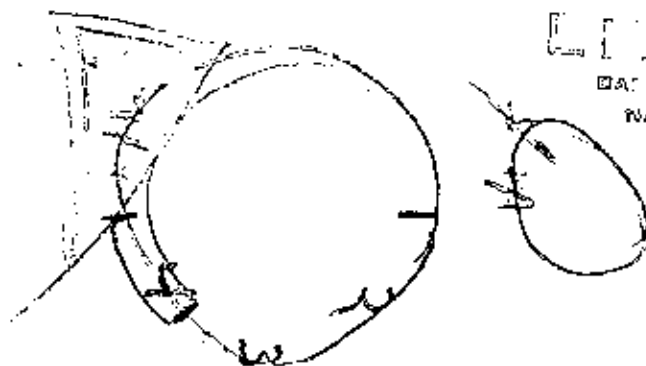


# SOUTHWESTERN MONUMENTS

MONTHLY REPORT  
JULY 1934



WHITE SANDS NATIONAL MONUMENT



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SOUTHWESTERN MONUMENTS

REPORT FOR JULY

1934

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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE  
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, August 1, 1934.

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

Dear Mr. Director:

Since the submission of the report for last month drouth conditions have been relieved in some sections of the Southwest. Range areas have had some relief as the result of recent rains. Waters impounded in the great reservoirs of the region are extremely low and will not be materially raised until there are heavy, rather general rains, lasting over considerable length of time.

Despite the considerable volume of business handled, we are again able to report that office work is current.

Preparations are under way for the Labor Day Celebration at Chiricahua National Monument. On the 7th and the 8th the Boss made a trip down there to go over proposed improvements being made by the CCC Camp at that Monument. During the month of August everything possible will be done in preparation for that event.

The Boss left again on the 23rd on a field trip that included Montezuma Castle, Walnut Canyon, Aztec Ruins, Chaco Canyon, El Morro and Canyon de Shelly national monuments. His report follows this introduction. Bob Rose was away on the 19th getting Ranger Charlie Steen started on his new post at Tonto.

Previous reports carried notice of the appointments of Earl Jackson as Custodian at Bandelier, and Gay Rogers and Alfred Peterson as rangers at Aztec Ruins and El Morro, respectively. Additional appointments have been made during the latter part of June and early July and they will now be listed:

1. Dale S. King has been appointed Junior Park Naturalist for Southwestern Monuments. Dale was archeologist in charge of excavations at Citadel during the recent CWA Program. He comes with an M. A. degree in Archeology from the University of Denver, experience in the field with Dr. Frank Roberts' party, and was Ranger Naturalist at Wayside in Grand Canyon National Park just prior to coming here.
2. Thomas C. Miller, better known as "Cal" Miller, began his new

position as Custodian of Chaco Canyon National Monument through transfer from the Petrified Forest National Monument. "Cal" has had wide experience in Park Service work and is taking over his new duties as an old hand. In the interim before Miller's appointment, Mr. J. L. Patterson of Farmington ably looked after things in the Chaco.

3. Chas. E. ("Charley") Powell has been on the job as Ranger in Charge at Chiricahua National Monument since early in the month. Chiricahua makes its debut among the individual reports this time. Charley comes to us with a background of experience in the Immigration Service in the Border Country. He is working out a system of handling the big problem of public contacts there.
4. James W. ("Jimmie") Brewer, another CWA archeologist from Wupatki, formerly Associate Archeologist of the Museum of Northern Arizona, is Ranger in Charge at Walnut Canyon until papers for the regular man at Walnut come through. Jimmie and new bride "Sally" will then go on their regular position at Wupatki. See Walnut Canyon's first report in this issue. We'll bet we owe some thanks to Sally for her help in writing it up.
5. Charlie R. Stoen is new Ranger in Charge at Tonto. We leave him here at the last for he had been at Tonto only 48 hours before he had to be borrowed a little while to fill an emergency at Montezuma Castle. Charlie has had wide field experience, has M. A. degree from Denver University, and was archeologist at Citadel under C.W.A.

A discussion of construction in Southwestern Monuments is well covered in the reports of Engineers Hamilton and Attwell. These reports will be found in the section immediately following the individual monuments(see index). However, to give a picture of what is going on in Southwestern Monuments as a whole, the more important projects under way will be listed:

1. ECW Camp in Bandelier:- busy constructing trails; remodeling ranger's quarters; and developing a campground.
2. FERA Crew Capulin: - constructing a boundary fence and working on completion of Rim and Grater trails
3. FERA Casa Grande: - Crew at work making adobes during the month, these to be used in constructing utility buildings later.
4. FWA Casa Grande: - New Employees Residence completed.
5. ECW Camp Chiricahua: - Constructing trails, parking area, phone lines; work during August preparing for Labor Day event.

6. PWA Aztec: - Restoration of Great Kiva; ruins repair.
7. Canyon de Chelly: - Maps, plans being made by engineers in preparation for trails construction and erosion control.
8. Gran Quivira: - Construction of entrance road, PWA.
9. Montezuma Castle : - PWA construction of equipment shed; Revetment 60% complete; excavations for sewer and septic tank; ruins trail ready to go soon as approval received.
10. Tumacacori: - PWA Crew construction fence; gates; parking area; FERA Crew on adobe boundary fence construction.
11. Wupatki: - Engineers making reconnaissance survey of entrance road. Included several ruins and is part of Sunset-Wupatki proposed loop.
12. Sunset Crater: - Engineers completed reconnaissance Survey of road to Monument during the month.

This is a fairly complete account of construction activities in the district for the month.

Travel:

Sharp increases over last year are noted especially at Bandelier and Montezuma. At the former place the ratio of this year to last is about 3-to-1. Aztec Ruins begins to approach some of the high numbers of former years. Tumacacori and Casa Grande summer travel is always considerably lighter than in the winter though the latter shows a gain over the corresponding period for last year.

Museum, Ranger, naturalist service:

We have just been checking over our Annual Report material and believe the following items will be of interest. In one column we'll list monuments having both museum and field trips and in the other, those having field trips only.

Museum and field

n

Aztec  
 Casa Grande  
 Chaco  
 Montezuma  
 Tumacacori  
 Gran Quivira  
 Pipe Spring (Old Fort itself, the museum)  
 Tonto

Field

Bandelier  
 Kl Morro  
 Walnut (with some  
 museum material  
 in ranger's residence.)  
 De Chelly (By operator)  
 Chiricahua  
 Capulin (frequently)  
 White Sands (" ")

We would be pleased to have additions or corrections from the field.

## The Month of the Boas.

The first part of the month was devoted to routine affairs at the desk. After twenty-two straight days of this, I took to the field on the 23rd. I drove to the Montezuma Castle National Monument that day by way of Prescott and Jerome, finding the roads in good shape but the country was rather dry even for central and southern Arizona.

I arrived at the Castle about five o'clock. Mr. Jackson had gone on his rest which he is taking under the doctor's orders and Frank Fish and Charlie Steen were holding things down in good shape. They reported a sharp increase of visitors over last year.

Foreman Harry Brown's jobs were making nice progress. They were up to the roof line with the garage and were laying a mighty pretty wall. The revetment work along the Creek bank was coming along in good condition and there is no question in my mind but that it will hold and will solve our problem. Description of the actual method occurs elsewhere, but I might say here that I was pleasantly surprised at the general looks of the revetment. I had no idea that it could be made to look so smooth and regular and that at such a little distance the heavy wire mesh would melt so completely into the general picture as not to be noticed.

In the C.W.A. work of last winter and spring the boys had leveled out some excavation debris which, being of a different color from the surrounding earth, left a white patch of ground. Harry Langley, our Landscape Architect, promptly called attention to this and I was pleased to note that Mr. Brown had hauled in enough surface dirt to completely cover and hide the white debris. Thus we have made our peace with Harry and when we get one or two other things taken care of we will be square with the board so far as he is concerned.

Leaving the Castle about nine o'clock the next morning I drove up through the Oak Creek Canyon and over to Flagstaff. I called to pay my respects to Dr. Colton and the boys in the Museum of Northern Arizona, all of whom are doing such good work in the archaeology of that region. I then went on out to Walnut Canyon, our newly acquired national monument, I found Jimmy Brewer holding the fort, and, much to my surprise, found the charming Sully Pierce, who was working on the C.W.A. job at the Montezuma Castle last winter, had now become Mrs. Brewer. Needless to say, I was happy to know she had signed on with us in this new capacity and we three had a very pleasant visit for some time that afternoon before I pushed off for points north and east.

After leaving Walnut Canyon and getting back on Highway 66, I tried to cut up across country to Wupatki. About 25 miles out the road faded out at a couple of sheep watering tanks and, as it was getting late, I wasted no further time but turned around and ran for Winslow where I could get all the comforts of the Harvey House.



On the 25th I went past the Petrified Forest and had a little visit with Superintendent Smith and then went on up to Gallup where I spent the afternoon and evening attending to some local affairs and remained for the night.

On the 26th I went out to Aztec National Monument. The repair gang, under the direction of Mr. Earl Morris, had made a great change in the Big Kiva since my last visit and that kiva is now the dominating feature of the ruins from almost every view. It is a very fine piece of work and I am sure is going to make a big impression on the visitors and will be a considerable addition to the trip through the ruins. The funds were not holding out as well as had been expected and some of the other work which had been planned will have to be left undone. This is unfortunate because it will probably be some time before we can get more money for this work at this Monument. They will not be able to get the reinforced concrete roofs over the present roofed kiva nor over several of the original ceilings, nor will they be able to cover the triangular corners around the open kivas as we had planned.

Visitors were running well at Aztec and were receiving the usual good service which is customary at that Monument despite the fact that the plaza of the ruins was pretty well torn up with the construction work which was going on, making it hard to handle parties through that part of the ruin.

On the 27th I went from Aztec down to the Chaco Canyon National Monument and back to Aztec. I had not gone into the Chaco directly from Gallup because of rumors of mud holes. My change of plan did not help me much because I managed to stick the car in a mud hole as I went in from the north.

Carrol Miller had arrived by way of transfer from the Petrified Forest a few days before and was settled down taking care of visitors and getting his tools and equipment straightened out.

The University of New Mexico and School of American Archaeology field expedition is at work in the Canyon. They are opening a new kiva in the plaza of Chetro Ketl, doing work in the east end of Chetro Ketl, working on the ruin at the foot of the cliff behind Chetro Ketl, and doing some work on Yellow House, which is down the Canyon below Pueblo del Arroyo. At Yellow House they are throwing the debris over the bank into the arroyo, planning thus to form a revetment which will stop cutting of the bank toward the ruin.

The revetment which was put in back of Pueblo del Arroyo under C.W.A. work last winter is beginning to fail. A nine foot head of water came down the wash a while back and undermined the rock facing causing a peeling action by which a part of the facing pitched forward and is lost in the bed of the stream. This does not mean that the whole job is a failure for it will last for several years yet. The revetment work just above the new well is also beginning to settle into the sandy bed of the wash,

and by another year will need some material added to it to bring the top of it up to the original grade. The more I monkey with these southwestern streams, the more respect I have for them. The Chaco Wash seems able to swallow any amount of rocks without the least sign of reaching a stable point.

After looking things over I went back up to Aztec for the night and the next day went from Aztec down to El Morro National Monument where I met Mr. Vogt and Alfred Peterson and went with them over their Monument.

The C.F.A. work done last winter at El Morro is standing up fine and deserves nothing but praise for the thorough way in which it was done. The fill of the big wash along the south side of the cliff has settled a little, as was to be expected, and Mr. Vogt is using some F.E.R.A. labor to fill up the holes and take care of the settled spots. The grass is getting a start and if we have no extra heavy storms this summer I think we will be safe against the fill washing out by next year.

We also examined many of the small dams which were put in the smaller washes and they seem to be serving their purpose in starting to fill the washes.

I went part way up to the top of the Rock over some of the new stairs at the south end of the Monument and found that they added greatly to the safety and comfort of the visitors.

That night I spent with Mr. and Mrs. Vogt and the next day, which happened to be Sunday, I went back through Gallup and out to Canyon de Chelly National Monument.

Mr. Grey is well started on the White House Trail. He and I looked it over from the top and the next morning I went up the Canyon and saw the rock gang working at the tunnel at the bottom. The Indian boys are going at the work with a will and are doing a good job of it. I saw the posts which had been cut and stacked near the Thunderbird ranch in preparation for the government planes which will be built to prevent further erosion of the lands in the Canyon.

Monday afternoon I left Canyon de Chelly and went down to the Petrified Forest for the night and Tuesday, the 31st, I drove from the Petrified Forest to Flagstaff at Casa Grande National Monument.

In general there is a great lack of water over this district. The summer rains have been too spotted thus far to be of much value and the stock is suffering for lack of water and feed pretty well all over the southwest. Water in the reservoirs is very low which gives great concern about the crops in the irrigated portions of the district.

The roads as a whole are good and visitors are using them; hotel and camp ground business is good to fair.

Frank Pinkley, Supt.

## REPORTS FROM THE MEN IN THE FIELD

### AZTEC RUINS NATIONAL MONUMENT

By Johnwill Faris, Custodian

Visitors for the month totaled 1,691. This is a decided increase compared to the 1,314 of last July. Every month so far has shown marked increases and we are looking forward to a much more normal year than that of 1932-33.

These visitors represented a very democratic class, the normal run of nearly every state with several foreign countries being represented. The run has been well handled by Mrs. Rogers, with the assistance on occasions of Mark Norton, who has proven himself a regular Park Service Ranger. I have not personally conducted very many parties; an occasional early or late party I sometimes catch but Gay and Mark have taken most of our visitors and from the reports we are getting, it might be well if I let them continue doing so.

Our Public Works program has been going full speed and at present we are somewhat worried as to being able to round it off properly. The Great Kiva is taking up the major portion of our crew and that, with the capping of an occasional wall, and protection of museum original ceilings, has about covered the scope of our work.

We find ourselves confronted with many problems on this new construction work. The roof of our Great Kiva has presented problems at almost every turn and we are still confronted with ample protection for this roof after we get it in place. We ran short of building stones and found it necessary to quarry some of our own stone and now find it necessary to haul rock about twenty miles. This rock takes less dressing and handles so much easier that our haul is cheaper than the shaping of each rock by our stone cutters. We are planning our work that, in case of emergency, we can centralize our entire effort on the kiva and complete the structure in preference to any other work.

We are still without any F. E. R. A., but were asked to submit a new program to the local director a few weeks ago. I don't know what will become of the request but we complied with their wishes by sending them copies of the correspondence we have had with F. E. R. A. officials. It may be possible to do some of our general work with this labor if it is allowed.

We called for bids for our new museum which were to be opened Monday, July 23rd and we had the pleasure of having Mr. Nickel of the San Francisco office with us at the opening of bids; the sad part of the whole ordeal being that not one bid was received. We immediately included drastic alternates as originally prepared by Mr. Nickel and redistributed these alternates to the bidders listed, and are calling for bids to be opened Monday, July 30th. While this does not allow any great amount of time for reconsideration, the alternates were of such nature that they will be very easily figured and will not require any great length of time to change.

SOUTHWESTERN MONUMENTS:

BIDDING FOR JULY

## AZTEC (Cont'd.)

The main criticism of the bids was the excessive cost and the alternate provided for the elimination of our museum room on the west, which should bring our bid down at least three thousand dollars.

We get pleasant reports through visitors of several of our neighboring parks and monuments and we wish to congratulate all our colleagues of the Service mentioned. It inspires our Monument to greater service when we hear of the splendid treatment our visitors receive at the hands of others.

\* \* \*

## BANDELIER NATIONAL MONUMENT

By Earl Jackson,  
Custodian

Visitors totalled 1,723, coming from 31 states and the District of Columbia. The six highest states, in order, were: New Mexico, 573; Texas, 267; Oklahoma, 149; California, 61; Colorado, 47; Kansas, 41. Figures for this month compare with 737 visitors for last July. No reason is advanced for our drop in travel as compared with June, but the drop may not be of any significance, as last month's estimate was made on the last ten days of registration, which was known to be heavy. However, the ratio is still holding at about 3 to 1 as compared with previous years.

Visitors seem again to be a very enthusiastic and interested bunch. A number of parties from boys' and girls' camps have been in, and all have appeared anxious to learn something and to comply with all regulations of the Monument.

The month has been exceedingly dry. On the Fourth we had a quarter-inch rain, and only the most tentative sprinkles have occurred since, until this afternoon, on which a very heavy rain fell. Rains in the district round about have been frequent in the last ten days, but roads have suffered little in the near vicinity, except for rough passage across the Rio Tesuque, near Pojoaque.

Despite the dry weather which prevailed most of the month, only three fires were reported. Of these, two were false alarms. The third was a snag on the north side of Capulin Canyon, nine miles by trail south of Frijoles Canyon. This fire was put out without difficulty by the C. C. C. fire crew.

On June 26th Walt Attwell came in from Capulin Mountain for a three day stay, during which time he got Huh Chase, new Camp Superintendent, organized on his duties. Walt left behind him the same vital air of enthusiasm which he always carries. We need a dose of his tonic humor every once in a while.

Landscape Architect "Chuck" Richey and Mrs. arrived on July 10 and left on Friday the unlucky thirteenth. With Messrs. Richey and Morse on the air, the Custodian's customary verbosity was left laggard, and his attendance at landscaping sessions was mainly in the role of one trying to listen intelligently. I thought Mr. Richey very reasonable and look forward to his next stop.

## BANDELIER (Cont'd.)

Our E. C. W. Forester, Jim Fulton, arrived on the 20th, and I think he is going to have plenty to do but believe he will be quite competent to handle the situation. His arrival brings up the sad conjecture of what we are to do for regular forestry aid after he and the C. C. C. fire crew are gone.

Mr. W. H. Wirt, Assistant Forester, Nation Park Service, arrived on the 23rd, having come directly here from the Mesa Verde fire. We have credited him with having brought the excellent rain which fell today. After an inspection of all buildings on the Monument area he commenced an inspection of the forested sections, with an eye toward elimination of fire hazards. Mr. Fulton and I accompanied him and today Mr. Frey went with us over the Forest Service trail from the Upper crossing of the Frijoles over the South Mesa north of Alamos Canyon. Needless to say, Mr. Wirt brought with him a host of good ideas, and is making what I think some very apt recommendations for fire control. This is our first meeting with Mr. Wirt, but we sincerely hope he can come in often, for his advices are needed.

On July 1, Mr. O. F. Arthur, Regional Forest Inspector from Albuquerque, visited us with his wife and family. We enjoyed his visit, and think he was favorably impressed by the interest of the place. He sent us some literature on Forestry which is proving helpful.

Gay Rogers dropped in for about an hour on the 17th, as exuberant as ever, and showing almost official dignity in her Park Service uniform. And, of course, it was just like Gay, being in a hurry, to be the only person this summer to run off the narrow bridge crossing the Rito between the parking area and the lodge. This is the bridge which is too wide for one car and too narrow for two cars, and would be more appropo as a bicycle bridge. Only two wheels of her car went off, and no damage was done. Come in again, Rogers.

We were visited on the 21st by Mr. K. M. Chapman, Curator of the Laboratory of Anthropology at Santa Fe, with a group of 30 University of New Mexico summer school students. I think they all got a kick out of their visit, and I received some very good information from Mr. Chapman. He is an old-timer in the country and made a study some years ago of the petroglyphs in the Long House group, and in 1918 directed the partial restoration of the Talus House just back of Tyuonyi.

Among other interested visitors for the month were the following:

Dr. J. J. Gable, Assistant Superintendent, Oklahoma State Hospital, and Mr. E. R. Kraettli, Secretary of the University of Oklahoma.

Mr. E. C. Lapping, Editor of the Detroit Times, and family, consisting of the Mrs. and three boys, came in on the Fourth and spent a week with us, staying at the lodge. They are splendid people, and I believe we sold the Monument to them. They assure us they are coming again next summer.

Mr. Oral J. Berry, Special Investigator under the Department of the Interior, visited for a few hours with a party of friends.

A group of boys from the Horace Mann School for Boys of New York, were in, under the leadership of Mr. John Dallavaux.

## BANDELIER (Cont'd.)

Mrs. S. T. Martin of the Cimarroncita Girls' Camp from Ute Park, New Mexico, has made three visits this month with groups of girls from the camp. Mrs. Martin consistently returns to Bendelier in the summer months with her parties, and we feel she is a good booster for the place.

Mr. Paul Shirley, internationally famous musician, visited us overnight, accompanied by his son, Paul. If genius means being well-versed in only one subject, he is not a genius, for he seems well-versed in every line of thought I could mention, including Archaeology.

Mr. A. E. Stedman, retired Vice-President of American Railway Express, visited Bendelier from Santa Fe one evening. He is one of Santa Fe's leading citizens who feels the road into the canyon is a distinct asset to the Monument.

The Vallecitos Camp for Boys sent eight very interested boys to see us, under the leadership of Mr. Lee Campbell. Mr. Campbell is an ardent booster for this section.

### Nature Notes:

A list of some of the tree species noted by Mr. Wirt on his inspection trip might be of interest. The predominating tree is the Western Yellow Pine. In addition are found the White Pine, Douglas Fir, White Fir, pinon pine, and Juniper. A few hoary specimens of the Alligator Juniper were seen.

Among the hardwoods were two kinds of Oak, aspen, maple, locust, box elder, cherry, alder. All of these species were found in Frijoles Canyon, and little variation is seen on the mesa except toward the east end of South Mesa, where practically everything else gives way to Yellow Pine, Juniper, and pinon pine.

The tent caterpillar is proving a decided worry in Frijoles Canyon this summer. Some of his species were seen last year, but not in the overwhelming numbers of the present date. After talking with Mr. Wirt, Mr. Fulton and I visited the Regional Forest Supervisor's office. All advice we received was to let the caterpillars alone, for they are known to come in two to three year periods, after which they completely disappear for a longer time. No trees will die from the worm, although a number will be completely defoliated.

Some pine beetle evidences have been noticed, but nothing widespread. Control is expected to begin as soon as the dormant period for these insects is reached.

Wild life is certainly here. I have seen only one deer in the canyon, and one huge buck on the rim, but have seen many tracks on the South Mesa.

Recently two of the C. C. C. boys on the trail to Capulin Canyon saw three black bears, one of which was a cub. The bears were not at all alarmed.

In the last ten days a surprising number of diamond-back rattlesnakes have made their appearance. Most of them are in a savage humor, for skin shedding will soon be upon them.

## BANDELIER (Cont'd.)

When a dog bites a man, it's no news; but when a man bites a dog—, What are we going to say when we see pet rabbit of George Frey's chasing a clumsy young pup all about the yard?

\* \* \*

## BANDELIER, LANDSCAPE REPORT

By Jared B. Morse, Ass't. L.S. Architect (ECW)

The month of July, here at Bandelier, has been extremely hot, but has hindered only the work on the Ruins Trail. No phase of the work has fallen below par.

ECW-7. Public Camp Ground, Project No. 2E, has occupied five hundred man days in grading and surfacing the road, quarrying rock, building fire places, outlining parking sites, and placing large tufa boulders for barriers. This project is near completion but will require building and placement of tables and some guard planting. Due to continual wear and the fire hazard it might be necessary to flag loosely around each camp fire.

Horse Trails-Project No. 14A. Three important trails are now under construction. 1. Ruins Trail. 2. Rio Grande River Trail, down the Rito. 3. Upper Canyon Trail, up the Rito.

About one mile of the Ruins trail is complete and in use. Two interesting flights of steps have been built where the trail crosses two deep washes. The steps are constructed of flat surface tufa. Five hundred and fifty man days have been spent on this trail.

A short circle trail is now underway; located directly above camp giving access to the reconstructed Telus House, Lookis Cave and interesting tent rock formations. Due to the elevation of the caves on the high telus slope the trail calls for the construction of several flights of steps both on the ascent and descent. Twenty men are working on this part of the Ruins Trail.

The Rio Grande River Trail is finished two miles down the Rito to the lower falls. The trail, now being worked on, descends from the top of the falls through a formation of large boulders and sandstone to the canyon floor below. This location will be more satisfactory than the old forest trail but will necessitate cutting in the cliff and building a high retaining wall for a switchback.

Four miles of the Upper Canyon Trail has been located and a mile has been constructed. This is an extension to the Ceremonial Cave Trail part of the Ruins Trail.

The entrance road, Project 13B, was completed July 13.

## BANDELIER, LANDSCAPE (Cont'd.)

The Custodian's Residence and Guest Cabin was finished July 20th. Some planting will be placed there this Fall.

Mr. Wirt, Ass't. Forester, National Park Service, arrived here July 23rd and after inspecting the Monument, proposes a truck trail which will give access to the South Mesa. This large forested area, according to him, should have a road which could be used for fire fighting and prevention.

\* \* \*

## CAPULIN MOUNTAIN NATIONAL MONUMENT

By Homer J. Farr, Custodian

### General:

I believe that this month has broken all records for visitors for this Monument. We have had over 6,000 visitors from practically every state in the Union. Our parking area has been so crowded many times that there was considerable difficulty in freeing the traffic jam, and we find that more than ninety-five per cent. drive over the road to the top while very few ever walk up the trail any more.

### Weather:

Our weather man certainly has not been good to us this summer as we have not had a rain since we can remember and the community is exceedingly dry. So far this is the driest season that we have ever had. Our road and trails are standing up well considering the weather and the traffic they have had.

### Improvements:

Our FERA fencing project is progressing nicely. We have our fence about three-fourths completed and have had many pleasant comments from tourists regarding our work. I hope our readers could understand what it means in building a fence over several miles of lava beds with some holes to dynamite and some to dig but very few to drive. The galvanized wire and steel galvanized posts are red and with the black lava background make a very beautiful fence. All of our corners and all stretch posts are round steel galvanized posts set in three feet of solid concrete. This is the hardest job I have tackled on this Monument; but I am happy to report that we are certainly getting it done.



## CAPULIN MOUNTAIN (Cont'd.)

### Business Callers:

Mr. and Mrs. Charles A. Richey of the Branch of Plans and Designs were here on the 20th and went over the Monument, thoroughly inspecting the parking area and the road and trails. Both are mighty genial but Mr. Richey, like all the other Park folk, was too busy to stay over night with the Custodian.

Sometime this month the Custodian received his year's salary from the Pinkley office for the enormous sum of \$10.45, which I might add was very much appreciated, but I want to say this: That also \$0 letter I received from the Boss which accompanied the check was worth far more than the check. To me this letter has a real intrinsic value, a cashable value, far more than mere money. Something that I can cash and still retain, unlike the cake you eat. This letter has soaked into me, but I still have it.

\* \* \*

### JUNIOR NATURALIST REPORT:\*- A "howdy" from Dale S. King.

"I reported for duty July 9th. Hilding Palmer in the following report is correct in saying that the ensuing time was spent in guiding visitors and in studying museum problems, but now is not the time to attempt any startling deductions from that study. It will probably be better for me to say, "Well-ar-uh, there seem to be many problems, and after I've been around for a while, then perhaps I'll be able to say something constructive."

"But we have started accumulating museum preparation materials, and have doped out some plans for exhibits with which we hope to make the museum more interesting. I am now working on a scale model of a Hohokam pit-house, and intend to spend spare moments in getting the pottery and other exhibits repaired, cleaned up, and put in ship-shape order.

"Between duties of teaching archeology to a brand new wife, and helping the selfsame wife become installed in a house, and expounding learnedly (?) to visitors, and sneaking off to the Boss and the other fellows to determine if what I said was even partly correct, I've had time to realize that I am going to like this job immensely. And a great part of that liking is due to the personnel of the Monuments. Even with my limited acquaintance, the Southwestern Monuments gang seem to be a swell lot.

"Hugh Miller said in his "howdy" letter that a Chief Clerk was supposed to be an emissary of the devil who specialized in weaving dark designs of red tape. I have heard that a Junior Naturalist is a Boy Scout who hunts bugs. It may be that is not correct, but I shall soon learn."

\*\*

Dale has just about arrived on one day and on deck for full time duty the next. He has just hanged his coat and hat on a peg and started right to work from the very beginning. Later reports will describe projects under way.

CASA GRANDE NATIONAL MONUMENT:

By Hilding F. Palmer, Custodian.

This month a total of 1163 people visited Casa Grande National Monument, were conducted on 255 guided trips through the ruins, and 233 lectures were given them in the museum. This is an increase in visitors of 219, or 23%, over July of 1933.

Thirty-six States were represented, the District of Columbia, Canada, Mexico, and Denmark. The majority of the visitors drove to the monument in automobiles, of which there were 324. We had a few visitors who came on foot. There were 173 people who visited the monument, but who did not visit the ruins or museum.

Sixty-three percent of the visitors were from within the State; eleven percent were from California; five percent from Texas, and three percent from Oklahoma.

There were 227 complete trips through both ruins and museum, each trip averaging 5.1 people.

Mean maximum temperature for the month was 106.61°F, mean minimum 75.44°F, and mean, 91.02°F. A maximum temperature of 114°F was reached on five days during the month. We had a total of .39 inch of rainfall during the month. There were 18 clear days, 6 partly cloudy days, and 7 cloudy days.

Analysis of Ranger service at Casa Grande National Monument is not included in this report, but appears in the Supplement, since it has practical application to all monuments in the system.

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Public Works Project FP 122.14

The Naturalist's Residence was completed during the month and is now occupied. It is an adobe residence, with walls two feet thick, steel sash and screens, two bedrooms, living room, kitchen and nook, bath and back porch. The contractor did an excellent job, but only made \$10.89 besides his wages.

~~This completes all of our Public Works Projects at this Monument.~~

An FERA program has been carried on all during the month. From eight to ten men have been furnished us by the local Welfare Board. They have completed the erection of a fence on the south and west boundaries, so that the Monument is now completely enclosed with a 45-inch woven wire fence erected on steel posts with two strands of barb wire on top. It will simplify protection of the natural features immensely.

The Engineering Division furnished a rodman for the laying out of this fence, who also supervised its erection. Photographs attached show that a good piece of work was done.

After this fence was completed, the crew was split in two parties, one of which made 6700 adobe brick 4 x 10 x 16 inches for the future construction of tool and implement sheds, and the other was used in trimming all the dead wood out of the trees on the Monument. This project will accomplish two things: first, it results in a decided improvement in appearance, and, second, it will furnish fire wood for the heating of employees' quarters during the winter.

Junior Park Naturalist King entered on duty during the month and while stationed at Headquarters has been assisting with visitors and making a study of museum problems. His report on his activities will be found in another section.

Assistant Landscape Architect Langley was here, and made a final inspection of the new quarters and gave them his approval. Unfortunately, I was not well that day, and was unable to be with him. I missed it a lot. The temperature was only slightly over a hundred that day, but Harry could not be induced to stay overnight, but hied on to Phoenix to an air-cooled room in the Adams Hotel. Harry stayed all night with us once last summer; remembering his experience that night, he tried to convince the BOPADS that the new house should have a screen porch, but was unsuccessful.

Everything at the Monument is in good shape, and the month has been satisfactory from every angle, with the exception of the weather, which has been hot and dry, with many dust storms.

\* \* \*

This has been rather a quiet month in the canyon with our visitors making up in interest and intelligence what may have been lacking in numbers. Our 384 visitors came from twenty-one states, Washington, D. C. and England. Many stayed over for one or two days, seeing our many points of interest and watching the excavation work now in progress. The archaeological bug has a way of getting under the skin and making almost everyone want to get hold of a shovel and see just what is under ground here.

The month of July is considered the rainy season in this region but with the exception of one or two light showers there was no rain until the 21st when .91 inch of water fell in a few hours. The arroyo measured a run-off nine feet in depth at the crest of the high water.

The maximum temperature for the season was reached on July 13th when the thermometer touched 98°. This showed the great variation of 52° from the minimum of 46° on July 6th.

The roads are in fair condition, but rather rough from the effect of the rains.

On July 10th, Mr. L. C. Mackel of Albuquerque, N. M., investigator for the Interior Department, accompanied the Acting Custodian on an inspection of railroad lands within the Monument.

Mr. R. E. Riggs and L. B. Miller, Associate Architects of the National Park Service, San Francisco, paid a short visit on the evening of July 4th.

July 7th we enjoyed an all day visit from Ernest Thompson Seton and a group of twenty-nine students from his College of Indian Wisdom located at Santa Fe, New Mexico.

Dr. E. L. Hewett in charge of the School of American Research, brought a class of students to the canyon in June and they have been engaged in excavating at Chetro Ketl and Kin Klitso or Yellow House. We have been watching this work with considerable interest. A kiva in the courtyard at Chetro Ketl is showing some very unusual features and the completion of this particular piece of work will be worth close observation.

Since the completion of the revetment in the wash below Pueblo del Arroyo we have all waited with some anxiety for high water to see how this work would stand up against the flood. Our nine feet of water last Saturday night was a fairly good try-out. About six feet of silt was deposited both above and below the revetment and may help to strengthen those points to some extent, but along the front where the main current strikes the sand was cut from beneath the rock facing allowing it to fall in several places. It was the plan of the Engineering Department to have this rock work enclosed in wire mesh but the curtailment of CWA funds prevented carrying out this plan. I believe that unless something of this kind is soon done we will be likely to lose all the work which has been done at this point.

The new Custodian, Mr. Carroll Miller, came in on the 23rd and has been very busy getting furniture unpacked and placed, meeting visitors and new neighbors and getting generally "shook down" and placed.

CHACO CANYON (Cont'd.)-Supplemental

By Carroll Miller,  
Custodian

I arrived at Chaco Canyon at six p. m. on July 23rd. Tuesday the 24th I spent most of the day unpacking and getting settled in our new home. However, I did cut loose long enough to play "Dude" and visit the Ruins with two parties that were conducted by Mr. J. L. Patterson, who has been employed in various capacities in Chaco since February. I find Mr. Patterson a very capable man. The visitors seemed to enjoy their trip and the services rendered by him. He gives explanations that are plain and dignified. I believe I made a good "Dude" if asking questions will qualify me.

Boss, I know I'm going to like this place. Although, to leave Petrified Forest was to me just like a kid leaving home. White Mountain and Mrs. Smith will long be remembered by my family and I. If you are half as good a Boss as White Mountain, I know you are all right.

\* \* \*

Custodian Carroll Miller has been a Ranger at Petrified Forest for several years and really needs no introduction to Southwestern Monuments. At the same time, we are giving Mr. Miller a most cordial welcome into Southwestern Monuments and we don't want to overlook expressing real appreciation for Mr. Patterson's services during the past several weeks. With "Pat" on the job there was a feeling that visitors and other Monument business would be faithfully looked after. To Carroll a real welcome, and to "Pat" our sincere thanks.

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CHIRICAHUA NATIONAL MONUMENT

By Charles E. Powell,  
Ranger in Charge

Note: Ranger Chas. E. Powell of Chiricahua National Monument makes his opening bow to the Southwestern Monuments Park Service family. He will be at Chiricahua for several months of this summer. From the tone of his opening, Ranger Charley seems to be disputing the enviable and jealously guarded position held by another certain "Sandy" haired youngster of the family. Some proud parent has a job on hand to keep this Chiricahua youngster out of just claim as the youngest in the Southwest.

Blushing, with a newly washed dress of bright green, and a fleecy cap of clouds on Sugar Loaf, the new baby, Chiricahua, wishes to salute the rest of the family. As a member of the Park family, Chiricahua is twenty-one days old today. Is some other baby feeling said, with its little nose out of joint?

The C. C. C. Camp's C. C. C. contest (just a minute!) The Chiricahua Camera Club's contest of the Civilian Conservation Corps, (does that explain it?), was won by Armando Yslas. He traded in the carton of Chesterfields for other wares at the Camp Exchange, as he doesn't smoke. He had some competition, as three of the judges, Lieut. Woody, Lieut. Turner, and Lieut. Vertin each selected different pictures as winners, but our educational advisor, Mr. Merrill decided with Dr. Vertin. (I am enclosing both the winning picture and the film.)

## CHIRICAHUA NATIONAL MONUMENT (Cont'd.)

Each week end a competent guide is selected from the C. C. C. personnel, and about fifty of the C. C. C. boys are piloted around the monument. They take pictures and also intend to qualify as guides, in case of need.

A beginner at writing reports of this kind, I am finding the task is one of condensing, rather than otherwise, as there is a lot that I would like to include, which to me appears very interesting and important, and which I have included in the narrative recited to visitors, but now that I am talking to an audience of experts, I find myself wondering if the editor of the consolidated report will not have to blue pencil mine.

I would like to tell the story of Cochise, succeeded by Geronimo, (Chiricahua Indians, those) and how Big-foot Massai stole a horse from a rancher named Stafford here on the site of the CCC camp, while he was returning to the reservation to obtain medical attention for the birth of his son and heir. I'll recite that one the first time we go to Massai point.

Then I might give the History of the Monument, and try to explain why this "Wonderland of Rock" is not all contained in the area set apart as a monument. Such subjects have been covered by others, it is supposed, better than I can explain, so I will confine my report to things I know.

Two CCC boys working staggered shifts during the week, and two more on week-ends, have been checking traffic and catching car numbers for the past ten days. We have an old tent which we call "the rag" by the side of the road at the entrance to the monument, and there visitors who will stop are registered, and those who will not stop are noted, the number in the car recorded, and the car number taken.

So far, we have been able to register about half the number of visitors. The rest of them have driven past without stopping. We have learned that more people drive up Pinery canyon and see the back of the monument than come to the front door, or miss the monument entirely because they are guided by someone who has been up that way in the past and does not know about the new work which has been done. We figure that, since we have 228 names on our register in ten days, in thirty days we should have had 684. If all had registered, we would have for thirty days, 1,368 visitors registered. Next month, with our present system, we should have about 2,000 names on our register, at that rate, as we are getting a better routine worked out. There will be more when we have our road complete, and the public becomes better informed.

Most of the car numbers taken were from Bisbee and Douglas, with Tucson and Phoenix next in order, with scattering cars from other parts of the state, California, New Mexico, Texas, Oklahoma, Colorado and New York licences were also checked. We will know more about travel next month.

### Prominent Visitors:

18

Park Service, eight  
Military, five  
Local, seven

## CHIRICAHUA NATIONAL MONUMENT (Cont'd.)

Park Service visitors included Supt. Pinkley, Engineer Attwell, L.S. Architect Langley, Asst. Engineers Ray and Harris, and Mesdames Attwell and Palmer.

Military visitors were Mr. Reddick (personal representative of Mr. Fechner, Director of the CCC), Col. Gordon, Col. Cox, and Capt. Fickett, all of whom were here to determine whether or not this camp is among the district prize winners, and finding that it is, they are now trying to decide the exact status of the camp in the Corps Area.

Local prominent visitors were Dr. E. D. Bell, Economic Zoologist, U. of A. Tucson. (Took the Ranger bug hunting.) Mr. Joe Kobey, Secretary of the Bisbee Chamber of Commerce. Mr. D. F. Souers, Bisbee, (Boy Scouts, Y. M. C. A.) Mr. E. D. Beverly, wife and daughter, Elva, with Miss Ethel Pearl Isaacs. (See clipping from the Willcox Range News.)

Jack Terrill is putting an original idea into execution. While on shift checking traffic, he has worked with great patience gathering rock shaped like some of the balanced rock for which this monument is famous, and has reproduced a part of the monument in miniature. He uses these miniatures to illustrate his description of the features to be seen on various trails, while he is describing the monument to visitors.

We are discussing a large sign, with the legend, "When you look, STOP." This to be placed on Massai point. I told Mrs. Palmer that, and Mr. Attwell thought it good advice for all. You see, you must watch your step, and you can't see much while looking where you are going. Dick Sims took a tumble today.

May I mention some curiosities found no place else but at Chiricahua? I want to mention three. (1) Dick's coffee. Brewed at the Tech-mess only, and a nectar fit for the Gods. (2) Mr. Hobbs' rain tree. Had to have it explained and then had to see it, before believing. Dr. Bell can explain it, scientifically. (3) This one is credited to Mr. H. O. Hammond, Supt. of CCC. He can tell about the Rhyolite woodpecker, who drilled all the holes in these rocks in search of rock-worms. Shall I say that I have not seen the latter described bird?

The upper road has been impassable for the last two days, because of a slide which blocked the large cut above Bonita Park, but a steam shovel was brought down and the way is now open. The road is being bladed now and will be in fine shape for Sunday visitors, if the rain, which has been falling for the past three days, does not keep them away. We had to hunt foot logs yesterday to get to camp, across Bonita creek.

We need some standard "NO HUNTING" signs. The deer are quite tame and we are putting out salt for them near the Ranger station. We are also trying to have a large netate hauled to the Ranger station to be used as a bird bath.

Please pardon this typing. This machine got wet, and is senile and Rheumatic. After I have had more practice, I hope to write as good reports as those in the April, May and June editions, which I have read with much interest.

## CHIRICAHUA NATIONAL MONUMENT (Cont'd.)

The CCC boys are still claiming an interest in the Monument and are chowing such enthusiasm that another contest is being planned. We are undecided as to whether to start them collecting tree specimens, or names of animals to be found, or to make the next contest one of scenery. We will possibly combine the three. Such energy and enthusiasm is too useful to waste, I think.

Mr. Riggs is progressing quite well with his trail up Rhyolite canyon and Mr. Hobbs has fifteen feet of water in the well. The contractor, Mr. Raul, is working on the last part of the road at Massai point.

I will try to have my report in better shape next month.

\* \* \*

## EL MORRO NATIONAL MONUMENT

By E. Z. Vogt, Custodian

This has been a long hard month for the people of this region and a rather busy one right on the Monument. Owing to the pressure for water for stock and domestic use among the settlers who have taken up homesteads within 25 miles of our Monument, a petition was gotten up and sent to various Representatives, Senators, to the Governor, to Mr. Pinkley and one to myself, as Custodian, praying for immediate permission to have water again from our reservoir in the old Spanish Camp Cove.

We were conscious of the difficulty about getting water but since we had made the great fill in the valley coming down from the cove during the CWA program we were unable to make the water available to the use of the ranchers without them driving their trucks and water wagons over the oats, clover and grain we had planted as a ground cover where the great arroyo had been. We knew that your desire was not to in any way damage that area, or to do anything which might lead to further erosion. We also knew Mr. Richey's ideas about conservation at this important spot between the Ranger's cabin and the inscriptions. We were therefore up a stump as to how to accommodate the neighbors who were so badly pressed for water without damaging our work.

I was already at work trying to figure out a solution by bringing the water down over the filled and planted area when the Director wired me on June 27th, suggesting that since the Governor had wired to him in the interest of the people, that perhaps we could share the water with them. Within a few hours after Mr. Cammerer's message came, I had secured the loan of 300 feet of 1-inch pipe and 100 feet of hose from Mr. G. A. Trotter of the Zuni Indian Agency on our west. Hiring a truck and some help for installation on my own responsibility, we were able to syphon the water down out of the reservoir to a point about 100 feet below the Ranger's cabin. Thus the ranchmen were able to drive and fill their iron and wooden water barrels and haul it off to their ranches. The first few days not many came but after it was learned that the water was available they came at the rate of two to six wagons or trucks per day. Sometimes sun-bonnetted women came in place of the men who were busy with hoes, cultivators, and



EL MORRO NATIONAL MONUMENT (Cont'l.)

go-devils trying to maintain a mulch on their fast-drying top soil in which their beans and corn were planted.

Both Ranger Peterson and I have stood our ground on the principle of furnishing water when it was greatly needed in an emergency but not as a steady thing. No permanent privilege has been mentioned by us and it is my belief that with the F.E.R.A. now having decided to drill three wells for the people in this region that there will be no demand beyond this year for the use of this water by the settlers.

I was thankful for the very effective letter which you got out under date of June 27th addressed to the "Friends and Neighbors of El Morro", covering the subject of water usage very well and asking their cooperation in preserving our soil. I distributed the copies of this letter to all the people living within 30 miles of the Monument, especially to those who had signed the petition.

We have had nothing but the finest cooperation from the people who come and go with the water and are likely to keep the same up until water is secured nearer their ranches or until general rains fill the surface tanks and water holes nearer home.

The summer rains are not coming along as they should and crops will be short. Perhaps the grass will make but a third of the normal growth. The pinch of poverty is going to be felt by the people who depend on what they raise on their dry farms. The pangs of hunger are liable to draw up the sheep, cattle, and horses by spring with resultant loss unless rain starts soon and in dead earnest.

The Zuni Indians persist in their feather planting, tesques, fasting and dances, while even the Navajos have been holding some ceremonial jack-rabbit hunts in which hundreds of jacks are slain as an effort to bring rain. My son, Evon, and his house guest, Charles Ripley, of Chicago, accidentally ran into a great crowd of Navajos one day, shouting and driving rabbits on horse back into an ever-decreasing circle and joined in the hunt. As it has not rained, I am trying to get the Navajos to hold another hunt.

Our F.E.R.A. program got started the first of the month with an allowance of 30 men and 4 teams. In order to keep the work going with no cessation in progress despite the changing crews of men every six days, we cut the force down to 15 men and 2 teams. Then at the employment office in Grants they budgeted our force to fewer men so we rarely run over 2 teams and 10 men.

With these we have hauled a great lot of gravel for trail gravelling, have worked approach roads, have leveled off places and made fill and clean-ups near

## EL MORRO NATIONAL MONUMENT (Cont'd.)

our entrance, and carried on the trail work over the top of the cliff from ruin to ruin. In moving gravel up the trail we find that it is best done by packing 200 pounds on horses using pack saddles and double gunny sacks as containers. This we dump on the trail and then spread it with a garden rake.

Quite a few new steps have been carved at needed places over the cliffs while stone monuments 18 inches high are being placed as trail markers every 100 feet or so along the top of the cliff where the lone visitor who climbs by himself may get lost especially in a storm or when snow covers the steps and cuts made in the rocks.

That portion of the trail which follows along that clay deposit at the foot of the south ruin is being covered by gravel which we had hauled up the mesa and dumped just outside of our fence. Shoveling it through the woven wire, we managed to get it on the inside. With great difficulty we got a horse up on top-- a trip analogous to the Glass Rocks en route to Rainbow Bridge. With the horse we packed the gravel several hundred yards and dumped it on the trail. This is laborious work but by keeping at it good progress is shown in a day of eight hours length.

A crew was placed in the Box Canyon for two days to make a road up the canyon, so that those visitors who wanted to go up there to camp could do so. Care was taken to make the road passable but not too good so that any one who ventured there could feel that they had penetrated the real old-time jungle of the west. A hewn ladder of oak poles was built to afford entrance to a cave of recent discovery where there are some pictographs and an old hand and foot trail leading from the cave which was once a water catchment area for prehistoric mesa dwellers.

The crew we had in the Box Canyon also cleared the Indian Well we discovered last March and dug out and walked under the CTA program. We finally have our roof on the blacksmith shop and hope to secure enough lumber to finish the large garage door and the partition. When this is done, I intend to set up our F.E.R.A. workers tool house and blacksmith shop in the new building which measures 18 by 30 feet. Thru Austin Ladd of the ECW program of the Eastern Navajo Agency, I was able to get the very much appreciated loan of a portable blacksmith shop.

Don Juan A. Garcia of Albuquerque, N. M., stopped with his son one day and recorded in the visitor's register the following interesting entry written in Spanish, which I have translated as follows:

"On the 30th of June, 1934, here was Juan A. Garcia and his youngest son, Juan A. Garcia, Jr.

Juan Garcia passed here with his family to settle Atarque in the year of 1882. At that time there were no white people living between San Rafael, N. M. and Sta. Johns, Arizona.

Accompanying Juan Garcia were his brothers Jose Leon Garcia, Patrio Garcia, Tiburcio Garcia, Jose Garcia and David Garcia. Also accompanying him was his mother Celcilia Garcia, widow of Lorenzo Garcia, who was killed by Geronimo

## EL MORRO NATIONAL MONUMENT (Cont'd.)

in the year of 1881 on the bench of the Soboya." (Signed) Juan Garcia, 515 Conl Ave., Albuquerque and Juan L. Garcia, Jr. 521 S. 6th St., Albuquerque.

To me this was a most interesting record in our book, since it showed the absence of settlement over a country 150 miles wide except for Navajos and the dangerous Apaches, who killed Garcia's father the year before the family passed here to settle the Spanish-American village of Atarque, 35 miles Southwest, where we now have our sheep ranch headquarters and store.

The Garcia family has long been prominent in live stock raising and politics and very probably are descendants of Juan Garcia who carved his name on the cliff in 1636 and perhaps also of Juan Garcia de La Rivas, who noted his political activity in 1716 when he was elected high sheriff on the first ballot in the city of Santa Fe.

Of the brothers mentioned above Tiburcio, Jose Leon and David are still living at Atarque. I took photographs of Mr. Garcia, who looks very young for his 85 years.

The Tourquoise Trail Expedition headed by Mrs. Howie of Indianapolis, with eight very fine young girls, rolled in and camped one afternoon and half the next day. Their camp outfit, their intinery, their cars were as good as could be made. They were most appreciative and enjoyed hugely the historical values and archaeological records of the Monument. The tortillas I had one of the F.E.R.A. workers make for them in a Dutch oven over the coals were new to them. At night Mr. Peterson made a camp fire talk to them under the shadow of the great pines.

My oldest daughter, Barbara, 13, was invited to join their tour, so she left with them on the 20th to take in their 1,500 mile trip to the Grand Canyon North Rim, Bryce and Zion and other points of interest, a rare privilege for her.

Antioch College had an aggregation here which took in every thing on our Monument, but seemed very much in a rush in their mode of travel though they were also equipped to camp where night time struck them.

Other persons who visited us during the month were Congressman Albert Carter and his lovely wife of Oakland, California, Frederick Vreeland and his interested and interesting family of Montclair, N. J. Colonel Mason, U. S. Army, Washington, D. C. L.B. Miller and R. E. Riggs of the Park Service Force in San Francisco.

The assistance of Alfred Peterson, Ranger, in keeping the time of the F.E.R.A. workers and helping with the detail work in addition to his steady duty of showing people around the Monument is much appreciated.

\* \* \*

## EL MORRO (SUPPLEMENTAL)

By Ranger Alfred Peterson

The hour is 8:40 P. M. and while my supper is cooking at the end of a busy day, I shall endeavor to make use of the first spare moment I have had to start my monthly report.

## EL MORRO (CONT'D.)

Among the important events of this day was the arrival of the Department of the Interior Soil Erosion Service party of twelve, including families of the men, under the direction of Professor Saur of the University of California. They seem to have ushered in the first real rain of the season experienced in this neighborhood. This rain, in about half an hour, put more water in the famous Cove than has been taken out during the past three weeks by local settlers; in fact, the water level is just about where it was when I arrived on the first of June. The rain is a blessing to the local farmers, though too late to make a good crop; but it will also make a lot more trail work for FERA workers on the Monument, and I am still somewhat worried about the elderly couple, an old man and his sister, pioneers of Oregon, who started for Ramah about two minutes before the rain started about 6:30 or 7:00 P. M. Also, during the afternoon I had a party which included in its number a young lady, a friend of the Boss' and his daughter Nancy, Miss Adele Marens, now of Albuquerque.

Visitors for the past 29 days, June 25th to date, inclusive, number 472, and the registrations show that they came from England, France, Washington, D. C. and thirty states.

Mr. Frederick K. Wroeland was here during the month, and at the end of our conversation was quite insistent that I write the story of El Morro, adding that I not only would get my reward in heaven, but would be doing a service. I told him that I thought that Custodian Vogt's job rather than mine, and I also pleaded lack of time because of being time-keeper and pinch-hitting foreman on FERA work which leaves me hardly time for sleep in addition to my other duties.

Local people who haul water from the Cove have an interesting argument which purports to show that the Park Service has no right to close the Cove to water haulers. Most of them are homesteaders and when filing on their land were restricted from including any permanent springs or natural reservoirs in the areas filed on because, they claim, the Department of the Interior stipulated that such water supplies were for public use and not to be restricted to private use.

Incidentally, if water haulers were counted as visitors our count for the month would be increased about 50%. Some days there are few people hauling water, but on others there are teams and trucks lined up awaiting their turn at the hose to fill their barrels. It was noticed that one truck hauled 28 barrels of water in two days. The rehabilitation programs under FERA include some public wells in the neighborhood which will be a great help to the settlers, and at the same time these wells will reduce the water hauling from the Cove, though it is likely there will still be a few who will want to haul some water. With heavy rains to contend with during the rainy season it will be necessary to have a more permanent means of siphoning the water from the Cove for irrigation, etc., than the borrowed pipe and hose now in use which belongs to the Indian Service. An alternative might be to remove the cement dam and put the Cove in a condition as nearly as possible to that which it was in when the Conquistadores used it as a water supply, thus allowing considerable portions of the water to seep away underground, or course, after a regular water supply is available on the Monument.

## EL MORRO (Cont'd.)

I captured another rattler this year, but he was just a baby and no match for my old pal Bosco of last year. Neither could this little one stand the conditions imposed on him by my improvised cage, and he died. This is the first season that I have seen frogs in the water cove, and judging from thence they are making at present there must be a thousand of them in there. Both humming birds and snakes made their first appearance on July first. The birds are quite numerous and gorgeously colored.

One of the Mexicans working under FERA found a small stone axe in the canyon, evidently once the property of an occupant of the prehistoric, ruined villages

atop the mesa. He showed it to me, and I thanked him for it in the name of the Government and assured him that I would put his name on it. I'm not at all sure that he intended to give it to the Government and doubt that he will again show me any axe he might find.

\* \* \*

## GRAN QUIVIRA NATIONAL MONUMENT

By W. H. Smith, Custodian

Report time again has rolled around and I find my registration to be rather disappointing as I have only registered 404 visitors the past month as compared to 849 in June. We find that these visitors register from eleven states namely Louisiana, Colorado, North Dakota, Arizona, Indiana, Ohio, Pennsylvania, Texas, California, Oklahoma and New Mexico. New Mexico has the leading representation with Oklahoma and California following respectively. These 404 visitors entered the Monument in 75 cars, horseback parties and otherwise.

Well, we should soon have a road here that will accommodate the people who wish to enter the Monument as Mr. Howard Leslie, foreman of the P.W. is here and pressing along nicely with the work that was started under the Civil Works administration. On date of June 30, Mr. W. G. Attwell, Associate Engineer, came in and he and Mr. Leslie went over the completion of the road together. On the same date Engineers Robert Harris and Knox Borden came in to assist Mr. Leslie with the survey of the road. On the following Monday morning these Engineers began their survey of the entrance road working on this through the first week of July. Then on July 9th, work was started on the road with a small crew which I am pleased to say has done quite a lot of good in the time spent. I feel that we are fortunate in obtaining Mr. Leslie as foreman for the work here, as he understands road work thoroughly and gets a great deal of work accomplished with but little expense and very few men.

Again I am compelled to report a dry month, no rain in this vicinity yet, however, it has rained a few good showers within a short distance, but right here in this community there hasn't been any which I am sorry to say makes our Monument look forlorn without the usual green vegetation and flowers that generally adorn it at this time of the year. Along with this dry weather we are having some unusually hot days for this mountainous region. One day last week the thermometer stood at 94° in the shade, which is about eight or ten degrees above normal for this country and time of year.

GRAN QUIVIRA (Cont'd.)

The drouth has thrown this country into bad shape financially as farming is the principal means of support, and as late in the season as it is, if it should rain plenty from now on it is too late to produce a crop before freezing weather this Fall. We are still hoping to get rain enough to make grass so range stock can subsist through the coming winter. The greater part of the people here are employed on relief work. With two more projects starting in the county soon, they may continue to be so employed.

\* \* \*

MONTEZUMA CASTLE NATIONAL MONUMENT

By Frank L. Fish, Ranger  
in Charge.

We offer the following report for July:

The weather was fair for the month, with about ten days of extremely high temperatures. During this warm period a noticeable drop in the daily attendance of visitors was observed. However, with a few local showers it has become much better. It was quite interesting to notice that the visitors from Phoenix and vicinity generally made the complaints concerning the heat. Probably a natural reaction, as they were trying to escape the heat wave and consequently were disappointed.

Visitors for the month numbered 1,896, an average of over sixty a day. Group parties consisted of a party of thirty school teachers from the Flagstaff State Teachers College summer school and two parties of boys from the Palo Verde Ranch School at Prescott.

Park Service visitors during the month were Mr. and Mrs. Dale King, Mr. and Mrs. Walter Attwell and son, Jim, Mrs. Hilding Palmer, Mr. Harry Lengley and the Boss.

Custodian Jackson left the afternoon of the 22nd for the coast on a sick leave by the orders of his physicians. During his absence Charlie Steen of the Tono National Monument is helping out.

The Gambel Quail on the Monument seem to have had bad luck in hatching this year. From about twenty pair we have noticed only five young.

Mrs. Everett Hare, the nearest neighbor above us on Beaver Creek, reports a pair of Arizona Cardinals nesting with two young near her house. This is the first time they have been observed nesting in this region.

Due to the dryness of the past year many of the Sycamores shed many of their leaves but since the showers new buds are appearing.

New acquisitions for the museum consist of two partly broken arrow points

### MONTEZUMA CASTLE (Cont'd.)

and a ceremonial slate with a well define design about the border.

You can never tell what an engineer will do. About the time you think they are pretty hard boiled, a sudden burst of sentiment overcomes them. Engineer Brown was observed during the month moving all his belongings from his cabin, completely turning his home over to a skunk. Harry was quite enthusiastic over the beautiful coloring of the animal and seemed to be antagonistic toward anyone who attempted to harm his friend.

For details of P. W. A. Construction, I refer you to Mr. Brown's report.

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### MONTEZUMA CASTLE (SUPPLEMENTAL)

By Harry F. Brown, Foreman

Work on the three projects under way at this point is progressing nicely. The revetment work is two-thirds completed and I believe that we will have sufficient material and funds to complete it to 75%.

The rock work on the equipment shed and garage will be completed before the end of the month.

Excavation for the sewage system has been completed and if there is any possible way to hurry up the corrugated cover for the filter ditch it would be greatly appreciated.

\* \* \*

### NATURAL BRIDGES NATIONAL MONUMENT

By Zeke Johnson, Custodian

It certainly seems like report time comes pretty often these days. I am glad to tell you that all is well over here but it seems that it can't rain though it tries to about every day. It hasn't done much for us yet. It is very hot and the vegetation looks sad and yellow everywhere. A few showers around the country has helped in some districts. I have just come in from the Bridges last night and there were 46 registered for this month and I met six people in a big car from Missouri going down beyond the Bears Ears so that will make 52 and we have six days of the month to go. People from the following states have visited us: Utah, Kansas, Missouri, California, Maryland, Wisconsin, Pennsylvania, Michigan and Colorado. We still have very good water in the pools but it will have to rain soon or I will have to lie down in the gravel to get water to drink. I still have plenty for car use and wash water.

There is a party of Geological surveyors camped there now and they have been there several weeks putting in elevation bench marks. They are following the old Mormon Pioneers Trail through to Bluff that was blazed in '79 and '80. The Engineers who were surveying the road out to the Monument have been called to Wyoming for a month or so but they expect to return here in the Fall to

### NATURAL BRIDGES (Cont'd.)

finish up. The road work is not progressing very fast these days as only ten or twelve men are working on it. There is a G.C.C. camp in Wayne County working on the road that comes this way so we still have a little hope of some day connecting up with the Western world. I am still living in hopes.

I am batching it here for a few weeks as Mrs. Johnson became ill and I had to send her to Salt Lake for medical attention. This is about all for this time.

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### NAVAJO NATIONAL MONUMENT

By John Wetherill, Custodian

We have just finished an intake put on for the benefit of the Rainbow Bridge and Monument Valley Expedition. The Indians are laying the blame for the present drouth on to the Expedition boys, saying the work in the ruins in the Tsagie is the cause. I have just proven to them that it was caused by Holkidnie, their Medicine Man, getting angry during the ceremony and wanting more pay for his work and failing to complete the ceremony.

We have had Mr. Ansel Holl and his wife, Mr. and Mrs. Wyman and many others since writing last. Herbert E. Gregory joined the expedition for two days. He put new life into the geologist of the party. Other work took him back to Zion Park. The Eastern division of the party came in on station wagons from New York on the Tenth. Dr. Winning was in charge of the party. There were fourteen in the group. They are having to leave this morning for the Tsagie where they expect to be a few days with Mr. Hargraves party of the Western division now working in Archaeology.

\* \* \*

### PIPE SPRING NATIONAL MONUMENT

By Leonard Heaton, Acting Custodian

It is now time for another report to be its way if it is to get to you before the first of August.

There has been a sharp increase in the travel, in both visitors and local people this past month, some of it due to the parties that have been held here by different groups and clubs. On the Fourth of July, the entire population of Moccasin and Pipe Valley met here for the afternoon to celebrate and have supper. There were ninety-one persons present in the party.

My travel record is as follows: (1. Other than local) California, 27; Utah, 70; Arizona 133; New York, 2; New Hampshire, 2; Idaho, 6; Nevada, 3; New Mexico, 4; Illinois, 1; Arkansas, 2; Park Service, 4; Indian Service, 2; England, 2; total 258; last month, 107; increase 151.



PIPE SPRING, CONTD.

(E. Local) By automobile, 547; Horseback, 29; Wagons, 4; Total, 580; Last Month, 553; increase, 27, giving a total for July of 838. The travel for June was 642. This gives a gain of 196 over last month.

Several complaints have come in to me about not having a good sign at Fredonia put up by the Park Service directing travel to the Pipe Spring National Monument. I have felt that need but did not know whether there was any money available for that purpose. If there is, we could get one made. If this is done, I will see to it that it is put up at the corner of the street where the road turns off Highway 89.

The Monument grounds are in good condition as I have had what water I needed to take care of the trees and meadow since the diversion weirs have not been installed. Thus, I have been able to keep things wet during the summer.

Commencing on the 17th, a storm began to come in spots and continued to spread until the 21st, so most of this country has had a little rain, but not enough to relieve the shortage of feed for winter grazing. If we could get that same kind of storm again in a week or two, there would be enough feed to take care of the livestock this coming winter.

Since my last report, the Indian Service ordered the pipe laid to carry off the Cattlemen's 1/3 of the water but when the time came to put it in, something came up holding it up indefinitely and from what I can find out the Pipe line will not be laid this summer.

Mrs. Heaton, while visiting her mother the past two weeks at Alton, Utah, met Mr. Hint Silar who was employed by a Mr. Findley who owned Pipe Springs back in the '90's and who had him do the tunneling that produced the Tunnel Spring. Mr. Silar told Mrs. Heaton that the purpose of the Tunnel was to get underneath the main body of the spring and take it all out through the tunnel and then carry the water in a pipe line 5 miles southwest to the Indian Knolls and make a cattle ranch there. But for some reason Mr. Findley sold Pipe Springs to Jonathan Heaton and sons before the project was completed. Mr. Silar states also that if we would dig down back of the northwest corner of the Fort we would get into the spring and probably get more water as Findley had Silar do this as the water was getting low at the Fort but was coming out in seeps along the hill, north for about 1/4 mile. After he had it all cleaned out, all of these seeps or little springs dried up.

I have noticed that there is more wet ground along the hill north for the last two years than when I can first remember much about the water here at Pipe. I am glad that Mr. Silar did not get to complete his project for this Fort sure would be high and dry with all the water taken five miles away.

In closing I will say that I am getting some of the place well cleaned up together with the work of showing the people through the Fort and telling them the history.

TUMACACORI NATIONAL MONUMENT:

By George L. Boundey, Custodian.

Our total number of visitors for the month is 526. This is our slow month and the excessively hot weather has caused the low figures.

Three good showers have relieved this entire area; the water holes have filled and the grass is starting. The cattle already look better and everyone who has a little ground is plowing and planting. A great many of the desert trees did not put out any leaves this spring. We thought many of them were dead but they are nearly all putting out tiny green leaves since the rains have come.

Out of 7,000 adobes in the process of drying, we have lost only about 400 by the rains. The wall construction is going along nicely.

The Nogales Office says our project is the only one which has not gotten into difficulty so far, and our reports are the only ones which pass Government inspection. We could not ask for a more willing gang of men.

The carload of cement was left at the Tubac siding last Monday late. We had it unloaded by eleven o'clock Tuesday morning and as the two trucks from Mr. Hammond's CCC Camp N.M. #2a reached here early on Tuesday morning, we could deliver their 100 sacks to them directly from the car.

We are having considerable trouble with treasure hunters who come at night. I think our wall will do away with this night activity.

Mr. Langley of the Branch of Plans and Designs paid us a short visit in the middle of the month.

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TONTO NATIONAL MONUMENT:

By Charlie R. Steen, Ranger in Charge.

Here I am, trying to rate a little space in the monthly report, with less than 48 hours to my credit. During the only full day I spent at Tonto, four autos carrying 23 passengers stopped to look us over. In the following day while I was wondering how many visitors would break the solitude, Walt Attwell came along, told me to pack my extra pair of socks and tooth brush, that he was taking me to Montezuma Castle. Well, here I am for a few weeks, but I hope I will soon be back with the Apache.

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Charlie had no more than arrived at Tonto when word came that Jack at Montezuma had become suddenly ill and would have to be off for a few weeks. The Apache Indian is "Henry" and Charlie was at Tonto hardly long enough to smoke the peace pipe and draw up a treaty of peace between him and Henry. Henry is employed by the Southern Pacific Company to check vandalism at the ruins. He says we're having this drouth "because the Great Spirit's awful mad about something we white people are doing". Charlie will be back with Henry in a few weeks.

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Again, a welcome to a new member of the force, Jimmie Brewer, who is in Walnut Canyon holding things down until a new ranger's papers can be acted upon after which Jimmie will go to Wupatki for a few months on his regular assignment. In this report, a sketch of what Walnut Canyon has to offer, is outlined. Jimmie began the latter part of the month at Walnut and we hope very soon the papers will all come through enabling us to temporarily man both Walnut and Wupatki.

WALNUT CANYON NATIONAL MONUMENT:

By Jimmie Brewer, Ranger in Charge.

During the time I have been reading "Southwestern Monuments" I have never seen a report therein from Walnut Canyon National Monument. I am assuming that this marks its first entry into "the only road Government Report in Captivity".

If that is correct, it seems a good idea to include this time something of the history and general character of the Monument. Dr. Colton of the Museum of Northern Arizona, has written a pamphlet on these features (Museum Notes, Museum of Northern Arizona, Vol. 4, No. 1) which we keep here for distribution, and which at present serves as guide and as our educational department. I'll quote excerpts:

"About ten miles southeast of Flagstaff, and five miles south of U. S. Highway 66, lies a slash, cutting deep into the limestone plateau. Because walnut trees grow among the boulders in the Canyon bottom, the gorge has long been known as Walnut Canyon. This canyon is similar to a dozen other canyons cutting the Kaibab Limestone in this general region; but it is distinguished from these others by the large number of prehistoric cliff houses which crowd the limestone ledges. A recent survey records over 300 rooms. To protect these antiquities, President Roosevelt, in 1906, set aside one and one-half square miles as a national monument.

The importance of the Walnut Canyon National Monument centers on the cliff dwellings which furnish us a lesson in archeology. Eight hundred to nine hundred years ago a pueblo people built a straggling village on and under certain ledges which, in a characteristic manner, weather out of the Kaibab Limestone. The potsherds scattered down the talus slope and the few skulls that have been found tell us that the builders were probably the ancestors of those who later built Kideā, Turkey Hill, and Old Caves Pueblos.

"In Northern Arizona the remains of the dwellings of ancient peoples who once lived on its plateaus are everywhere abundant. Even the casual visitor gets a thrill from observing the outlines of rooms, mounds, and masonry cliff dwellings, such as we see in the walls of Walnut Canyon. These remains have long attracted the archeologists and from these remains they have been trying to piece together the history

## WALNUT CANYON, CONT'D.

OF A PEOPLE WHO have left us something of their art but no written history.

"It is interesting to know how these ancient peoples lived, how they built their houses, where they found their water, and where they cultivated their fields. Vandals have destroyed the houses in Walnut Canyon during the past forty years, but still we can see how they were built. An overhanging ledge was selected for a roof. Walls of stone with adobe mortar were constructed as partitions for a string of rooms. Front walls were built which did not usually tie into the side partitions. The foundations of these walls consist of large alabs turned turned on edge in two rows. On these slabs the masonry of the wall rests. As the front wall is exposed to the weather, moisture has caused the front row of slabs to settle, and thus the wall leans and finally falls, exposing the interior of the houses to view. The floors were leveled. A T-shaped door in the front wall opened into a narrow room lit by a few loopholes. Inside was the fireplace which served for both heating and cooking. The smoke, after blackening the roof, found its way out through a small smoke hole, often over the door. All was originally neatly plastered with adobe, so the walls were smooth and the mud floor clean.

"James Stevenson, visiting Walnut Canyon for the Smithsonian Institution in the summer of 1883, reports: 'The doors are large and extend from the ground up to a sufficient height to admit a man without stooping. The rooms are large and the walls are two to four feet thick. The fireplaces are in one corner of the room on an elevated rock, and the smoke can only escape through the door. The masonry compares favorably with the construction of the best villages in the Canyon de Chelly. Many objects of interest were found in the debris around and in these houses. Matting, sandals, spindle whorls, and stone implements of various kinds abound'. All these objects have disappeared in the past 50 years and even few doorways are intact.

"In May, 1932, the archeological expedition of the Museum of Northern Arizona, under Mr. Lyndon L. Hargrave, restored two of the houses. ---Timbers from under the floor dated 1092 and 1094 which would indicate that the rooms were occupied probably in the early part of the 12th century.

"The geology of Walnut Canyon has an interest second only to archeology. When one looks into the canyon and observes the dry stream bed, one wonders how such a canyon came to be. Walnut Creek, which eroded the canyon, is an intermittent stream so typical of the semi-arid Southwest. For a few weeks, when snows are melt-

## WALNUT CANYON, CONT'D.

ing in an extensive basin south of Flagstaff, Walnut Creek is a rushing stream; the rest of the year it is dry. After flowing north through open valleys until within a few miles of Flagstaff, the stream suddenly turns east and for fifty miles zig-zags through a series of limestones and lava canyons until its waters meet the Little Colorado.

"South of Flagstaff, some thousands of years ago, the earth cracked and the east side of the crack rose 300 feet above the west side. This break in the strata is called the Anderson Mesa fault. The rising block of strata tended to dam Walnut Creek but this rise was so slow that Walnut Creek was able to saw its channel deeper as fast as the land rose.

"The slash across the plateau cuts through the Kaibab Limestone into the yellow cross-bedded Coconino sandstone. The canyon is crossed by dozens of small north-south faults. When the canyon is followed on a map, its course is seen to be very meandering and zig-zagging. The stream has followed each cross-break or fault for a short distance and then continues in its original direction until another cross-break is encountered. This process continues throughout the wandering course.

"When not lava-capped the hard sandy Kaibab limestone forms the surface of the plateau and, therefore, the canyon rim. This is the same hard rock which outcrops on the rim of the Grand Canyon.

"A stranger to northern Arizona sees everywhere plants new to him. On the plateau the Western Yellow Pine, with its three long leaves, is the dominant forest tree. On the rim of Walnut Canyon, the alligator-hark juniper and the Gambel Oak can easily be identified. On the south-facing walls of the canyon, the most common trees are the pinyon (two-leaved) pine, the cone-seeded juniper, and the so-called Western red cedar, a juniper, and thickets of the holly-like oak and sweet scented cliff rose. On the other hand, the north-facing canyon walls bear a totally different flora. Here the Douglas fir and the White fir are the conspicuous trees. These trees are normally found on the San Francisco Mountains over 8,000 feet in altitude.

"On the canyon bottom, trees that are ~~and~~ of water present a fourth type of flora. Here one sees walnut, willow, alder, etc."

Mr. and Mrs. Cox left the Monument on the 21st. I made three trips to the Monument while Mr. Cox, with his years of local experience, was available. We had to run down an almost obscure quarter corner so that

WALNUT CANYON, CONT'D.

my successor could be informed in case the much needed expansion comes through.

On taking over the acting-custodianship I found everything left in very good condition; the house and yard were a credit to any monument or park.

Several small needed improvements are, however, immediately obvious; there was a maze of accumulated directional and informative signs in front of the ranger's cabin which confused instead of helped visitors; these I have taken down, replacing the truly necessary ones where they will best guide the visitor. Local people have been in the habit of picking along the point road as well as within the area provided with ovens, benches, and refuse cans for that purpose. This should be discouraged so that the natural forest appears at its best to visitors, and the fire hazard is minimized. Occasional campers use the land in front of the cabin; in time of normal water supply and with the improvement of a restricted camping area this will be desirable and add to the Monument's usefulness and appeal. With the present water shortage I am not encouraging people to camp on the Monument. The trail from the point to the ledge ruins, which Mr. Cox constructed, now needs minor repairs in some places where the concrete has crumbled. I believe I can make the trail passable and safe while I am on duty here using only materials at hand.

Many of our visitors inquire about the route and mileage from here to Sunset and Wupatki; these three monuments make a natural chain. They are all to be included on the map which will be placed on the back of the Wupatki folders we are making up. With rangers at each of these monuments and definite information concerning them available, they will undoubtedly be visited by many more tourists who will thus, in a short time, be able to add greatly to their enjoyment and knowledge of northern Arizona.

Dr. Colton visited the Monument on the 22nd; his interest in the monuments and in Wupatki especially is enthusiastic and very helpful and we feel that the permanent loss of his active interest up here would be a great loss to the Service.

Your visit to us this week was a pleasant surprise and a big help; we hadn't expected a visit from headquarters so soon, and our afternoon's talk gave us a fine send-off.

Just to be different, we saved the record of the month's travel for the last, and then discovered that the register sheets for the month of July until the 21st are missing; Mr. Cox may have filed them away

### WALNUT CANYON, CONT'D:

too well, or taken them to the Forest Service office in town. We'll look them up, but meanwhile we can say that 318 people visited the Monument from July 21 to July 25, inclusive.

Ranger Frank J. Cox, at Walnut until the 20th under the Forest Service, reports on visitors to, and including, the 20th. He gives:

Visitors registered July 1-20 inclusive-----	1,504
Cars -----	318
Overnight campers-----	38
Reported by Cox-----	1,504
Reported by Brewer -----	318

TOTAL JULY 1-25th inclusive                    1,822.

There is a reason for Jimmie's use of the "we" in the report above. He steals a march on the whole Southwest and the other half of our bargain at Walnut, was Sarah Pierce, archeologist under C.W.A. at Montezuma last winter. We bargained for Jimmie as Ranger for Walnut and later for Wupatki a few months; to our surprise Jimmie and "Sully" were married a short time ago, and we have Mrs. Brewer in the bargain. The Boss drops into Walnut last week and finds them taking right hold of Walnut Canyon and its problems. May we add congratulations and best wishes. We think we're doing well when we can angle for one archeologist and get two!"

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### WHITE SANDS NATIONAL MONUMENT:

By Tom Charles, Custodian

This has been a quiet month from the custodian's viewpoint. About all we have had to do is to answer questions as to why certain things are not done at the Sands. "Why isn't there drinking water?"; "Why are those horrid temporary shelters still there?" and many other questions.

But in contrast to these, this month we have had the pleasure of seeing the Sands double in popularity. Prominent people from every section of the country drive in to town to tell us how they are impressed with the beauty and splendor of the new monument and they invariably express the feeling that this is one of America's outstanding attractions.

Despite the hot weather, the crowds increase. Every evening has from one to 20 or 30 carloads. Last Sunday for three and one half hours I counted the cars which went through the Monument and the average was more than one every four minutes. Much of the new interest comes from the fact that the local people are talking the Sands more since the Park

## WHITE SANDS, CONT'D:

Service has made the interior accessible. Mrs. C. C. Chase, daughter of A. B. Fall, addressed a Woman's Club meeting at Ruidoso recently, on the White Sands and the next day one of her audience, Mrs. Gildarsleeve of Waco, Texas, called on the Chamber of Commerce for 50 White Sand souvenirs to use as place cards at a Country Club dinner in Waco where table decorations and souvenirs were of white sands. Last night Will Robinson, dean of the New Mexico Press and Democratic Candidate for Governor, spoke on the White Sands in the lobby of the Southern Pacific Hotel at Cloudcroft.

Our White Sands exhibit at Chicago has gone over big. We hear so from many sources. The New Mexico management of the Century of Progress struck upon the happy thought of carpeting the New Mexico building with these alabaster sands and Coe Howard, Secretary-Manager writes me: "I think the greatest thing the Commission did was to carpet our exhibit building with the beautiful White Sands; in fact it is the only thing to completely finish our building. It brings out every color in the exhibit and the sands are attracting more attention than perhaps other features of the exhibit. I'm sure you are receiving untold publicity."

In response to Mr. Howard's request for literature, the Chamber of Commerce has ordered 10,000 of their "gadgets", cellophane sacks of Sand mounted on bright red paper with printed information concerning the Sands, the Lincoln Forest and the Alamogordo climate. It is the same old Chamber of Commerce, right in there and pitching in every kind of weather.

One of the pleasures of living in the Southwest is the opportunity of association with scientists who are out here on their research trips. These people are impelled by every conceivable notion. One is looking for a white lizard; another wants a pug-nosed, nocturnal snake; another wants a peculiar kind of bug or grasshopper, or a mouse, or a flower. They all want to visit the great white sands and of course we enjoy every one of them. This week we had two of the outstanding men of the nation, E. B. Howard, University of Pennsylvania Museum doing research work on Early Man in North America for the Carnegie Institution, and Dr. Ernst Antevy of Auburn, Maine, the world's greatest authority on glaciers and glacial periods, also under the direction of the Carnegie authorities. These men spent a couple of days at the White Sands, studying the outlines of the old lake bed; taking elevations and samples of soil at different depths; and studying the various prehistoric Indian mounds where Folsom Points have been found. They searched the arroyos for varves which are the winter layers and the summer layers of sediment washed out from the mountains and deposited in the flats and on the edges of the old lake beds. These varves are the tree rings for the glacial expert. It is possible that the visit of these scientists may give us light on the age of the Sands. They were deeply impressed with the whole region.



WHITE SANDS, CONT'D:

We promised our cooperation; we may never find them a glacier cut at the Sands but this might be a clue as to why the sands are so cold after the Sun goes down. We may at least find them an iceberg!

Two other interesting and interested scientists this month were Fred W. Emerson, head of the botanical department of the New Mexico Normal University, and M. R. Garner of the zoological department of a school at Richmond, Indiana (Earlham College). Dr. Emerson has made several trips here before and delights to take his bedroll and camp out in the Sands.

Probably our outstanding thrill this month was the announcement of the New Mexico Highway Commission that the Federal Aid Road from Alamo-gordo to the White Sands, 16 1/5 miles, is on the program for immediate construction. It is understood that this will be a completed road with oiled surface before the end of the year. Now if we can get word that there is money available for the completion of the road into the Sands, our Cup of Joy will be full to overflowing.

In sending a little article for a Circular of Information on White Sands National Monument for distribution to visitors, Tom says:

"Here is a little effusion on the White Sands. There may be a few too many 'flowers and babbling brooks', etc. Mrs. Charles says that is my failing, but you and Mr. Rose can cut it down to suit yourselves.

"We had a wire from Coe Howard (At Century of Progress) yesterday urging this Chamber of Commerce to send him another carload of Sand to the Fair in Chicago. They must be putting it in their coffee up there.

"They have carpeted the New Mexico Building with the Sand and visitors from here say that no one walks onto that Sand until they talk it over, pick it up and ask all about it."

Yes, Tom's enthusiasm for White Sands is unbounded. Some of those Fair visitors from the proud Dunes of Northern Indiana are going home and when they shake Tom's Sands out of their shoes and it gets mixed up with the local Lake Michigan product, Tom is going to make a request for extending the boundaries northeast to include the shoreline of Lake Michigan. Too, he will include the suburban areas of Chicago for when this Fair is over, they will just shovel Tom's Sands out the back door, and how they will drift. We almost forgot to mention how queer Lake Michigan would look with red water in it! Tom has some road money for finishing the road into the Sands, so that just about makes his picture complete.

REPORT OF ASST. ENGINEER J. B. HAMILTON: (Monthly Report to Chief Engineer)

"I was at Mesa Verde 16 days; Aztec 7 days; Canyon de Chelly 4 days; El Morro 1 day, and travelling the rest of the time. Generally, the weather was dry until the last few days of the month when storms laid some of the dust. On the last trip into Canyon de Chelly a heavy rain made the roads within ten miles of Thunderbird Ranch very slippery. The softening of the soil permitted the wheels to sink until high centers caused trouble.

"Aztec Ruins National Monument: This month Mr. Earl Morris has kept most of the crew under Public Works at Aztec Ruins National Monument busy on the restoration of the Great Kiva. The walls are nearly completed; about all that remains to be done is to roof it, plaster the inside and arrange a lighting system.

"I spent some time during the month sampling concrete from several sources. It is difficult to find good coarse sand near Aztec. The best found in an arroyo about six miles away, was hauled to the Monument and washed.

"The original ceiling over the east end of the museum rooms was covered with an evaporation pan type of roof on the 19th. It apparently is water tight without the use of water proofing. A small crew is continuing the work over the other roofs.

"Canyon de Chelly National Monument: - Money was finally allotted for erosion control work and trail building at Canyon de Chelly National Monument the last of June. I spent some time the first of the month going over the work with Mr. Grey and helping complete some of the maps.

"I came out again near the end of the month to inspect progress. Mr. Grey has been working a crew of 33 Navajos with a white foreman, powder man and timekeeper for about two weeks on the trail. Except for the tunnel at the lower end of the trail, was about 80% complete up to the foot of the talus slope.

"Erosion control work has not started because of lack of approval of definite location of structures. A crew of 15 to 20 Navajos with one white foreman has been cutting posts, quite a few of which have been hauled and stacked near Thunderbird Ranch.

"Mr. Murphy has completed detailed maps showing location of fields, trees, banks, trends of streams, etc. in Canyon de Chelly. Recent rains caused a flood which washed out most of Mr. Grey's stakes which he had set to show location of erosion control fences near White House. In anticipation of floods, we had not staked out much of the work in the bed of the stream, preferring to plan the work on Mr. Murphy's maps.

HAMILTON REPORT, CONT'D.:

Mr. Grey submitted a plan and profile showing three alternate locations for the upper, or not yet approved, portion of the trail. Preliminary surveys have been completed but not yet drafted for the trail out of Canyon de Chelly into the area between canyons.

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REPORT OF ASSOC. ENGINEER WALT ATTWELL:\* (From July Rep't. to Chief Eng.)

\*All projects, P. W. A. and F.E.R.A., in the Southwest, except the Aztec Museum, are under way. With that one exception, every man is working that it is possible to place.

Bandelier:

The ECW Camp at Bandelier is constructing trails up and down Frijoles Canyon, remodeling the Ranger's quarters and developing a camp ground. During August, we expect to continue trail construction and repairs to the Ranger's quarters, and start moving the concessionaire's buildings.

Capulin:

The FERA crew at Capulin is constructing a fence on the boundary line and completing the Rim Trail and the Crater Trail. This crew consists of one foreman and 10 to 15 laborers, with no equipment.

Casa Grande:

One rodman with 12 FERA laborers has just completed fencing the south and west boundaries of the Monument and has made 7,000 adobe bricks. This work must stop on August 1 because we are unable to furnish any supervisory personnel, although 12 FERA laborers are still available without cost. The engineering transportation at present is housed in the sun without shelter. All of the Southwestern Headquarters transportation except two cars, is also outside. If one man as foreman at \$112.00 per month could be financed from some P. W., it would be possible to have these cars housed. All bricks and materials are on the site.

\*On July 12, the Engineers located and placed on the Casa Grande plans all constructed power and telephone lines. They also tied in sewers and water mains which were placed since the map was made.

Chiricahua:

The ECW Camp is constructing trails in Rhyolite Canyon. Test wells have been placed in Bonita and Rhyolite Canyons without success. Work will start immediately on the Mescal Point parking area and amphitheatre. I was at the Monument on the 7th and 21st. On July 11th plans were made for Rhyolite Canyon Trail. On July 20th plans were made for the telephone lines. The Topographic Survey was to be continued this month, but Assistant Engineer Ray left the job before it was entirely finished and it will be taken up again about August 1st.

Gran Quivira:

The construction of the entrance road at Gran Quivira is progressing very satisfactorily under Howard Lealie, Engineering Foreman. The

#### ATTWELL REPORT, CONT'D:

lower half is now graded but needs surfacing. The upper half is not yet finished. Leslie has one truck, three teams and 15 laborers.

#### Montezuma Castle:

At Montezuma Castle, the construction of the garage and equipment shed is 60% complete. The stone work on the walls is completed and is an excellent example of masonry. The steel sashes are in place. The roof, floor and doors have not yet been placed.

"The Revetment is good. Three hundred feet of the upstream end have been completed. This will protect the Castle from just below the Museum from erosion. A crew of 22 laborers under P.W., working two shifts, has constructed several hundred feet of the lower end. This will protect the picnic area and silt up with the first flood. Thus Nature will begin to restore this area with the first rains. A 15-man FERA crew is working on the center of the Revetment where there was danger of losing the sandy section.

"Excavation is complete for the sewer and septic tank. The materials are all on the job except the filter trench cover which is under contract.

"The Ruins trail is being held up awaiting approval of plans by the Director.

"It is interesting to know that Harry F. Brown, Foreman, is running all of these operations alone--working two shifts. He was employed previously on the engineering crew.

#### Tonto:

"I visited Tonto National Monument on July 22, returning with Ranger Steen, who has been transferred to Montezuma Castle during Custodian Jackson's illness.

#### Tumacacori:

I visited Tumacacori National Monument on the 8th and again on the 25th. We have a P.W. crew constructing the fence and gates at the parking area and the FERA crew of 10 to 24 laborers on the adobe boundary fence. This work will be completed in about 30 days if the crews continue of the same size and efficiency.

#### Wupatki:

Engineers are now making a reconnaissance for an entrance road between Highway 89 and Sunset Crater National Monument. This will pass Citadel Ruins, go to the west of Ruins J, through the Wupatki area into the Forest land near Sunset. This line has been laid out

ATWELL REPORT, CONT'D:

with the cooperation of Dr. Colton.

Sunset Crater:

A Reconnaissance survey has been completed from Highway 89 into Sunset Crater. It passes on the east of Lenox Crater, through the lava flows, west of the squeeze-ups, east of the Ice Caves to the base of Sunset Crater. This is one end of the Wupatki-Sunset Crater Loop Road. On July 15, I climbed to the summit of Sunset, looking over the proposed trail. A good location on the east slope in the timber has been selected.

Walnut Canyon:

I visited Walnut Canyon on the 15th of July as ex-Custodian Frank Cox vacated, going to his new post in Coronado National Forest. There is certain to be raised a question about the north boundary because what has been believed to be in the Monument is 1/2 mile north. The present Ranger's house may not be on the Monument.

White Sands:

Plans have been completed on the proposed extension.

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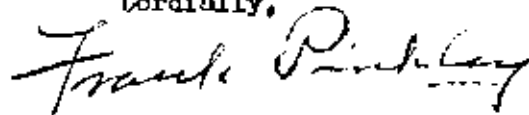
I think the pages of this report show the personnel in Southwestern Monuments has been quite busy during July. Some Monuments report travel figures approaching the high numbers of several years ago.

This is the first month reports have come from Chiricahua, Walnut Canyon and Tonto. These reports are of especial interest for in following them for a few months the problems they present will become better known. These are among the five Monuments transferred to our Service on July 1st.

As a closing note I want to thank everyone in the field for their response to the memorandum about getting reports prepared and sent so they'll reach this office a few days before the end of the month. Every report came in in just fine time, and our work at this end of the line in organizing the consolidated report was not held up by anybody. We'll now close the July 1934 Report and go into August which is giving promise of being as interesting and busy.

(R.H.R.)

Cordially,



FRANK PINKLEY,  
Superintendent.

### Notice

Chief, wouldn't you be all pleased if one of the best Archaeologists in the United States wrote the Head Man in one of the big institutions of the United States and told him to get a complete file of your reports for the last few years, even if he had to have a typist copy them, and put them in his library among his reference books because of the information they contained?

Well, he did and we are.

Which leads us to remark that we are going to number the pages of our reports consecutively for six months at a time, beginning July 1, this year, and at the end of the six months we will issue an index covering the volume just closed so those who wish to do so may bind the copies and keep them for future reference.

Past issues are out of print and it is no use trying to get any back copies. There is something funny to us about the fact that we are just a bunch of fellows having considerable fun out of our work and writing to each other at the end of the month about what we have been doing and what has happened, and here a lot of other people ranging from peasants to professors and society folks to scientists seem to want to know too.

After all, we are working for them and it is their right to know what we are doing and we are glad to tell them, but we intend to warn the Big Archaeologist and the Head Man that our reports were thrown out of one University as collateral reading because our English wasn't pure enough, so they better have a care.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

PETRIFIED FOREST NATIONAL MONUMENT  
Holbrook, Arizona.

August 1, 1934.

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

Dear Mr. Director:

The following report of activities in Petrified Forest National Monument for July, 1934, is respectfully submitted.

GENERAL:

Travel still exceeds that of last year for the same period. For the month of July it is 3,986 less than for July, 1933. I believe that this is wholly due to the poor condition of U. S. Highway No. 66 to the east. Automobile travel bureaus and auto clubs decline to direct people over U. S. 66 in its present condition.

WEATHER:

The weather has been extremely hot and dry. Instead of the almost daily showers expected at this time of the year we have had only one good rain during the month. Weather statistics follow:

- Maximum - 100 degrees, on the 11th, 14th, and 30th.
- Minimum - 58 degrees, on the 6th, 7th, 9th, and 20th.
- Mean maximum - 92.7 degrees.
- Mean minimum - 62.9 degrees.
- Precipitation - 1.06 inches.
- Clear days - 14. Partly cloudy days - 17.

ADMINISTRATIVE:

Administrative and office work has been kept fairly well up to date.

PUBLIC WORKS:

The only Public Works project under force account was the test well at Headquarters. Insofar as obtaining potable water is concerned this well is a failure. After sealing the hole below the 960 foot level to shut off possible salt water below that point, another pumping test was made which showed practically no change in the mineral content of the water.

Operations were shut down July 6th, the contractor has removed the rig, all property and equipment borrowed from the Indian Service has been returned, and we are now clearing up the accounts, and reimbursing the Indian Service for well casing purchased from them.

I have sent samples of the water for analysis to Sanitary Engineer Hommon at San Francisco, the U.S.G.S. Water Resources Branch, and Crane Company of Phoenix. The latter company will submit a report as to whether this water can be made fit for drinking purposes.

We have submitted a plan to Mr. Hommon proposing to use this water for all purposes except drinking and cooking and as soon as we hear from him, a plan will be prepared for your approval.

#### LABOR:

The labor situation remains about the same.

#### BUREAU OF PUBLIC ROADS:

The surfacing of the monument highway with 7 inches of crushed gravel, including the 4 miles of U. S. 260 within the monument and to a point about one mile north of the A.T.&S.F. railroad is complete. There is a section of about 4 miles north to U.S. 66 still to be surfaced, and it is thought a contract will be let in the near future for that.

#### EMERGENCY CONSERVATION WORK:

CCC Camp NM-1, formerly SP-3A, did not arrive at the camp site until July 3. They had been delayed in moving about two weeks. The camp is located on the south bank of the Rio Puerco below the highway bridge. Water was developed by sinking a well to the depth of 48 feet. Considerable difficulty was experienced by Lieutenant E. C. David in sinking this well on account of the fluid texture of the quicksands encountered which constantly fouled the casing and pumping cylinder. After being partially successful in placing gravel around the perforated pipe a supply of approximately 3,500 gallons of fine water per day was developed. This was accepted by the Army as minimum requirements.

The company was commanded by Captain Russel Worthington until July 20 when he was relieved by Captain H. H. Geisser. The camp is well officered and the men are well behaved. I was somewhat worried about this camp being in such close proximity to the Pictograph area and the danger of vandalism to these, but their value was explained to the company and so far not a single case of vandalism has been reported. The facilitative and supervisory personnel under Project Superintendent W. H. Collie, have proved to be a high type of men and the whole organization settled down quickly to steady, efficient work. Project work started July 5, with 88 men and was quickly increased to full available strength. On July 19, the camp and most of the projects were inspected by Mr. Robert Fechner, Director of Emergency Conservation Work, and party, accompanied by Captain Paolo Sperati, U.S.A.



Sub-Corps Area Commander, Project Superintendent Collie, Assistant Engineer Bell, and myself. A separate report on Director Fehner's visit has been submitted.

RANGER and MUSEUM SERVICE:

Ranger Naturalist M. V. Walker is on duty daily in the museum. By furnishing relief from the ranger force the museum is kept open from the time of the first arrivals at 6:00 A.M. or earlier, until dark. During the month 12,245 people were given personal service in the museum. The rangers have all worked long hours faithfully and efficiently. On July 23 Park Ranger Thomas Carroll Miller was officially transferred to Chaco Canyon National Monument as Custodian. Carroll Miller has served in this monument as ranger for approximately two and a half years. He is leaving for his new position with the very best wishes of every one in this monument. He has served here faithfully and well. As a simple statement of fact, Carroll Miller is one of the best rangers it has been our fortune to work with through a long period of years. He will keep the "colors" of the Service flying at Chaco in the same manner that he has here. We shall miss Carroll and his lovely and amiable wife, Amelia. Temporary Park Ranger Stanley Dinsmore was promoted to the position vacated, this promotion being richly deserved.

In the educational program at the CCC camp, Park Ranger James Felton is assisting the educational director by conducting a class in elementary college mathematics on Monday and Wednesday evenings. He has fifteen or more in this class. Ranger Naturalist M. V. Walker is giving a course in Natural Science. Commencing August 1, he will lecture each Wednesday evening on the following subjects:

1. Introduction to Natural Science.
2. Archaeology: - (a) Indian Tribes, (b) Pictographs.
3. Archaeology: - (a) Ruins, Pueblos, (b) Pottery and Artifacts.
4. Geology: - (a) Structural Formations, (b) Exposures, Erosion.
5. Geology: - Historical Paleontology - Fossils: - (a) Animals, (b) Plants.
6. Biology: - Animal Behavior. Funny Things about Animals.
7. Biology: - Ornithology (Birds).
8. Biology: - Mammalogy (Mammals).
9. Biology: - Herpetology (Snakes, Lizards, Amphibians).
10. Biology: - Botany (Flowers).
- 11 & 12. Summaries.

These lectures should prove extremely interesting and a large portion of the company will attend, including the officers and the supervisory and facilitating personnel.

NATURE NOTES by RANGER NATURALIST M. V. WALKER:

The fact that Horned Toads produce their young alive is mentioned in practically all Zoology books and in all Herpetology reports. It seems

worth while, however, to report an interesting observation on the number of young produced by a certain species of Horned Toad, *Phrynosoma douglassi hernandesi*. This Horned Toad was collected on July 7 near the headquarters area and was placed in a box. The first young were observed about 6:00 P.M. on Monday, July 9, there being 4 young at that time. By 9:00 P.M. 19 young had been born, 18 living and one dead. This gives us an accurate count on the number of young produced at one time. There are many conflicting stories regarding the number of young, some estimates going as high as 29. However, this appears questionable.

When the young were expelled from the birth canal they were enclosed in a very fine membranous sac which contained a small amount of liquid and serum. They would usually remain quite lifeless for 30 seconds or a minute, then several spasmodic jerks usually sufficed to break the thin membrane, after which they immediately rolled over on their feet and were off for two or three sprints around their cage. They appeared very active and fully capable of doing considerable traveling in search of food.

In an attempt to bring them a supply of food a tragedy almost resulted. On numerous occasions Horned Toads in captivity have been assured an abundance of food by simply placing a little milk or syrup in their cage. This attracts many small ants, on which the Horned Toads feast. In this case, however, the heat of the Arizona sun was not considered, and the syrup placed around the sides of the cage melted and ran down on the floor. The young Horned Toads, in making their trips around the cage, were soon pretty well "stuck up", so much so, that when their "predicament" was discovered, about half of them were stuck fast to the floor and could not move, while the others had their legs firmly glued to their bodies. A few drops of luke warm water and a little persuasion released them and got them going on all "four" again. They were then transferred to a cage that had the floor covered with dry sand, where they "dried out" and began burying themselves in the dirt. This cage had a few cracks in it and in a few hours most of them had escaped and were out in the world "on their own". Mrs. Horned Toad also escaped, but mamma and some of the youngsters have been seen from time to time during the past two weeks.

#### TRAVEL:

Travel statistics for July were as follows:

For the month, Petrified Forest section; cars,	4,444;	people,	16,298
Previously reported. . . . .	" 20,023;	"	57,393
Total to date. . . . .	" 24,467,	"	73,691
- - - - -			
For the month, Painted Desert section. .	" 5,410;	"	22,327
Previously reported. . . . .	" 21,342;	"	84,479
Total to date. . . . .	" 26,752,	"	106,806
- - - - -			
Total for the month. . . . .	" 9,854;	"	38,625
Total for same month last year . . . . .	" 12,369,	"	42,611
Total to date. . . . .	" 51,219;	"	180,497
Total same date last year. . . . .	" 48,097,	"	156,356

Travel was registered from every state, the District of Columbia, and the territories of Hawaii and the Phillipines. Foreign travel registered from Argentina, Australia, Austria, Canada, England, Germany, Japan, and Korea. Tours passing through the Forest were as follows:

Georgia Caravans, 150 people, July 3.  
Omnibus Collogo, 3 parties of 70 people each, July 7, 8, and 9.  
Jackson Educational Tours, 24 people, July 13.  
Parkhill Tours, 30 people, July 16.  
Scenic American Tours, 32 people, July 18.  
Drake University Educational Tours, 30 people, July 28.

On July 20, a party of 185 people from Mississippi stepped off their special train at Adamans, and were met by 60 cars furnished by the Chambers of Commerce at Holbrook and Winslow. They were whisked through the Forest, given a short lecture in the Rainbow Forest, and then taken to Winslow for dinner.

All the above groups were given lectures in the Rainbow Forest, and, if a man could be spared, were guided through one or more of the other Forests in the monument.

#### SPECIAL VISITORS:

ECW Director Fechner and party, July 19. Mr. Frank Pinkley, Superintendent of the Southwestern National Monuments, July 26 and 29. Harry Langley, Resident Landscape Architect, July 27, 28, and 29. Dr. W. E. Long, U.S.D.A. Plant Pathologist, July 5. Dr. Loye Miller, Biologist, University of California at Los Angeles, July 6. Dr. E. L. Howett, Archaeologist, University of New Mexico, July 14.

#### ACCIDENTS:

On July 20, E. M. Ponder, a CCC enrollee, was on duty at Agate Bridge. While waiting for tourists to come along he was standing on the Agate Bridge log leaning over and holding to the branch of an aspen tree there. The limb broke and Ponder fell about 20 feet to the bottom of the arroyo under the bridge, suffering a broken leg. He waited for some time for help. Finally, a man and wife came along and he begged them to assist him. Before rendering any help whatever, the tourist propped Ponder up against a rock, stood his wife up with him and snapped their picture. Then the wife took the husband's picture in the same manner. The tourists then drove to Headquarters and notified the man on duty at the museum. Rangers Miller and Kirk took a mattress and a light truck and transported Ponder to the CCC camp where he was cared for by the camp doctor.

Ponder said he wouldn't have minded so much, but the people did not even ask his name so as to send him one of the pictures. At last reports he was doing well, having been sent to Fort Bliss, Texas, for more careful treatment.

Very truly yours,

*Chas. J. Smith*  
Chas. J. Smith, Superintendent.

SUPPLEMENT  
REPORT FOR JULY  
SOUTHWESTERN MONUMENTS

August 1, 1934

We start with something valuable taken from the Mall. Quoted in full below is an article "Salesmen of Knowledge" by Glenn Frank, President of the University of Wisconsin. Here it seems we have summed up, the role of the ranger naturalist and the ranger as interpreters of scientific knowledge. We will gather that the field of the interpreter is a very specialized one in a sense; that special qualifications and abilities are required or must be cultivated.

SALESMEN OF KNOWLEDGE

By Glenn Frank

The future of America is in the hands of two men - the investigator and the interpreter. We shall never lack for the administrator, the third man needed to complete this trinity of social servants. And we have an ample supply of investigators, but there is a shortage of readable and responsible interpreters, men who can effectively play mediator between specialist and layman. The practical value of every social invention or material discovery depends upon its being adequately interpreted to the masses. Science owes its effective ministry as much to the interpretative mind as to the creative mind. The knowledge of mankind is advanced by the investigator, but the investigator is not always the best interpreter of his discoveries. Rarely, in fact, do the genius for exploration and the genius for exposition meet in the same mind. Many negro mammals of the south can make a strawberry shortcake that would tempt the appetite of the gods, but they might cut sorry figures as domestic science lecturers. The interpreter stands between the layman, whose knowledge of all things is indefinite, and the investigator whose knowledge of one thing is authoritative. The investigator advances knowledge. The interpreter advances progress. History affords abundant evidence that civilization has advanced in direct ratio to the efficiency with which the thought of the thinkers has been translated into the language of the workers. Democracy of politics depends upon democracy of thought. "When the interval between intellectual classes and the practical classes is too great," says Ruckle, "the former will possess no influence, the latter will reap no benefit." A dozen fields of thought are today congested with knowledge that the physical and social sciences have unearthed, and the whole tone and temper of American life can be lifted by putting this knowledge into general circulation. But where are the interpreters with the training and the willingness to think their way through this knowledge and translate it into the language of the street? I raise the recruiting trumpet for the interpreters.

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## ANALYSIS OF RANGER SERVICE

at

CASA GRANDE NATIONAL MONUMENT.

July, 1934.

\*

It is just as well that no conclusions were drawn from the graph of visitors given in the June, 1934 report, for, if such conclusions had been drawn, they would have been most sadly upset by this month's graphs.

In order to illustrate more clearly the comparisons between the two months, four graphs have been prepared, instead of one. The solid lines represent this month's figures, the dotted lines last month's.

Average time devoted to complete trip through both ruins and museum:

June: 55 minutes

July: 59 "

Average time devoted to ruins trip only:

June: 28 minutes

July: 33 "

Average time devoted to museum trip only:

June: 23 minutes

July: 26 "

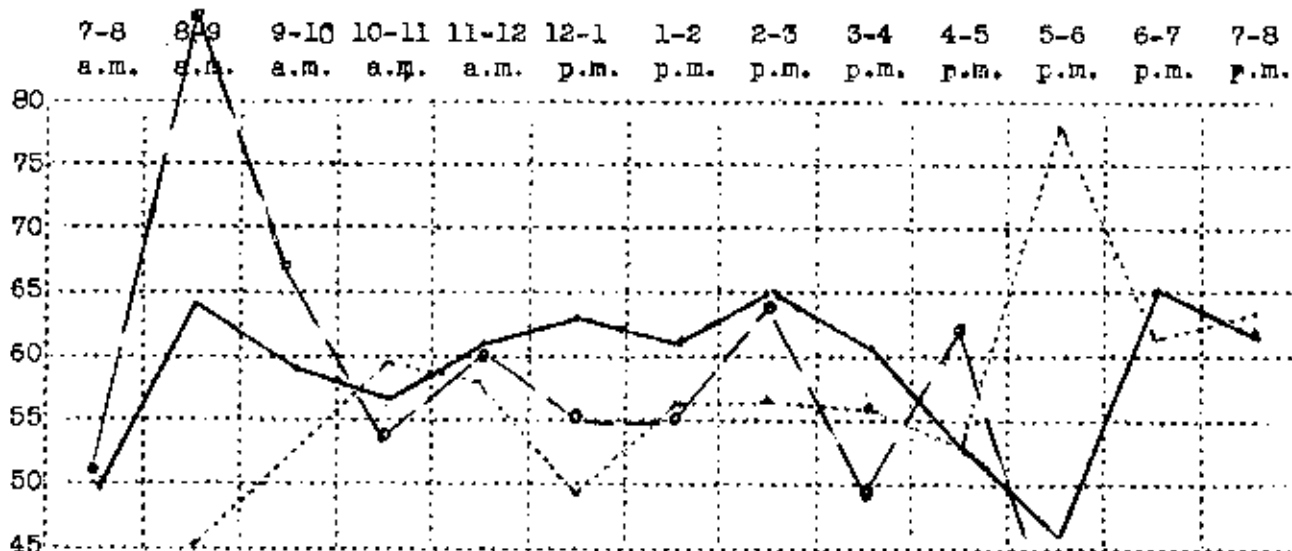
Of the 227 complete trips, 14.15% were started before or after the hours of 8 a.m. to 5 p.m. The latest trip necessitated service until 8:30 p.m.

GRAPH NO. 1: Average length of complete trips (both ruins and museum) in minutes.

This graph was prepared from the 227 complete trips made through both ruins and museum, and covers the period from June 29th to July 31st, inclusive. In the table shown below, the column on the left indicates the time the trips began, and the column on the right indicates the percentage of these 227 trips starting between the hours indicated:

3 p.m. to 4 p.m....	15%	—	13.60
4 p.m. to 5 p.m....	11%	—	10.20
1 p.m. to 2 p.m....	9.7%	—	9.52
2 p.m. to 3 p.m....	9.2%	—	8.89
9 a.m. to 10 a.m....	8.8%	—	11.56
11 a.m. to 12 noon..	8.8%	—	5.44

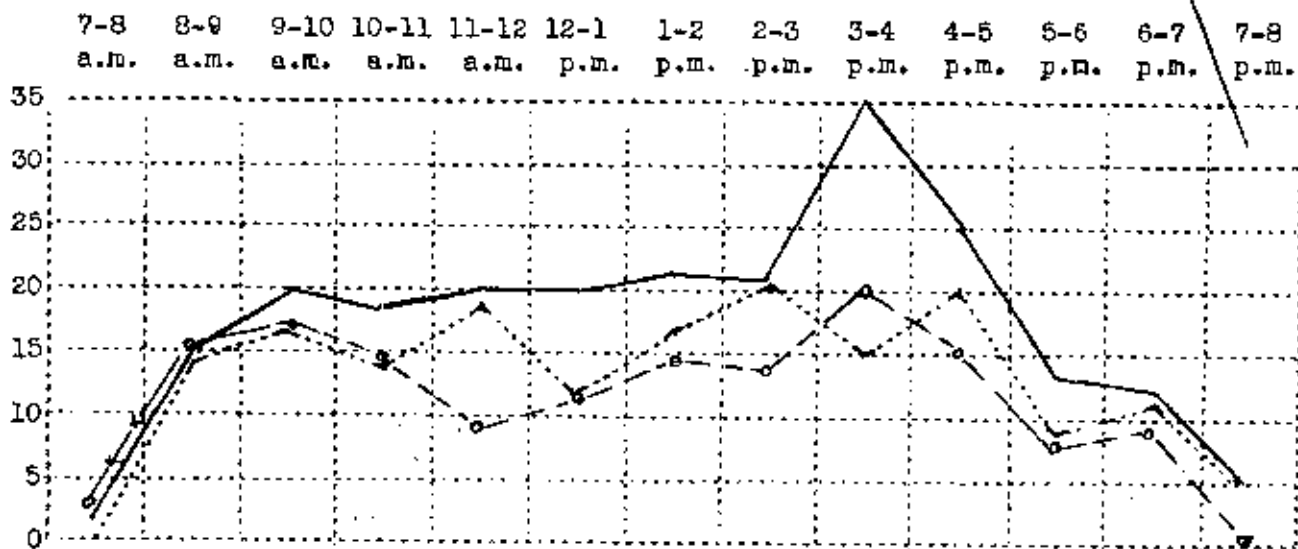
No. 1



Average length of complete trips (both ruins and museum) in minutes.

\*

No. 2

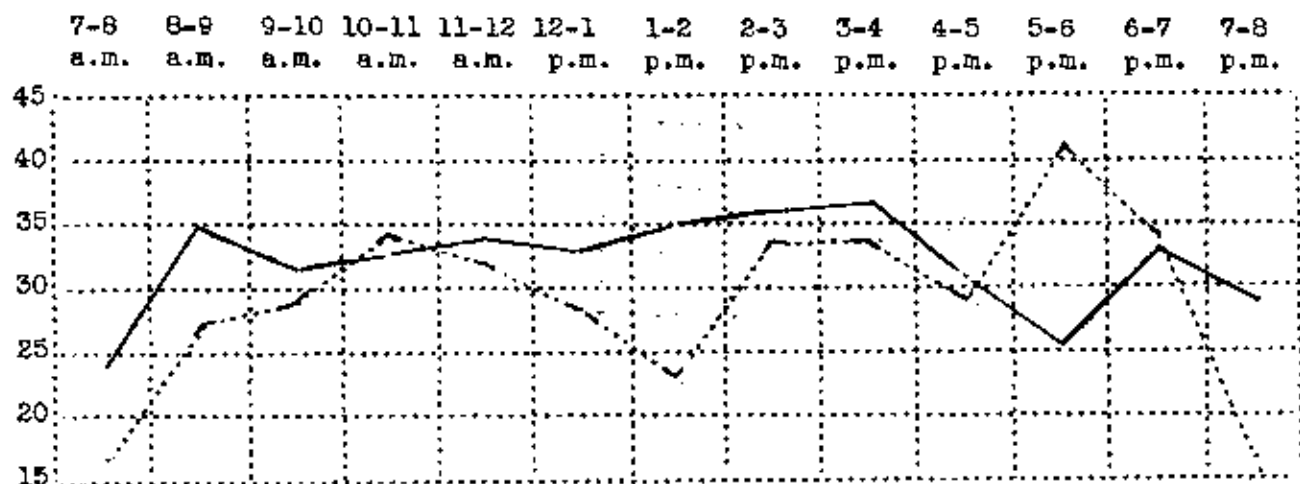


Number of parties starting between hours indicated.

Solid lines: July, 1934.

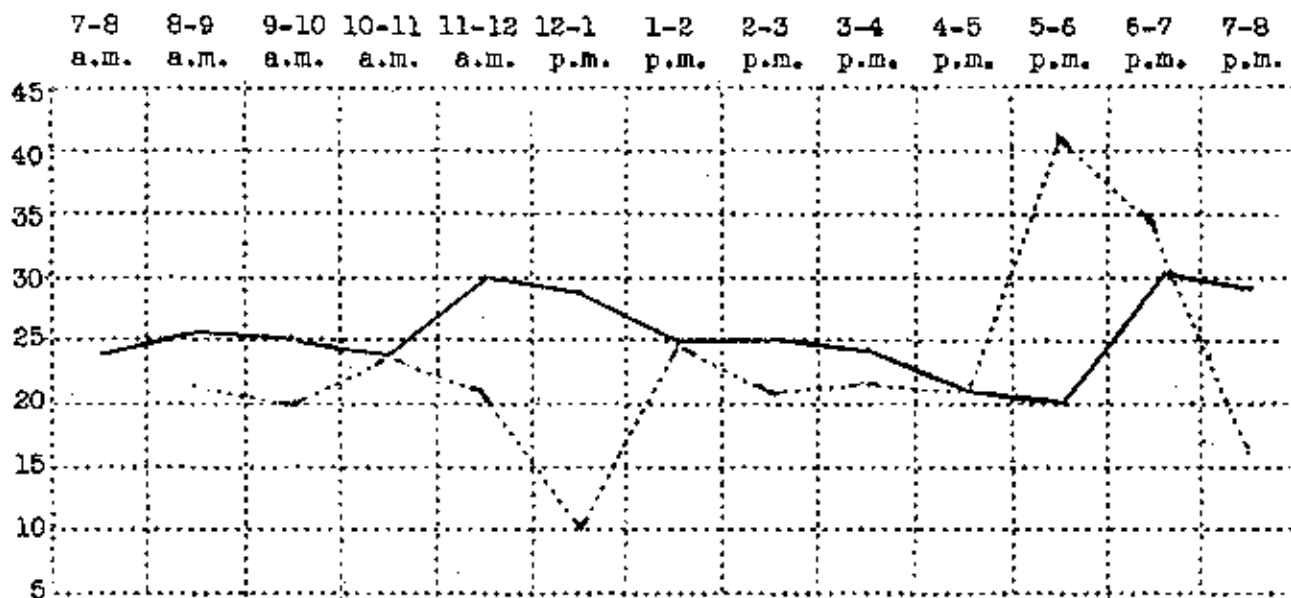
Dotted lines: June 14th to 26th, 1934.

No. 3



Average length of ruins trips, in minutes.

\*



Average length of museum trips, in minutes.

No. 4

\*

Solid lines: July, 1934.  
 Dotted lines: June 14th to 28th, 1934.

12 noon to 1 p.m...	8.8%	—	8.16
10 a.m. to 11 a.m...	8.0%	—	5.52
8 a.m. to 9 a.m...	6.6%	—	10.20
5 p.m. to 6 p.m...	5.7%	—	4.76
6 p.m. to 7 p.m...	5.3%	—	5.44
7 p.m. to 8 p.m...	2.2%	—	.68
7 a.m. to 8 a.m...	.9%	—	

In Graph No. 1, almost a complete reversal of "high" and "low" areas is shown, in the comparison between the data for June and July. The great "high" of June, between 5 and 6 p.m., is the most pronounced "low" in July.

GRAPH NO. 2: Number of parties starting between hours indicated:

After the hour of 9 a.m. to 10 a.m., during this month, the number of parties per hour remains fairly constant until between 3 to 4 p.m., when a pronounced "high" occurs. Unfortunately, this same hour during June marked a decided "low."

GRAPH NO. 3: Average length of ruins trips.

After the hour of 9 a.m. to 10 a.m., during the month of July, the average time devoted to ruins trips remains rather constant until the hour 4 to 5 p.m., when it drops sharply, reaching a "low" between the hour of 5 to 6 p.m. During June this hour marked the peak.

GRAPH NO. 4: Average length of museum trips.

This remains fairly even, except during the hours of 11 to 12 noon and 12 noon to 1 p.m., when we find a "high" in the graph for July. During June these hours showed a pronounced "low." From 5 to 6 p.m., this month, the greatest "low" occurred. During June, this hour marked the great "high."

It is to be understood that the length of the trips is determined almost entirely by the interest shown by the visitors. Last month it was hoped that a comparison between the graphs for this and last month would show a marked similarity. Instead, the June graph appears to be reversed during July. Of course, the June graph was for a short period, and perhaps -- perhaps -- next month's graphs will compare favorably with those for this month.



If not, we shall be convinced -- as we are, to some extent, already -- that there is neither rhyme nor reason to these visitors, their interest, or visiting hours.

It is interesting to observe, from a perusal of the register, that the majority of our visitors who come before or after the hours from 8 a.m. to 5 p.m. are local people -- people from the towns of Coolidge and Casa Grande and Phoenix, in the main. It would appear that word has gone around that we are on duty at all hours. We have quite a number of "repeaters", and, sad to relate, they often explain that they have some engagement in Phoenix or Tucson, are a bit early, have been through the ruins often before, but must find some way "to kill time," and so they pay us a visit. However, many of our "repeaters" are people who have been here numerous times before, and who explain that they "never get tired of going through." That is quite encouraging, and it is a pleasure to take them through.

Quality of visitors during July compared quite favorably with that of visitors during June. Again one is forced to observe that the most interested visitors seem to be the winter visitors, with some few exceptions.

It is quite obvious that the difference in time spent in the ruins and in the museum is due, primarily, to two factors: First, the average visitor who has been on his feet for some thirty minutes, going through the ruins, is somewhat foot-weary, and a chair would be more inviting than another trip of some twenty-five minutes through the museum, no matter how interesting the museum display and lecture might be. Second, the material in the museum is not arranged to the best advantage. The average visitor, when questioned regarding the service and the museum, expresses a desire to see displays of material that will be self-explanatory; also, the wish to see photographs of Indians making pottery has often been voiced. Visitors often have been questioned regarding the museum displays in which they were most interested. So far as the main room is concerned, the reply is invariably, "the glass case containing the cremation burials." As to the "skylight room," where we have quite a collection of miscellaneous material, the jewelry, arrowheads, shell bracelets and rings seem to attract more interest than the general collection of material from Montezuma Castle, the miscellaneous collection of pottery typical of other regions, etc.

♥ Charts suspended on the walls above eye level are almost always overlooked.

Cards bearing detailed information are almost never read, whereas short titles invariably are read.

It would appear that more photographs, models, short titles, and self-explanatory displays are needed. As a suggestion, shell bracelets could be shown in the various stages of manufacture -- starting with the unworked shell, then the shell partially rubbed-down, and, finally, the completed bracelet. We have such specimens now, but an orderly arrangement of the specimens, with short labels, would be better. The same would be true of rings. The making of arrowheads could also be shown in this manner. Photographs taken on nearby reservations, indicating the various stages of pottery manufacture, from the digging of the clay, through the various processes, including firing and decorating, to the completed vessel, would be valuable, especially if accompanied by actual specimens of pottery in the various stages of manufacture. These are merely a few suggestions, but visitors have been questioned regarding them, and the ideas have met with decided approval.

When visitors are told that this is headquarters for the Southwestern Monuments system, and learn that from here we control some twenty-five National Monuments, they are usually surprised, and indicate a decided ignorance of the National Monuments system, and of other monuments in the system.

With two of the above matters in mind -- the fact that the visitors returning from the ruins to the museum are usually somewhat tired, and would appreciate a brief rest; and the lack of knowledge regarding other National Monuments -- a lantern-slide projector was recently set up in the museum. A temporary screen, about three by four feet, made of tracing paper in a frame, was made, and occasional parties of interested visitors given a ten-minute illustrated talk on other National Monuments, as an experiment. The interest displayed was most marked. These days being decidedly warm, and the visitors being decidedly warmer from their walk about the ruins, they were grouped in the draft between two doors in the museum. Those who had complained of the heat very quickly forgot it, through their interest in the few slides displayed. Though the illustrated talk took but about ten minutes, visitors were noticeably rested after it, and cooled off by the short time spent in the draft between open doors, looking at the slides.