach the Monument over the newly oiled road, as it will be very lonely here with no traffic

* * *

NAVALJO NATIONAL MONUMENT

By John Wetherill, Custodian

We have had sixty-five visitors at Betatakin and eighteen at Keel Zool during the month of July. Several of the cars had trouble on the new road after leaving the Shanto road. The expedition is leaving here on the sixteenth of this month. There will be twelve of them at Betatakin on the night of the fifteenth. The ruins have not been disturbed since Milton Wetherill has been on the job. Dr. Cumming's party expects to visit the ruins tomorrow. The party is under the care of Dr. Cummings' son. They left the Doctor in the hospital. He was unable to stay with the party. I want to get this out by the fifteenth so I am making it shorter than I otherwise would have. With best wishes.

* * *

NATURAL BRIDGES NATIONAL MONUMENT

By Zeke Johnson, Custodian

I came in last night from the Bridges and everything is lovely out there. There has been just rain enough to keep plenty of fresh water in the pools and the grass and vegetation are still trying to keep green but making a poor stab at it. There has been just about the same travel this month as last. There were 23 in one bunch from New Jersey who stayed two nights with me. The same complaints keep coming, poor roads and no accommodations when they get there. So many people come to Blanding and when they find out that there are no accommodations out at the Monument, they turn around and go some where else. I honestly believe that one-half the visitors go away from Blanding without coming on out when they find out that they can't stay here over night. I am still in love with the Monument and will stick with it. I hope someday we will have Custodian's quarters, cabins and water that has not been jackasssed up that long hill. I hope this finds you folks all well.

* * *

WALNUT CANYON NATIONAL MONUMENT

By Paul Beaubien, Ranger-in-Charge

In submitting my first report, I wish to acknowledge favors received from a number of people. Mr. and Mrs. J. M. Brewer did everything in their power to help me start correctly. On the 13th, Mr. H. C. Bryant, Dr. Harold S. Colton, and Mr. and Mrs. Robert H. Rose spent some time here. A number of "problems" seemed quite simple after their visit.

Later Dr. Colton, Director, and Miss Katherine Bartlett, Curator of Anthropology, both of the Museum of Northern Arizona, provided me with some fifty-odd reports dealing with the Archaeology and natural history of this region. Also, Miss Bartlett guided me through three buildings in order to acquaint me with the cultural remains from Walnut Canyon. These objects would be displayed at the Ranger station could an exhibit case or two be provided for their reception. They would naturally add to the educational facilities of the Monument.

WALNUT CANYON NATIONAL MONUMENT (CONT'D)

On the 18th and 19th, I spent some time with Dr. Lutz and party from the American Museum of Natural History, who were making an entomological survey. During the few hours spent on the floor of Walnut Canyon where walnut trees are supposed to be plentiful, we found not one. However, it will not be necessary to change the name of the Monument as two miserable specimens were found on the canyon walls a few days later.

One question that has not been answered entirely to my satisfaction is where I should place myself to be of maximum service. At present I spend the rush hours at the "lookout" where the new trail leads down to the restored dwellings. Visitors seem to wish for information when viewing the dwellings that would sometimes have to be forced on them at the Ranger station three-fourths of a mile away. Of course, many who have been here before the newer trail was built prefer to guide their friends down the trail from the Ranger station without reading the direction signs. I am now placing some brief informative notices along the trails and in the registration booth at the "lookout". There were only a few signs along the trails, all informing the visitor what not to do. Of consequence, if the traveling public treats the later notices kindly, I will be able to give information at several places at once.

Since my arrival there has been some rain every day except two. One can almost estimate the duration of each rain by the number of registrations on that day. The total registration for this month was 1910 in comparison with 1822 reported for the first twenty five days of July by Jimmy Brewer.

* * *

Paul states here that the problem of just where he could place himself to be of maximum service to Walnut Canyon visitors is bothering him. This is one of the problems which he can best work out on the ground. Dr. Bryant and Bob Rose when there suggested that he experiment with keeping himself at the Lookout during busiest times for there (a) visitors get their first real view of the ruins and of the scenic canyon and there their curiosity is first really aroused to the point of asking questions, and (b) the location for control and protection of the Monument is very strategic.

Walnut Canyon's visitor problem is new to us and we would like to study the results of the various methods Paul tries there.

* * *

MONTEZUMA CASTLE NATIONAL MONUMENT

By Frank L. Fish, Ranger-in-Charge

The following report covers the activities for the month of August:

Weather was pleasant during the greater part of the month. Three heavy rains

MONTEZUMA CASTLE NATIONAL MONUMENT (CONT'D.)

occurred during the past twenty days, spaced approximately a week apart and as a result the country about is much greener than during July.

The sudden rise in the creek after the first rain did some damage to the septic tank under construction, but with the \$500 additional emergency appropriation everything should be taken care of nicely. Visitors numbered 1654 for the month, an average of 53 per day. Foreign countries represented were Australia, Belgium, England, France and Mexico.

Mr. Neshitt and party of students from Beloit College, Wis. were here during the month, and I might add that they had been to Aztec and were highly pleased with the service given them by Gay Rogers. Robert Budlong stopped for a short while on his way to his new assignment at Canyon de Chelly. Bob Rose and Marie came for a short stay one evening and left with a promise of coming back for a longer stay in the future. Dr. and Mrs. John L. Kuer of Long Island University in New York, who have been working in Chaco Canyon during the past two years spent a part of one Sunday with us. A young man visitor from England on his second trip into the Southwest brings us some gossip about the newly married folks at Wupatki, Mr. and Mrs. Jimmie Brewer, for those that don't know, it seems Jim is the best cook so far, but Sally excels in making wheat cakes. Of course, it may be prejudice on the young man's part, as Jimmie had him mixing cement by moonlight and that is considered one of the highlights of his trip.

Construction has progressed satisfactorily this month seeing the completion of the tool and implement shed and the stream revetment. For fuller details I refer you to Mr. Brown's report (follows).

The roof on the reconstructed room at the recently excavated site has leaked and is sagging badly in the center. This room has all the artifacts resting as they were found and should be fixed at the first possible opportunity.

It might be of extreme interest to place on record the navigation of Beaver Creek for the first time by a crew consisting of the Ranger force and Norman Jackson. These intrepid explorers pushed, pulled and tugged the good ship Murphy fully 300 yards upstream and then fearlessly turned around and shot the rapids recently created by digging a trench through a gravel bar. Lusty nautical terms were shouted by all three as the boat swiftly bumped along. The shouting and razzberries by the women folks on shore had little effect on the boat but did bring our one and only Engineer out of a sound sleep wondering what the ----!

* * *

Montezuma, Supplemental

By Harry F. Brown, Foreman

Work for the month has moved along satisfactorily. The equipment shed is complete except for cleaning up and grading for drainage. We will have every-

Montezuma, Supplemental (Cont'd.)

thing pretty by the first of the month.

The main revetment is complete except the gap that was left to turn Beaver Creek behind the revetment for silting in purposes. This experiment has not proved satisfactory as I find that the natural flow of the stream does not carry sufficient sediment to do any material good. However, the diversion dam that was built to turn the water behind the revetment will serve the purpose of backing up Beaver Creek and form a very attractive lake. Of course, an extreme rise will carry this dam out.

Of the sewage disposal project, the septic tank and the aeration trench are complete and safe from any flood that might now occur. I believe that ten days will complete this project in full.

The trail through the newly opened ruins is a problem. With the assistance of Mr. Fish and Mr. Steen we are going ahead but we have plenty of problems confronting us. I certainly hope that you and Mr. Attwell can pay us a call and give us some expert advice.

* * *

WHITE SANDS NATIONAL MONUMENT

By Tom Charles, Custodian

It has been nearly nine months since we started work on the construction of the eight miles of road into the Great White Sands and in that entire time the road into the them has never been wet. It is true that at times little local showers have passed across this piece of road at places, possibly a half-mile or a mile wide and in that way we can judge, after a fashion, as to how our road will act if and when it does get wet. The clay which we hauled an average of 13 miles to plate this road is proving to be real clay. It has stood the worst drought in the history of the valley and still the surface of this plated road is as hard and slick as an oiled highway. Our worry about the dry weather is about over so far as this road is concerned, and it is the dry weather which causes 90% of our road troubles. We are not bothered much with wet weather even in normal years. It is evident that the plated sections of this road are going to stand the dry weather to perfection. We are also pleased with the results in the places between the sand hills, where there is no plating. In those places the automobile tires have packed the hard, salty crust until the tracks are slick as an oiled pavement. These tracks seem to be impervious to water and after a sharp, dashing rain, they are not slick like the clay road. So it seems at the end of more than six months experience with this new road that the only difficulties which we may experience are those which will naturally come with wet weather.

In the past month I have had chemical tests of the water from four different wells in the White Sands National Monument. Mr. H. B. Hommon, the Sanitary

WHITE SANDS NATIONAL MONUMENT (CONT'D.)

Engineer who signed the report, says: "It is not believed that the chemicals present in the water will have any bad effects on people drinking the water from any of the four sources." This, of course, is a very gratifying report, in view of the fact that it has been believed for years by the surrounding stockmen that good water could not be obtained in the Sands. All four samples were high in sulphates, so much so that Mr. Hommon says they "no doubt cause taste." All except one sample would also have a taste of ordinary salt. All in all it impresses me that we have had a very satisfactory report.

Dr. Fred W. Emerson of the Botanical Department of the Las Vegas Normal has made several visits to the White Sands. In the past month the Science Service of Washington, D. C., sent out a syndicated article concerning the plant life in the Sands. This article says, "As in all drifting sands there are only a few species of plants that are able to grow upward fast enough to keep from being covered by the advancing dunes. In the White Sands there are only six species that commonly succeed in the moving sand. They are cottonwood, rabbit brush, aromatic sumac, a shrubby pennyroyal, a yucca, and that peculiar gymnosperm, Ephedra. Some of the individuals of species that usually grow to be only shoulder high under ordinary conditions grow 40 or 50 feet upward through the dunes. All of these develop numerous roots under the sand."

Boss: I'll appreciate it if you will watch that Ranger on the Chiricahua. Sounds to me like one of those old race horse "ringers". Where does he get that "new baby" stuff? If I can read Mr. Ickes' compilation that "child" is an old battle scarred, war bedecked hero of many seasons service. By the way, you might give me a helping hand right now if you will crowd along that Ranger service at the White Sands. When I get an actual count out there, I am going to be in a better position to crow over the crowds.

* * *

More: Here is a new one for the White Sands. An old friend, a goat man from the far part of the county has just left the office. In recounting the virtues of the Sands, he said, "Tell you what you can do with that sand, if you're not too highbrow, you can polish your teeth 'till they shine like pearls." I am not putting out any patent nostrums nor am I flaunting any flags in the face of the more unfortunate brothers, but I will not object if you see fit to let this go into the report; it should at least help to hold that boy from Chiricahua.

- - -

In that next to last paragraph, Tom has just about called Charley Powell's hand. We're just sitting in our seats waiting for the outcome.

It was a little hazy on the day of the great Chiricahua Labor Day Celebration. Nobody knows exactly why, whether it was a dust storm in Texas, or what. Someone was heard to say that Charley Powell thought it might be Tom Charles over there kicking up some of his gypsum dust in New Mexico just trying to dim Chiricahua's brilliant occasion a little.

* * *

Visitors for the month of August have shown a decided increase over 1933. This year our register shows 1376 visitors who were personally conducted by Park Service personnel on tours of the ruins and museum as against only 1023 in the same month last year, a net increase of 353 or nearly 35%. These 1376 visitors came in 396 cars from 37 states, Washington, D.C., Alaska, England, Mexico, Guatemala and Switzerland. The greatest number were from Arizona; California was second; Texas third and Oklahoma fourth. The Rangers were busy for it required 313 trips through the ruins and 293 lectures in the museum to explain to these visitors the features of the Monument. In addition to the 1376 personally contacted visitors there were 128 who required no service, being picnickers or turn-a-rounds.

The weather has been hot most of the time but rains relieved it at intervals. The average maximum was 102.87 degrees and the average minimum was 74.45 degrees. The average temperature for the month was 88.66 degrees. The maximum temperature was reached on the first day of the month when the thermometer reached 114. The minimum was 69 degrees. Total rainfall was $1\frac{1}{4}$ inches. There were 16 clear, 13 partly cloudy and two cloudy days.

Ranger Budlong, who had served very efficiently here since April, was transferred during the month to the position of Custodian, Canyon de Chelly National Monument. I was mighty sorry to lose "Bud" as Ranger, but wish him all the success in the world in his new job.

I was on sick and annual leave for 27 days during the month going to Oracle on the 2nd and returning to duty the 31st feeling much improved.

No activity of any kind was carried on during August. FERA labor is available and materials are on hand, but the State of Arizona will not furnish any supervisory personnel and when crews are changed every three days it is impossible to carry on any work without competent supervisory direction. It seems too bad to lose this opportunity to accomplish needed work for the lack of a few hundred dollars to hire proper personnel.

George Grant, Park Service photographer, spent a couple of days at the Monument and took about 60 plates of the features of the Monument. Chief Engineer Kittredge stopped enroute to Chiricahua National Monument for a short visit.

It has been a fairly quiet month at Casa Grande and we are catching our breath getting ready to go at full pace a little later.

* * *

ASSOCIATE ENGINEER'S REPORT

By Walter G. Attwell
Associate Engineer

Both ends and the middle of August found me at Chiricahua National Monument, making preparations for the Labor Day Celebration. I was at Casa Grande several times during the month, cleaning up fiscal matters and correspondence.

On August 8th, I visited Montezuma Castle in regard to the construction of the projects under Foreman Brown. These were the stone garage and equipment shed, the revotment, the sewer system and septic tank and the ruins trail.

On August 9th, I drove to Flagstaff and effected the transfer of an obsolete Chevrolet pick-up from the B. P. R. This car was delivered to Ranger Brewer then at Walnut Canyon. I visited the White Sands on the 17th, looking over the entrance road. Custodian Tom Charles was flat on his back with four doctors attending him. He confidentially acknowledged that he had been regretting that he had not led a better life.

Foreman Leslie at Gran Quivira has improved that entrance road greatly. When I was there, the grading was completed and it was all ready for graveling. The parking area is also graded. Leslie's money has gone farther per dollar than on any other job in my district.

I arrived at Bandelier National Monument at noon of the 18th. The work there is progressing satisfactorily as usual. The trails under Foreman Sholly will soon be completed as far as can be reached from the main camp. The road is practically completed. The fencing of the detached section under Foreman Eden was just being started. The small crew on the Ranger's residence under Foreman Rogers was pointing up the masonry. The doors and windows were yet to be hung in the cabins. The Forester was cleaning up the fire hazards on the valley floor.

I left Bandelier on the morning of the 20th and visited State Highway Engineer Buck Macy, who promised materials for drainage on the road between the detached section and the Monument. This drainage will not be placed at this time because project No. 9 on the ECW program has been disapproved. Mr. Macy also promised to construct the half-mile of road between the White Sands entrance road which we constructed this spring and SR176C, now being advertised for construction.

Arriving at Douglas the following day, I waited over night to meet Chief Engineer Kittredge and drove him to Chiricahua to inspect the progress being made for the Labor Day Celebration. I left Chiricahua on the 25th, arriving at Southwestern Monuments headquarters that same day, remaining a couple of days to clean up my mail. I arrived back at Chiricahua on the 28th and remained until after the Celebration.

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S U P P L E M E N T

In this section we hope to include observations, results of studies made by various members of the Southwestern Monuments, and other material of general interest. We want this section to be something of an index of what we are thinking about from time to time as we go about the various duties connected with our jobs. Following is an account by Ranger Charlie R. Steen of a recent visit to Tuzigoot Museum.

- - -

I am still at Montezuma's Castle. A recent visit to the Tuzigoot Museum at Clarkdale has called up a desire to express an opinion on the arrangement of museums for the general public.

The Tuzigoot Museum is perhaps the best arranged small museum I have seen. The first impression one receives as he enters the door is one of space and neatness. Three rows of glass topped tables cover about two-thirds of the floor space of a large store-room. The exhibits are not crowded--a most important feature--each table contains a few articles tastefully arranged, with legible cards explaining their uses. There is no mixing of artifacts, the pottery is in one section, the stone implements in another, and so on. One may walk from table to table and receive a clean-cut impression of the several crafts of the aborigines of the Verde Valley. The descriptive cards, however, are in several instances confusingly worded and the many photographs lose much of their value by not being labelled.

The average man who knows little of archaeology is able to absorb much more knowledge from a small exhibit well displayed than from a large one in which the artifacts are crowded and mixed. Glass-topped tables are, I believe, the best exhibit cases. The visitor may view the exhibit from all angles and his attention is focused on a single group at a time. When wall cases are used the attraction is diffused over several shelves and at best only two shelves receive much attention--the one on a level with a person's eyes and that one just below this level. It is against human nature for people to stoop or raise their eyes to see something unless they believe it is deliberately being kept out of sight.

Wherever possible in the Monuments, museums should be arranged with tables for cases. The Ranger conducting a party into the museum can then keep his group as a unit and have them gather about the tables to listen to his talk. Before a wall case, only a few can be accommodated, the attention of those who cannot see well is drawn elsewhere, these either miss certain exhibits entirely or must ask the Ranger to repeat himself.

I hope these remarks do a little good. They are far from being original but they may be timely as the subject of museums for the Monuments arises from time to time.

* * *

SUPPLEMENT

The following article sent in by Tom Charles gives general information on the White Sands that ought to be read by all in our Service.

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The White Sands, situated near Alamogordo, N. M., is the only large body of crystallized gypsum in the world. It comprises 176,000 acres of alabaster sand dunes from 10 to 60 feet high. It is of such dazzling whiteness with such curves and contours that it is esteemed a Monument of unusual splendor.

About one-third of the Sands were declared a National Monument in January, 1933 and in April, 1934, the Park Service had completed eight miles of plated road across and into the highest drifts of snow-white sand. This road leads out to within a mile or so of where the last trace of vegetation disappears, where there are no snakes or insects, where there is no sound and the silence bears down upon you and there is nothing but the snow-white sand below and the sky above. Then to the east is the hazy outline of the Sacramento range and to the west the rugged San Andres frown down upon you.

These sands are probably the most popular in the winter months for in the summer they reflect the heat and light so strongly that they are not comfortable in the middle of the day, but from sundown until an hour or so after sunup they are ideal. In the hottest nights when the surrounding country swelters in uncomfortable sleeping quarters, these sands are always cool.

The sands are located on state highway No. 3, between federal highway 70 at Alamogordo and federal highway 80 at Las Cruces. No. 3 is a federal aid road, hard surfaced, and makes the Sands available in all kinds of weather. The National Park road into the center of the Sands is eight miles long and makes the most attractive part accessible.

The accepted theory of the Sands' origin is that they are carried to this spot in solution and when the water evaporates it leaves these crystals of pure gypsum on the top of the ground, the crystals are then piled in drifts or wind blown dunes with most fantastic shapes and curves. Every form of life common to the surrounding country is found in the edges of the Sand. As one goes farther out into the area, the forms of life become unusual. White lizards dart here and there, many of the insects are extremely light in color and the ordinary field mouse is as white as snow. Cottonwood trees grow with 90% of their top under a sand dune, yucca climb to the top of the tallest dune and the stem, covered with the drifting sand, is sometimes 25 to 30 feet long. Many unusual things exist, even the lakes formed by rainfall, turn red at certain seasons of the year.

NOTES ON RANGER SERVICE
AT
CASA GRANDE NATIONAL MONUMENT
August, 1934

We were somewhat short-handed during August, and inspection of the time clock records assumed the aspect of experiment rather than complete study. Nevertheless, our dickering with the little yellow sheets of paper developed several interesting conclusions.

In two previous reports graphs were prepared showing (1) average length of complete trips, (2) number of parties starting at the various hours of the day, (3) average length of ruins trips, and (4) average length of museum trips. These graphs were very inconsistent, to say the least. They showed little possible correlation between June and July.

So for the first two weeks of August a graph was prepared showing the relation between percentage of total parties started at various hours of the day, and percentage of total time used for those parties. The same thing was done for the latter two weeks of the month. Both graphs appear below.

The interesting thing about these two graphs is that they also do not correlate--proving that we are not getting anywhere by working with only a small number of cases. It is becoming more and more evident that we shall have to wait until we have data on about 1,000 trips. Then graphs will really mean something, and we shall have a representative sampling of the summer tourist situation. In another week we shall have reached the 1,000 mark, and hope to have some interesting material for next month's report.

Conclusions for the first two weeks of the month would be:

(a) Between 8:00 and 9:00 a.m. we were giving a lot of time to comparatively few parties. (This is not true for the second graph. The lines follow each other closely.)

(b) Between 11 and noon we were handling a small percentage of parties, and we were giving them a little less time. (This is not true for the second graph--we handled a comparatively great number of parties between 11 and noon, and the time holds up well. There is a "valley" between 9 and 10, however.)

(c) Between 3 and 4 we received the largest percentage of parties, and they took less time. (But the second graph shows a "peak" between 2 and 3, while between 3 and 4 we gave relatively more time per party.)

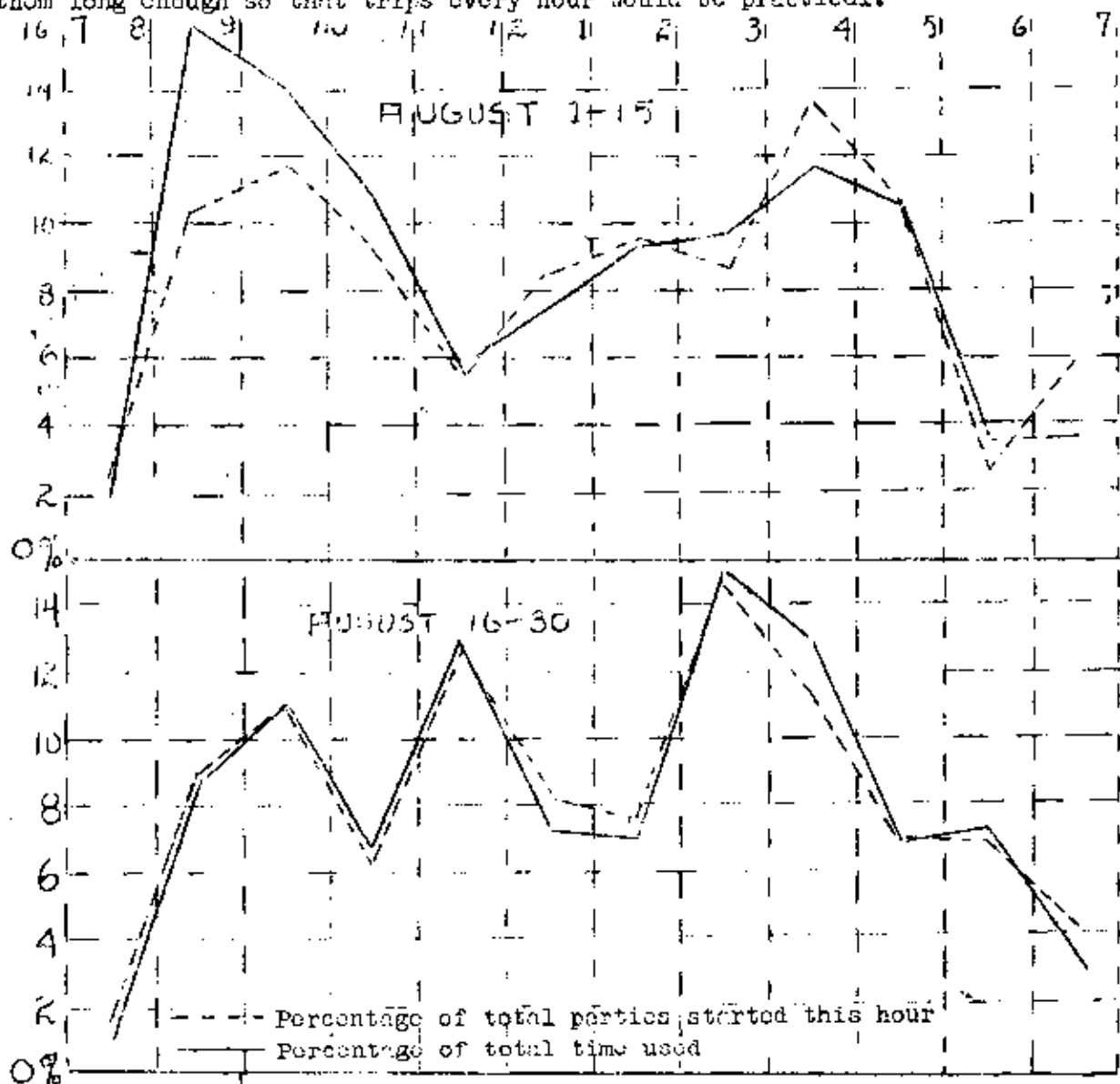
It is very clear, then, that these two graphs are not worth the paper on which they are printed. If the latter two weeks had duplicated the results of the first two, we would have had something on which to work, but it didn't happen that way. Consequently, we feel that we shall have to work with great quantities of data, and that such month-by-month statistics are rather worthless.

The most important bit of information for the month popped out of a chart which the Boss prepared showing the start, finish, and overlap of trips for each day. Until this piece of work was done it had been the

fond hope of several in the office that we could cut down useless work a great deal by running trips on the half hour.

But the chart showed that if we had run trips on the half hour we would have cut the number of trips from 302 to 272---a saving of a mere 10 percent, which is far from worthwhile. Moreover, each party would have had to wait an average of 7.55 minutes, or a total of 2,282 minutes. In other words, we make the public wait around more than a total of 38 hours to save ourselves a little more than 28 hours of work. If such a system were instituted, the probable result would be that our 28 hours of saved time would be spent in trying to pacify irate visitors forced to wait from one minute to 20 minutes per party.

Obviously, the solution does not lie in trips at stated half hour intervals. Apparently we will continue to run over to the ruins every time anyone drives up---until we get a comfortable, interesting, coal museum lobby where people can sit and enjoy themselves. Then perhaps we can hold them long enough so that trips every hour would be practical.



We are entering here a letter from Milton Wetherill who is a gap-filler at about 1/2 salary, or less, at Navajo National Monument until a solution for permanent protection at that Monument can be found.

This letter of Milton's is to Frank Pinkley, attention Bob Rose; and here I might say that if everybody in Southwestern Monuments service did as "much thinking per dollar salary paid them" as Milton is doing, there would be no question about whether or not we were handling our jobs successfully. The next paragraph is Milton speaking:

--
"Thinking that perhaps you might be interested in some of the things I am attempting to do along Park Service lines, aside from the regular duties of guard and caretaker of the Betatakin and Keet Seel ruins, I am noting them down for your attention:

First: - I am making myself familiar with the published material on these ruins in order that I might be in a better position to answer the numerous questions asked by visitors. This not only embraces the above ruins under my immediate protection but also the whole Tsogio region. You are aware that I have a great deal of practical knowledge of archeological field methods and artifacts also.

Second:- I am carefully making a study of the geological formations of the area and collecting formation specimens, to be the nucleus of a future museum collection at these ruins. This study is also to aid me in giving accurate information to visitors in so far as I am able to do so.

Third: - Being familiar with the birds and animals of this region, I am establishing record data on them. These data, also to form the basis for future museum records and go to the use of the Park Naturalist of Monuments. On my trail trips and duty about the Monument when and wherever a dead specimen is found, I make a study skin of it and send it to the Museum of Northern Arizona for identification where it may be found in their collection.

Fourth:- I am constantly on the lookout for botanical specimens and am making a check list of the trees, shrubs, flowers, grasses, cacti, etc., that come under my observation. Herbarium specimens are deposited with Mr. John Wetherill at Kayenta, where at present he has his rather complete collection available for students.

I would appreciate your assistance in whatever way possible toward carrying on the work carefully and faithfully, and believe you agree that what I am doing outside my regular line of work will be of value to the National Park Service, and to any future museum that may be established here for the service of the public.

MILTON WETHERILL, CONTD:

You realize, of course, that all the material I need for carrying on this work, I have furnished myself. There are items needed which at present I am unable to purchase and if in any way you can secure them on loan or gift for me it would be of great help. As an example, I have been licensed to establish a bird banding station in this region for the Biological Survey. They have supplied me with the necessary bands and now I am in need of bird traps. They are rather expensive for me to purchase and I wonder if in any way your office could secure one of these traps for me. I am also in need of chemicals, such as powdered arsenic, formaldehyde, and cyanide for collecting bottles. Would it be possible for you to secure for me several hundred 3 x 5 ruled library cards for cataloging and record purposes?

Again, anything you can do to further the voluntary work I am undertaking will be greatly appreciated. Very truly yours, Milton Wetherill".

The above might well be adopted as excellent procedure for others in the field trying to determine the natural history and archeology present in their particular localities. Some attempts will be made to secure the supplies Milton asks for to continue these studies.

PROPOSED ITEMS FOR BANDELIER MUSEUM

While we are on the subject of what the men in the field are thinking about, here's a report by Custodian Earl Jackson of Bandelier on the proposed museum there. This letter is in reply to a letter Bob Rose wrote to Earl in which two questions were asked: (1) What are the questions which Bandelier exhibits should answer?; and (2) Could practical suggestions be formulated now as to exhibits rooms arrangement? Earl is answering these questions with a background of training for his M.A. degree in Archeology and considerable practical ranger and field experience. The tentative plan follows:

"Dear Bob:

"Received your letter day before yesterday and was disappointed to learn you could not be here soon. Louis Shellbach was in, with lots of pregnant ideas, and we could have figured out a lot. However, will hope for you this month and in the meantime I am sending in a tentative museum arrangement outline, including the dozen pertinent visitor questions which you asked for. Here goes:

Questions which the Bandelier Museum should Answer:

1. Who were these people?
2. Where did they come from, and when?
3. When did they leave, and why? Any historic contacts?
4. What kind of people were they? Were they pygmies?
5. Where are they now? Are the modern Indians of the region descended from them?

BANDELIER MUSEUM, CONTD:

6. Did the inhabitants have enemies? If so, who were they?
7. Do we know anything about the religious life of the inhabitants?
What tribal organization did they have? Why did they use kivas?
8. How did the people make a living? Were they pastoral, nomadic, or agricultural? What did they eat?
9. What were their chief cultural developments? (Especially those developments which would distinguish them from other Indians? How did they make the famous Pecos Glaze Pottery?
10. How did they build their houses? Why were holes dug into the cliff to live in?
11. What is dendro-chronology? What are the various methods used for dating ancient pueblos and cliff dwellings and other ancient dwellings?
12. Do these ruins compare in extent, date, and culture with Chaco Canyon, Mesa Verde, and other well known sites?

That's just a dozen questions; I could write a million, but believe what is written here covers the idea you are getting at. On the following page is an attempt at a museum arrangement projected upon Shellbach's ideas. After you have checked it, and added to or detracted from it, the outline should be sent on to Louis Shellbach.

A PROPOSED MUSEUM ARRANGEMENT FOR BANDELIER NATIONAL MONUMENT

The Museum and Administration Building will be one and the same structure. Leaving aside the administrative unit as another consideration, the museum should have five rooms, including the lobby. Aside from these rooms, there should be rooms for storage and a workroom.

The LOBBY will be the place for visitor entrance and registration. It should be fixed up comfortably as a place to sit and rest while waiting for the 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 the appreciation of the guided trip through the ruins which follows. After the guided trip is finished, the museum proper, with thorough explanations, would be in order. Of course, at no time will people be prohibited from strolling about through the museum, which will be sufficiently labeled and pictured to be self-explanatory.

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.

EARL JACKSON, CONT'D:

- c. A large picture of Community House, showing it in part as it was when inhabited.
- d. A large, colorful map of the Southwest, showing the various Parks and monuments of archeological interest as pictorial insets, with principal cities, roads, and distances designated.
- e. A large colored picture of the Upper Falls in Frijoles Canyon, which is a spot of great beauty, and will make visitors conscious of the merit of a walk down one of the Nature Trails.
- f. A large pictorial map of Old Santa Fe would not be out of order. On this, dates would be shown, and brief historical legends 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.

Suggestions for the First Museum Room:

"No artifacts will be shown in this room, if suggestion is adhered to. Here, rather, will be a complete, integrated, chronological picture and chart scheme of North American archeology and ethnology, leading toward the end to the specific Rio Grande area to be shown in the next room. 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 bottom would give a few of the principal anthropometric 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.

Bandelier Museum, Sontd:

- 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 archeologist has to do in uncovering a ruin; first showing the ruin, then showing the progressive stages of excavation, with detail of how the 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 to this display.

"I do not claim that the outline shows everything that might be necessary, but believe the suggestions made cover essentially the idea we should put forth. I hope this clicks with your ideas.

Suggestions for the Second Museum Room:

"This room will present a scheme of Rio Grande archeology, concentrating on Bandelier National Monument, and therein will be contained the artifact material which we find there. Only a representative collection should be shown; there is no use to show duplicates or triplicates, except on small articles, for they are not essential enough to warrant taking up the extra space.

- 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 Basketmaker 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. I: - 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, marauding 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.

EARL JACKSON, CONTD:

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 made in the Southwest, down to the latest historic, and showing where Frijolitan wares tie into the general achemo. 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 pre-historic Rio Grande ware obtainable, with the Frijolitan 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 in 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 seen in Sonora, Mexico.) 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 weaves employed, and any loom materials which might come to light should be illustrated as used. Any other objects which seem not 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. Shellbach 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 levels of soil, according to layers of occupation. This would give a good idea of what the archeologist sees when he is running a trench into a trash mound.

"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

BANDELIER MUSEUM, CONTD:

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.

Suggestions for the Third Museum Room:

"This will be a room of ethnology, and 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, Acama, Santa Clara, San Ildefonso, etc. Photographs of the different tribes of people 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 adequately convey 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 with 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.

"As you can see, I have no completed plan of display for the Ethnology room, but I have a firm conviction that it should be an integral part of our museum; the ideal museum would have it, that we know.

Suggestions for the Fourth Museum Room:

"This room would combine displays of the geology, the flora, and the fauna of the region about Bandelier.

"An ideal center display would be a plaster model showing a cross-section of the geological formations between the Valle Grande, or great

EARL JACKSON, CONTD:

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.

- a. Labeled specimens of all the volcanic rocks in this section should be shown, and any sedimentary rocks that might be found.
- b. One geologic chart on the wall would give the geological story of the Pajarito Plateau and the Jemez Mountains; This story, though but partially known, is fascinating.
- c. Bird and animal life can be shown partly by pictures, partly by stuffed specimens of the smaller creatures; any wild creatures killed accidentally here can be saved and stuffed. Insects can be saved by paraffining the specimens and mounting in flat cases. Lizards and the like can be preserved in jars.
- d. The multitude of plant forms can be shown by preserved specimens of twigs of the larger ones, and by complete examples of the smaller ones.

"Because of my ignorance of flora and fauna at present in regard to means of display and preparation, I cannot give a detailed idea of this project, but believe that you will see the interesting possibilities involved.

Store Room:

"A storage room is needed for extra museum material and for material which is not ready for preparation. The material could be so arranged here that students might have access for study and research.

Laboratory:

"A small laboratory is very essential. Here will be done all museum preparation, patching, labeling, etc. You are thoroughly familiar with such needs.

"All in all, you will find a number of things in this outline incomplete; but if you agree with me on the essentials, I will feel very happy; if you disagree, I won't be hurt, for I will know that a more experienced reasoning than mine has changed the thing. Here's hoping that you can come up before this plan has to go in...." Sincerely, Earl Jackson".

All in all, the above outline is full of very fine ideas. A number of comments would be in order right here and will become a part of the tentative outline:

1. Would not a relief map of Frijoles Canyon and neighboring canyons showing trails and features to see, be a good thing in the LOBBY? People seem to be greatly interested in looking on a model and tracing out either where they are going on their next trail trip, or where they have just been. It would seem a good thing to have such a model in the Lobby. In the above outline such a relief model is suggested for room II, and the relief model for the Lobby might emphasize trail routes while the relief model in the Second Museum Room could stress all of the ruins groups in the whole region.
2. Bandelier National Monument is in a key position with reference to tourist travel into the Southwest. It is the first archeological monument or park contacted by people on a west bound trip. It is near Santa Fe which is in itself an attraction for high type of tourist travel; yet Bandelier is isolated enough to automatically sift out people with little or no interest and appreciation. Hence, in view of the key position occupied by Bandelier, a rather thorough museum development would seem justifiable. The above outline seems to carry out a sufficiently broad development.
3. The suggestion that the Lobby be a comfortable lounging place and be introductory in character, seems an especially fine one. It will cut down the necessary field trips daily. The less the number of trips a given ranger has to conduct daily, the longer he can make each trip, and also the more efficient he is in his leadership of the field group.
4. It seems that faunal habitat groups for the various life zones represented in the region as a whole, are the most effective agents of popular instruction that can be used. All in all, the question as to whether one room is enough for geology and natural history had better be given more thought. If further thought and plans reveal the need of another room, two in all, for geology and natural history, then it could be included in the plans at the start.

As our program of museum planning in the Southwest continues, we should try to answer these two questions: (1) What questions should the museum at your particular monument answer?; and (2) To what extent can you suggest arrangement of exhibits that should determine the number of rooms needed and the sequence of rooms? These questions seem well toward being fully answered in Earl's outline.

This about closes the Supplement stock for this month. I believe the letters and articles this month indicate some excellent thinking and planning on the part of the boys in the field.