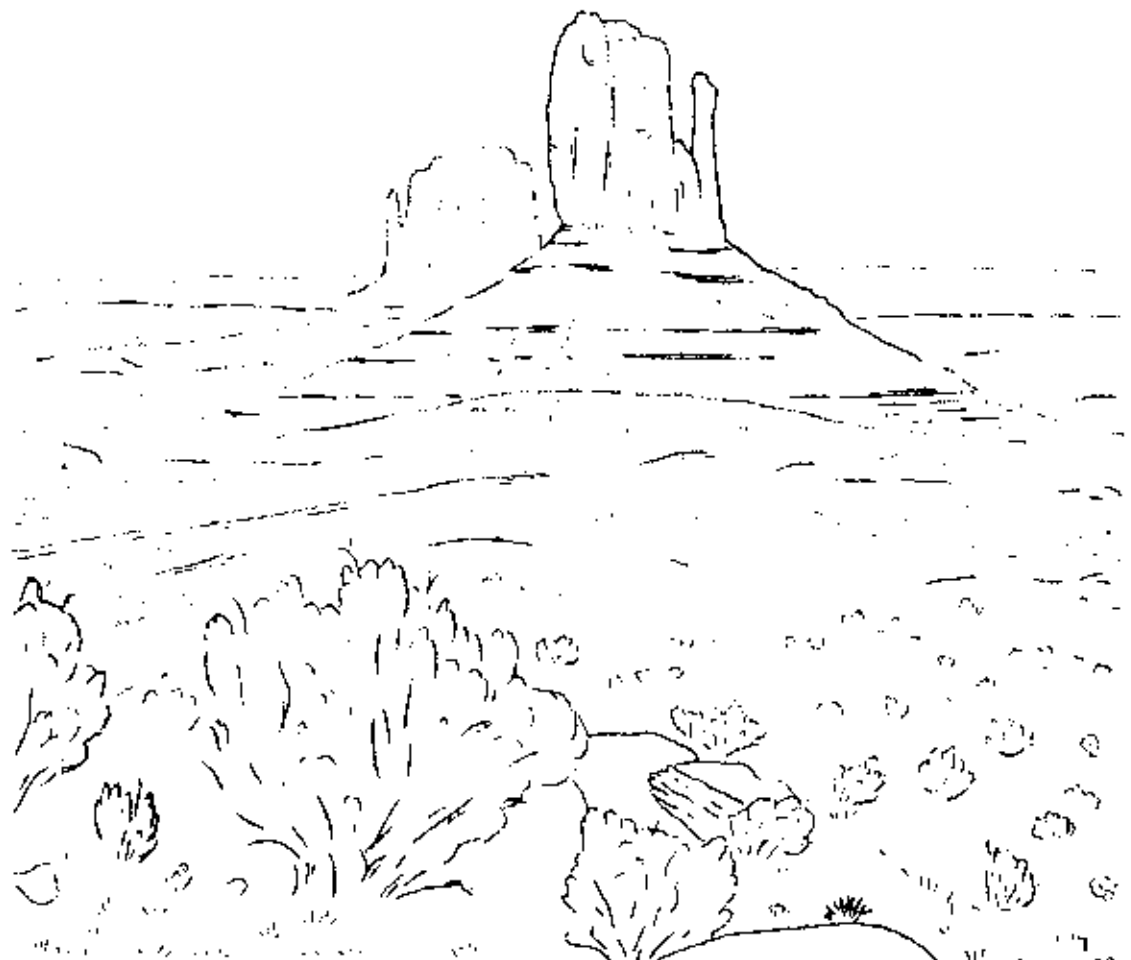


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# SOUTHWESTERN MONUMENTS

MONTHLY REPORT  
SEPTEMBER 1933

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MONUMENT VALLEY ARIZONA



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UNITED STATES  
DEPARTMENT OF THE INTERIOR  
OFFICE OF NATIONAL PARKS  
BUILDINGS AND RESERVATIONS  
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, October 1, '33.

The Director,  
Office of National Parks,  
Buildings, and Reservations,  
Washington, D. C.

Dear Mr. Director:

September has passed and, while the thermometer at our headquarters is still playing around a hundred, there is a fall feeling in the air and in the course of another two or three weeks we will be able to wear a coat to work.

Weather for the month over this district as a whole has been good and the roads have remained in good shape for travel.

In the northern part of the district visitors will decrease and where we have men in charge of monuments they will begin to lay out the winter work and prepare to do those things which were left undone in the rush of the summer visitors. In the southern part we will begin to key up and get ready for the busy season of the year.

Over the district as a whole we could handle more visitors than we are getting but if they don't come to us we have enough other work to keep us busy.

REPORT OF ASST. SUPT. ROSE.

"Early in the month we were able to comply with the request of Dr. Chas. B. Lipman, Dean of the Graduate Division, University of California, for a sample of earthen wall from a prehistoric ruin. Accompanied by Benny Lee, laborer from time to time at Casa Grande National Monument, I drove to a place between Casa Grande and Florence known as Adamsville. Here were standing walls of the type that met Dr. Lipman's requirements. We were glad that we were able to carry out this request and yet not damage our ruin walls on the Monument in any way.

"Dr. Lipman, plant physiologist, has found colonies of living bacteria in old adobe bricks taken from the walls of the California Missions. He was anxious to obtain samples of prehistoric masonry walls for the purpose of applying his studies to more ancient materials.

"Considerable time was spent in organizing some notes on Petrified Forest for the resources edition of the Arizona Republic.

"This month's report carries an historical sketch of the Pipe Spring National Monument written by Leonard Heaton, Acting Custodian. Leaving headquarters on September 11, Mrs. Rose and I visited Pipe Spring and spent four days there. Measurements of the rates of flow of all sizeable springs on the monument were made.

"While there I met Harry Langley, of the Branch of Plans and Designs.

We went into problems of future development and maintenance of that Monument.  
"Pipe Spring is our only Monument to early pioneers in the Southwest System."

BANDELIER NATIONAL MONUMENT. EDGAR ROGERS, CUSTODIAN.

"Dear Boss:

"September shows 634 visitors, an increase of 16% over the same period as last year. The weather has been favorable to travel, although showers have been frequent. Frost has not yet occurred but cool nights and falling leaves show that fall is near.

"The roof of the quarters was re-covered during the month and it is to be hoped that the leaks are stopped for a while. The old roofing paper was quite rotten; cracks occurred faster than they could be patched.

"Mr. and Mrs. John Will Faris, and Mr. and Mrs. Charles Ansdon were among the visitors this month."

At the end of the month word comes to us that we will have a winter camp of the E.O.W. at Bandelier. Thus El will go from one busy season into another. Sixty or eighty miles of trails to be rebuilt and a general clean-up of the dead and down stuff on the floor of Frijoles Canyon ought to keep a 200 man camp fairly busy during the winter season. We also hope that this camp will mean the release of some of our Public Works money which had been set up for trails on the floor of Frijoles Canyon and down the Rio Grande so we can use it in some much needed construction and thus advance our six year program at Bandelier materially.

CASA GRANDE NATIONAL MONUMENT. HILDING P. PALMER, CUSTODIAN.

"Dear Mr. Birdsey:

"Once again the time has arrived for reporting the activities of the Casa Grande National Monument.

"The most important thing of course is our visitors record and once again we have to report a decrease from the preceding year. In September, 1932, there were 1,286 visitors and in September, 1933, only 1070, a decrease of 216 or about 17%. Our visitors record for the coming year will more truly reflect actual travel conditions, for this year we changed the method and only counted those who were actually conducted through the ruins or museum. Always before, everyone entering the Monument had been counted. During the coming year we will keep a separate record of those who drive in but do not visit the ruins under a guide.

"The 1070 visiting the Monument this month came in 317 cars, an average of between three and four persons to the car. 703, or 65%, were from Arizona and the remaining 35% from 37 other states and Washington D.C., as well as four foreign countries. The whole 1070 were personally contacted on 198 trips through the ruins of Compound A and 182 museum tours. October should see a decided increase in visitors as we go into cooler weather.

"Our yearly travel record shows some interesting statistics: We reported 21,771 visitors for the year, a decrease of only 124 over the preceding year. Had we used the same method of counting as last year we would have shown a decided increase. These 21,771 visitors represented every

State in the Union, the District of Columbia, Alaska, Hawaii, and 22 foreign countries. Arizona, of course, furnished the most with a record of 13,663 or 63% of the total. California was second with 3,114, or 14 %; Texas was third with 607; Illinois fourth with 432; and New York fifth with 370.

"During the year 2,777 trips were conducted through the ruins, an average of over  $7\frac{1}{2}$  trips every day of the year. 2,504 lectures were delivered in the museum, or an average of seven lectures per day.

"A table showing the geographical distribution of visitors at Casa Grande for the travel year is attached.

"The month has been unseasonably hot. Mean Maximum was 101.8; mean minimum was 67.2; the mean temperature was 84.5. The maximum temperature for the month was 112 on the 5th; the minimum was 54 on the 25th and again on the 27th. The total precipitation was .74 inch. There were 24 clear, four part cloudy and two cloudy days.

"Three projects under the Public Works program were started during the month. \$900 had been allotted for camp ground development. 210 feet of new ramadas in accordance with the plans of the Branch of Plans and Design were erected and twenty new picnic tables were constructed. This work has been completed and during the coming month the new and old tables will be painted and five fire places will be constructed. A crew of four men were given a total of 19 six hour days of labor each and two men and a team of mules were employed for seven six hour days.

"\$900 had been allotted for water extensions and a crew of two men have been changing all  $\frac{3}{4}$  inch water lines to  $1\frac{1}{2}$  inch and installing new utility faucets so that it will be possible to water all shrubbery with a maximum of 50 feet of hose. These two men have worked ten six hour days.

"The third project is the repair of two quarters; quarters 3, now occupied by Robt. M. Rose, Asst. Supt., is being given a coat of stucco on the outside to prevent weathering of the adobe walls. Quarters 2, occupied by Ranger Frank Fish, is being remodelled throughout and is also receiving a coat of stucco on the outside to prevent weathering of the adobe. A completely new built up roof is being built on quarters 2; new floors will replace the worn cement floors; hardwall plaster on the inside will replace the sand plaster, and new built in kitchen conveniences will add to the pleasure of the occupants. Ten men have been used on this project for a total of 53 ~~1/2~~ ~~1/2~~ six ~~1/2~~ hour days.

"Labor on all these projects is being obtained, according to the President's instructions, through the National Re-employment Service and it has been found to be a mighty satisfactory method of handling employment. All men furnished thus far have been excellent workmen. Common labor is being paid 50¢ per hour, Senior Laborers, 65¢ per hour, skilled labor helpers 85¢ per hour and skilled labor \$1.00 per hour. We work six hours per day and five days per week.

"All projects are going along satisfactorily. Two projects remain to be started yet; a new residence and walls around the administration building.

"Ranger Fish is occupying the old Superintendent's quarters during the remodeling of quarters 2. Assistant Superintendent, Rose, moved into his permanent quarters during the month. This is Quarters 3 which had been used by Mr. Evenstad. After Mr. Evenstad moved down to Tusacacori and before Mr. Rose moved in, the quarters were given a complete overhauling and were repainted and redecorated.

"Much good to the community has resulted from the labor employed on and the supplies and materials purchased for these projects. So far, these are the only projects under way under the Public Works Program in Southern Arizona.

"Last month I reported the construction and installation of a new water cooler for visitors use together with a few remarks about Landscapers. Under date of September 21st, I received the following from Assistant Architect, Harry Langley: 'Copies of monthly and yearly reports of Southwestern Monuments received, read and enjoyed with special attention given to the write-up on the water cooler. I feel quite gratified that I am almost as famous as Herb Kreinkamp with his out-swinging door.' 'Yesterday I received the photograph of the revised installation and, judging from the tilt of the camera, there must have been something stronger than ice water in the cooler; possibly some form of christening liquid.' In that last paragraph Harry must be waxing facetious; I am sure he knows everyone at Casa Grande is a teetotaler.

"Anyway, the new cooler is a dandy and we admit that its location is much better according to Harry's idea than according to ours.

"And last, but not least, stray cats are not as safe at Casa Grande since the arrival of the new Chief Clerk.

H.F. Palmer, Custodian."

DISTRIBUTION OF CASA GRANDE VISITORS.

Ala.-----8 cars	15visitors.	North Car.-----	5	13
Ariz.-----3652	13663 "	N.D.-----	2	9
Ark----- 6	44	Ohio-----	67	279
Calif.----- 1156	3114	Okla.-----	52	225
Colo.----- 87	265	Ore.-----	21	77
Conn.----- 7	26	Penna.-----	31	189
Del.----- 2	5	R.I.-----	8	24
Florida--- 5	21	S.C.-----	1	6
Georgia--- 5	17	S.D.-----	4	21
Ida----- 8	45	Tenn.-----	6	45
Ill.----- 100	432	Tex.-----	170	607
Ind.----- 30	156	Utah-----	83	98
Iowa----- 27	120	Vermont-----	0	2
Kan.----- 37	117	Vt-----	3	25
ky.----- 6	40	Wash-----	52	170
Louisiana--- 2	18	W. Va.-----	4	24
Mo.----- 4	17	Wisc-----	26	127
Maryland--- 5	26	Wyo.-----	12	42
Mass.----- 18	107	D. C. Columbia--	13	60
Mich.----- 62	219	Alaska-----	0	9
Minn.----- 25	96	Hawaii-----	0	4
Miss.----- 1	16	P.H.-----	0	5
Mo.----- 54	242	Argentina, 3; Australia, 1; Chile, 3; China, 2		
Neb.----- 7	32	Canada, 52; England, 3; France, 4; French Indo		
Nev.----- 29	104	China, 1; Germany, 7; Guatemala, 1; Hayti, 1;		
N.H.----- 10	35	Ireland, 3; Italy, 1; Japan, 4; Luxemburg, 1;		
N.J.----- 1	5	Mexico, 7, 31; Norway, 2; Panama, 2; Porto		
N.J.----- 16	57	Rico, 1; Scotland, 1; Siam, 1.		
New Mex.--- 69	180			
New York--- 76	370			
		Total; 7,226 cars, 21,771 persons.		

CAPULIN MOUNTAIN NATIONAL MONUMENT. HOMER FARR, CUSTODIAN.

My dear Mr. Pinkley:

"I am sorry to report that just a little over fourteen thousand visitors have called upon the Capulin Mountain National Monument during the past twelve months. This is a considerable decrease from the total of the previous year, but I might add that I was unable to control the depression, which I believe was partly the cause of the drop and another large factor was the fact that the latter part of this summer the road up the mountain has been in pretty bad condition. We have not had a cent this summer to repair the road and this gave the traveling public a very bad impression. Of course news like this spreads rapidly to others who will not then drive up over the bad road.

"Here's hoping that we can still find a few dimes to repair the road this fall."

And, speaking of poems; here is a poem on Capulin by Elizabeth H. Emerson which ought to be preserved, so we will just file it here in the monthly report:

Oh! Capulin!  
You stand majestic on the plains;  
Silent and cold and proudly calm,  
Your sides grass-grown and wound about  
By circling paths whereby men scale your height  
And look below to checkerboards of green.  
Upon your rim one gazes into space,  
Far over meadows to mountains clad with snow,  
Or turning, walks within your hollow heart  
And treads on the cinders last to glow and die.

Oh, Capulin!  
In these years long since gone,  
What secret passion burned within your breast?  
Did some wild rage of hatred shoulder there,  
The fruit of envy, jealousy or strife,  
Until, one day, you could no longer chain  
Its mighty forces, and in one upward heave  
Cast forth the evil thing, leaving when done,  
Only a hollow where had stood a graceful peak?

Or may it be that deep within your heart  
There glowed some nobler, warmer fire,  
An unrequited love which burned by night and day--  
Became a pain you could no longer hide?  
Perhaps you could no longer hold your head  
Proudly above your neighbor sister peaks,  
And with one sudden spasm of despair  
Your sorrow burst from its green-clad cage  
And your great heart broke,  
Casting its remnants far and near upon the plain.



CHACO CANYON NATIONAL MONUMENT. HURST R. JULLIN, CUSTODIAN.

"Dear Boss:

"The 662 Chaco visitors for this month came from 19 states, Italy, Germany, England, and Washington D. C.

"The activities of the month have been concerned with catching up on many little things that I did not have time to do during the rush of summer. As you remember, the water ran through the museum in torrents on the occasion of your last visit. It seems to me that we must have carried tons of earth up to the roof to repair it and to prevent the occurrence again. The office roof and the roof of the tool shed have also had a recovering of earth.

"There are several other places that need attention too. These, we hope, will be attended to this month.

"I do not think that I have reported the completion of a small ranada at the back door of the residence. This is for shade for the water barrel. The sun shining on the drinking water made it a little too hot for drinking.

"The report on the matter of the cliff cavity excavation has been completed. A copy is inclosed for your use, and copies have been sent to the various scientific institutions requesting them.

"A group of very interesting visitors came to the Chaco this month, perhaps I should add, as usual. Among them were the following persons:

"General Wood and the staff of National Guard Officers.

"Mr. and Mrs. Clifford Wight. Mr. Wight is a prominent English Sculptor.

"Charles Collier, Assistant Indian Commissioner, came with his staff of builders, to get ideas and plans for construction on the Indian Reservations, so the ancient Chaco architects have at last been recognized.

"Dr. and Mrs. Alexander Goetz, of Germany and Pasadena, spent several days with us. Dr. Goetz has been working at Cal-Tech with Millikan and Einstein.

"Dr. and Mrs. Lee E. Deets, of the Department of Sociology of the University of South Dakota stayed several days. Dr. Deets will return next summer in order that he may complete a sociological study of the Chacoquenos for publication.

"Mr. and Mrs. Hemen were also visitors. Mr. Hemen is here on the matter of conservation with the Interior Department.

"Dr. and Mrs. Seltzer, on research work for the National Research Council paid us a visit. Dr. Seltzer will publish his studies on Physical Anthropology as quickly as he has had the opportunity to get back to the National Museum and complete his studies on the skeletons which were taken from Bonito by the National Geographic Society Expedition.

"I was asked to attend a conference at Santa Fe which was to arrange the details of the construction on the road to Chaco. The Highway Commission met with the various Superintendents of Indian Reservations, Governor Seligman and interested parties. They came after me and I joined the procession. The sum of the deliberations were about as follows:

"The State is to start immediately on the road from Thoreau to Crownpoint. This road is to be piled. The Indian Service will have, by the time you receive this, started a gravelled highway from Crownpoint to Chaco."

Hurst.

If this road goes through as it is planned, Chief, we are going to be badly undermanned at the Chaco by the latter part of the summer next year. Visitors will flock in there as soon as they are assured of a good road.

EL MORRO NATIONAL MONUMENT. E.Z. VOGT, CUSTODIAN.

Mr. Vogt writes, under date of September 22, as follows:

"Dear Pink:

"A heavy lift on a pump weighing several hundred pounds proved too much for me. I loaded the pump onto a truck but crippled my torso for a few days. I managed to drive home forty miles by myself but ever since arriving I have been in bed. It's a great rest for I am getting time to read, write and enjoy the luxury of having my good wife wait on me and serve me with good meals in which she joins me by my bedside. Such rest and treatment will relieve me in three days more, so it's hardly worth while even to make a claim on my life insurance policy.

"I think the most notable news of the month is covered in the enclosed clipping from the Albuquerque Journal in which you will read of the final approval of the Grants-El Morro-Atarque road project. In addition to what I send from the press, I have a letter from Mr. Glen C. Macy, State Highway Engineer, in which he tells me the survey will start at once.

"The short ten mile link from the El Morro and Department of Commerce Air Port to Ramah, is, we understand, to be approved a little later.

"This will be the final outcome of a fifteen years effort to get El Morro on a road which will bring us many visitors as well as provide an outlet to the railway both to Gallup and Grants for a rich region of agriculture and stock interests. The cooperation of the people in signing petitions and writing letters to Governors and Highway Commissions over so many years is highly appreciated.

"On the eighth I met Mr. Glenn C. Macy, State Highway Engineer, at Grants by appointment and brought him over the new road which the Forest Service and the CCC boys have completed for 30 miles from Grants, leaving but 20 miles to build to Ramah. Mr. Macy and I met Ranger Peterson at El Morro and had a short visit there before making the balance of the 200 mile trip I guided him over that day.

"A strong demand for the protection of the perpetual ice Cave and other ice caves further in the lava beds led Mr. Macy to wire me to meet engineer of the Park Service, Col. Elwood and engineer Geo. Bawl of the State Engineer's force at the ice cave for a reconnaissance of the region. Unfortunately my isolation at our sheep ranch resulted in my not receiving the wire in time to meet them, though I hurriedly threw together an outfit of surveying instruments, field glasses, gun, bed and chuck and drove from our home ranch to the rendezvous - the Ice Cave, only to learn the party had been there and gone back to Santa Fe. However sorry I am not to have met them, I feel that they have started a fresh movement for the protection of that interesting area either by Federal or State means.

"Mr. Peterson is greatly missed at the Monument. I had a final conference with him the day he pulled out to re-enter the University of Arizona and was able to thus take over the responsibilities of caring for El Morro with a good understanding of the latest status of all things out there.

"The Monument has been visited recently by numerous members of the National Guard on strike duty at Gallup.

"Col. Staples, of Coolidge, New Mexico, had a party of Vermont friends out recently.

"We regretted not to be able to entertain Mrs. Ickes, wife of the Secretary of the Interior, as we had planned to do, but she left this country

shortly after the Inter Tribal Ceremonial and went to her home in Chicago and Washington.

"Frost still holds off and grass and flowers look fine both in wild and cultivated areas. Wild ducks are arriving at our lakes. Several bears have raided Indian corn fields not far off. Deer are increasing.

Even Z. Vogt."

From Mr. Alfred Peterson, Temporary Ranger at El Morro, who went off duty the middle of September, we have the following report which is the last one from him this season.

"Dear Boss:

"I expect to be ready to leave for Tucson tomorrow, therefore this is my final report for the season. As anticipated, visitors have not been numerous since schools opened, but there have been about 120 at El Morro for the first half of September despite the fact that we have had several days of rain.

"The rains, incidentally, have filled the reservoir in the water cove to the point of overflowing without quite doing that.

"The inscriptions have been gone over with an application of DRIWALL to preserve them against weathering. The housings for translation cards are in a rather incomplete stage as the 'roofs' of wood have not been added. We should have seasoned and planed 1 by 4 stuff for this job; however I tried doing it myself with rough lumber which we had at hand. I found the lumber almost water-logged from rain. It was out of the question to use in this condition, and I doubt if it is yet dried sufficiently to do the work. This is one job I shall do the first thing next season, - if and when I come to this station. The housings, however, are adequately protected with heavy roofing paper as a temporary arrangement. Nearly all the translation cards show water stain, due to having been wet before being adequately protected, and I do not have new ones to replace them. All cards are readable, however. A weak spot in the housings is the joint between the side pieces of the frame and the top piece -- just a little crack about two inches long which was tight at first but opened up due to weathering and lets water in from driving rains. I have plugged up the cracks.

"I too had an invitation to attend the Inter Tribal Ceremony, sent me by the Association, but I thought it no more than a polite reminder not to miss the show. After reading the weekly report and learning of Hurst's three-day sojourn in Gallup at the expense of the Association, I see what a chance I missed. But I doubt if I would have spent more than one day anyhow, because El Morro has some of its best visitors during the Ceremonial and they are entitled to some service.

"Say, Boss, Frank Fish and Hurst Julian are not the only ones that can find potatoes under wild or questionable conditions. A badger has been doing some excavating in a corner of the large ruin on top of the mesa and dug out some pieces of charcoal. Having taken Dr. Douglass' course in tree ring interpretation, and having been requested by him to do some work of this nature, I was immediately passing around the opening of the badger's hole, with the result that I have a large number of small pieces of charcoal some of which may be workable, and - two little potatoes which were growing at the mouth of the hole on top of the ruin. Also there are some eight or ten charred small corn cobs, an Ollivella shell, some bones and a tooth, probably of some animal.

"I certainly was flabbergasted to see the reprint of the letter written to you by one of my campers, but it makes a fellow feel good all over to have such fine people express such flattering opinions of him. These particular campers, as you no doubt know, have done a lot to make this my most satisfactory summer on this job.

"Regarding the write-up of my remarks about deserts, this was a little more than I expected but it is all right with me. Just recently I had a local man tell me that sheep had run over and grazed a field until it absolutely had no more grass on it than a cement floor, to use his own simile. Then he took the sheep off for three months, rain came, and that field now has the best grass he knows of. This incident illustrates several things, (1) what happens when a field is over-grazed, (2) what happens when over-grazing is stopped, which supports Hurst's contention; but if there had not been sufficient rainfall the grass would not have come back, and (3) that this particular field was level, whereas ground on a slope would very likely have been cut by gullies with the first heavy rain, and, after all, it would appear that a great deal depends on the nature of the rainfall.

Alfred Petersen!"

Under the heading: "Some Chiseling Gets U. S. Okoh", we picked the following story regarding El Morro out of the press reports this month.

El Morro, N.M., Sept 21.-- Chiseling, both plain and fancy, was given the hearty approval of the U. S. Government here today.

"And the chiseling was done by 38 members of the Civilian Conservation Corps. "A

"Returning several days ago from a brief visit to Zuni, the El Morro National Monument Custodian found that in his absence the forestry workers had covered a large area of the famed inscription rock - bearing carved messages dating back to 1809 -- with their initials.

"A report to their commanding officers brought the corps members back to the famed rock in double quick time.

"They spent a day chiseling more earnestly than this section of New Mexico had believed it could be done, until there wasn't a sign of an extraneous initial on the gleaming sandstone surfaces.

"The army sergeant whose initials led all the rest lost his rank."

#### GRAN QUIVIRA NATIONAL MONUMENT, MR. W. H. SMITH, CUSTODIAN,

Mr. Smith says, under date of September 22 that he has had 395 visitors enter the monument during the month past, and that they came in 96 cars.

"This shows a decrease in travel as against the same month last year and also as against the previous month this year. Some of this loss can be laid to the fact that our local people are very busy with the bean harvest and cannot spare time to visit.

"Weather conditions were favorable for travel the greater part of the month with but very little rain and comparatively cool, clear days.

"With the rainy season nearing a close we expect to spend the few dollars we have left in repairing the approach road. I hardly think there will be any more heavy rains that would be likely to do any damage.

"Late last Sunday afternoon a nice new shiny coupe rushed up to the mission with two occupants; an elderly lady and gentleman. I walked up to open the museum and show them around but they declined by invitation saying

they were in a rush as they drove 140 miles to visit the ruins not knowing the roads were so bad and now they had no time left to look at the ruins that afternoon as they must go back home to get their parrot in out of the cold. They promised to come back some day soon and spend the day.

W. H. Smith.

MONTEZUMA CASTLE NATIONAL MONUMENT, MARTIN L. JACKSON, CUSTODIAN.

Mr. Jackson reports as follows:

"For the month of September Montezuma Castle had a total attendance of 1,235, with 718 registrants in the building, making the second largest month for attendance this year. Weather conditions up to the last week have been unsettled with two or three very heavy rains in the Valley. Roads have been rough for two or three days at a stretch, but the road workers are keeping them as a whole in better condition than usual. The Government road signs have proven to be a considerable help in guiding visitors.

"I have just learned that two of the Federal Aid projects at the Castle have been approved, so it looks like some more of the Walter Attwell days may come again soon. We will be glad to see him again if he comes.

"The C. C. C. camps have paid us several visits this month, and seem to be a pretty well-behaved and interested bunch of boys. One group of 129 came in the party, and while they were present Ranger Curry lectured to 173 people at one time.

"Zeke Johnson, Custodian of the Natural Bridges National Monument, paid us a visit and we enjoyed his stay. Among other interested visitors was Dr. H. P. Poston, grandson of the first southwestern Indian Commissioner of that name, and who made the old Mexican village of Tubac a town. Dr. E. W. Mitten, of Enid, Oklahoma, who camped with us for three weeks last year, and is greatly interested in our parks and monuments, came again this month from Enid to camp here for a week. Said he just couldn't forget the Castle.

"Mrs. Curry has been visiting friends for the past three weeks in Los Angeles, and has just returned on a single drive trip from the coast. The Mrs. and myself were unable to make our proposed Castle publicity trip from here to Phoenix by boat on account of storms and floods, but intend to do it later.

Martin L. Jackson."

NATURAL BRIDGES NATIONAL MONUMENT, ZEKE JOHNSON, CUSTODIAN.

Zeke lost his notch stick or something last month. At any rate he didn't keep track of the days right and his report got in too late to put in our monthly report. He really did send one and here are such parts of it as are not yet obsolete: "All is well with us out here. It seems that we are getting our share of tourists. There were 27 out this last week in one bunch from Florida. Three big cars went out today from California with 11 people. We about average one car per day and they all seem to enjoy their trip. The roads are in fair shape and the water at the Monument never was as good this time of the year, we have more than had our share of showers out there this year, and every flower in the Canyons has sure done its share to improve the looks of the country. I am sure happy when people come to see me and I try to do my best to make their trip a pleasant one.

On September 27th, Zeke writes as follows: "This has been a pretty slow month -- too much rain, and bad roads. However there have been 161 visitors register and I can count 46 that did not. Most of them were out early before I put the register out, and I am sure there will be at least 40 register before the roads close, making a total of 247.

"The roads are being repaired now and the weather is ideal, so I am sure a lot of people will be out yet.

"I have been doing some more repair work on my trails the last few days."

PIPE SPRING NATIONAL MONUMENT, LEONARD HELTON, ACTING CUSTODIAN.

"My report for the month of September is as follows: Our travel is only one less than last month, 284 for September and 285 for August.

"My travel by months for 1932 and 1933 is as follows:

<del>Month</del>	'32	'33			
October	140	750	May	120	145
November	107	165	June	175	145
December	50	180	July	375	329
January	15	45	Aug.	450	285
February	20	--	Sept	411	284
March	60	60			
April	117	160			
			Total	2,040	2,494

"I might say in reply to Tom Charles as to starting our report with the amount of travel, that you have to report travel to show that people are interested in your monument; if you didn't, you would find yourself without funds. Then too, it shows that you are busy, or partly so, depending on the amount of visitors. Also it is required that the total travel be sent in to the Washington Office September 30 of each year and a monthly record helps a lot in getting this number.

"I think we have had a wonderful season even though our winters have been so that cars and even horses could not travel through the latter part of January until the fore part of March. The high months of travel in both years are September and October because of the work on the Zion tunnel road at that time which threw traffic around this way.

"Our weather is still dry with the nights getting cooler as we near winter. Last Wednesday, September 20th, a good rain hit just north of us but it seems that out on our flats it just can't rain at all and the feed condition for live stock is going to be very bad here. Most of the cattle men are wanting to sell most all they have this fall if possible, for they figure there will be a great loss if there is any snow at all.

"I enjoyed the visit of Bob Rose and his wife very much. They got here September 12th just at dusk and stayed until the morning of the 17th. We also had Mr. Langley and Mr. Stevens of the Park Service and Mr. Ford of the Union Pacific System on the 15th. I feel that Mr. Rose and I went over the needs of this Monument pretty thoroughly, especially the water question as we measured it and checked it over several times. I know that what has been the common belief as to the water flow here at Pipe Springs has been too high. Actual measurement is about 41.7 while I had always thought it to be

about 75 gallons per minute.

"To have some one come in and suggest things that ought to be done and criticize my work and how I am doing things is like sending a battery over to town to have it charged, for I have found that I was getting stale on some things and now have more pep and a desire to do more in making the Monument attractive and desirable to see.

"We gave Mr. and Mrs. Rose a chicken supper at Moccasin on September 15th. Most of the people around Moccasin attended and we surely enjoyed the occasion. Tell Bob that several of the women have told me to ask him to come back and sing again as he has one of the best voices for singing out of doors that they have ever heard.

"Nine of our Indians have got work in one of the C. C. C. camps for the winter and a large per cent of our unemployed are in these camps; there are five of them within 150 miles from here. "

"Leonard Henton."

TULACACORE NATIONAL MONUMENT, GEORGE L. BOUNDY, CUSTODIAN.

Mr. Boundy reports as follows: "Visitors for the month, 426. This has been the quietest month since I came to the Mission. Nogales, Sonora is doing away with much of the red tape necessary in entering Mexico and the Chamber of Commerce in Nogales is putting on an advertising campaign to bring tourists into Mexico by this route. I believe this will bring many visitors into this country during the winter season.

"Martin Evenstad joined our force here at the Mission the first of the month and we have been overhauling the pumping plant and lighting system and getting things in general fixed up for the winter season.

"Treasure hunters are very much in evidence at the present time. They spend quite a bit of money among the local people in the way of labor, guides, etc. If it wasn't for our police dog it would be necessary for us to look after the Mission and grounds during the night time as they are all anxious to do some digging on the monument.

"Superintendent Pinkley paid us a short visit and looked over the water problem with us. As always, we were very glad to see the Boss.

"The last heavy rains have raised the water levels in the wells and have done much for the cattle men in the way of feed.

"There are many places in this vicinity of interest to the students of Arizona history. I have heard many interesting tales of the country lying between Mt. Lemmon, Oracle, and Winkelman. I spent a night and two days in that country and I believe there are a few portions of it as rich in historical and archaeological material."

"George Boundy."

WHITE SANDS NATIONAL MONUMENT, TOM CHARLES, CUSTODIAN.

Mr. Charles has another good report for this month and it is full of information for the use of our other men who can direct visitors down to Alamogordo if they know what they are talking about when they direct them.

"There is so much to report this month. Sunday, September 3rd, was full moon and over one hundred car loads of picnickers spent the evening at the sands. Eighteen car loads from the town of Tularosa cooked their

suppers on the fireplaces furnished by the Alamogordo Chamber of Commerce. Three car loads came from some place in Oklahoma. The others came from El Paso., Las Cruces and Alamogordo. It was a lovely party and a perfect evening. The next evening 65 Rotarians and Rotary Arms ate their supper at the sands. They gathered on the highest drift and waited for the moon to come up over the Sacramento after which they listened to M. E. Opler of the University of Pennsylvania discuss the habits of the Mescalero Apache Indians. Over 125 visitors were at the sands that night. The ideal weather has attracted many to the sands for the evenings this month.

"This too, is the season when the lakes are red at the Great White Sands. The Chamber of Commerce has attempted to discover the cause for these lakes and springs in the monument area changing to a crimson every fall. The 'Nominal' Custodian volunteered the services of the automobile and a delegation of the Chamber of Commerce joined in the search for the red lakes. We found the phenomenon in a small salt spring just off the National Monument area. Unfortunately we were a few days late to catch the said red lakes in their bloom, the main body of water was changing to a milky color, true to form, while around the edges of the pool the water was still red. A powerful magnifying glass showed plenty of life in the water but no trace of color in any of this life. At present we have a sample of the water at the Chemical Laboratory at the State College hoping that Prof. Botkin may give us some light on the question, 'Why are the red lakes red?'.

"It looked for a time this month like we would surely have a 200 man C. C. C. camp at the sands this winter. We may not get it, but we have learned something. We know that 'truck trails for administrative purposes' though hard surfaced and polished, are not 'roads.' Truck trails come under the Act, but roads, never! The Chamber of Commerce advises that truck trails are good enough; all they want is some way to get out to the red lakes, the soda beds, to Miracle Point, where the 'Giant's Tracks' and the Southwest's most renowned mirages occur, and to the Sands themselves. If we do not get this C. C. C. camp we will always feel that it is because our first report went on page 15.

"By the way, we appreciate the publicity you gave us in stating that we are 'Head of the biggest Gyp outfit in the U.S.' But why the limitations? You cramp our style, Mr. Superintendent. Say the largest in the World if you please!

"Did you notice that on our maps the little black line through the White Sands Monument indicates a secondary road? Well, the 'Nominal' Custodian objected. The New Mexico Highway Department, on their 1933 map, show this as a first class all weather highway. Eighteen miles at the Las Cruces end of it will be let for completion on October 3rd. We hope that 17 miles at this end and past the Sands, will be called for completion on Oct. 5th.

"We are unable to give you a count this month. The State Highway partial count shows 138 cars per day. The Las Cruces Chamber of Commerce partial count shows 180 cars per day, while our own partial count, for one day only, shows 106 cars from seven a.m. to seven p.m. Probably 25,000 people have passed through the Monument this month.

"We get lots of reports on wild life at the Sands. All the way from white mice and white lizards to white coyotes, but this week, for the first time in 20 years, we had a report of a mountain lion there.



"One of the cowboys in that vicinity found the lion and shot at him, wounding him slightly. The man followed him for two or three miles into the sands and when night drew near the man went home. Next morning investigators found that the lion had turned back when the man did and followed the man's tracks up to within a hundred yards from camp. Their foot prints showed plainly on the sand.

"There seems to be no occasion for weather report or road conditions. Our Chamber of Commerce advertises 345 clear days per year and there is never a day that cars are held up on the White Sands Road on account of weather conditions."

"Tom Charles"

Which is a good report and just to show Tom that it's all right I might point out that again he has made page 13 in the report and we will see what comes of it.

And about those 'truck trails' Tom, I have heard of some pretty funny truck trails being built in the Southwest, but I haven't heard of any being built by the Park Service, have you? I mean any of the kind you refer to. My advice is; let us so live that when the Head Man's inspectors come around, as they will sooner or later, and check up on any C.C.C. work, we can look them right square in the eye and tell them to go jump in the lake! Our Chief and the Head Man of our Department are both square shooters; to them a truck trail is a truck trail so far as I have observed.

After reading your ideas about a weather report, Tom, I am wondering why you don't explain the change of color in your lakes yourself. Seems to me it may be a fairly simple matter: when the alkali content gets too high and becomes dangerous to life, what more natural than that the lakes should turn red? Then when the alkali content is reduced to the safety point they would of course turn green. You drop one of those Chamber of Commerce weather reports in one of those lakes and see if the alkalie content doesn't go up and turn the lake red in 30 minutes.

AZTEC RUINS NATIONAL MONUMENT, JOHNWILL FARIS, CUSTODIAN.

Mr. Faris also lost his notch stick and came mighty near not making this month's report. A little more speed next month, Johnnie, if you want get into the A class where Aztec belongs.

"After all the start we had the fore part of the month, our visitors total 1090 for September. This is a decided drop over last year. The heavy rains of the past two weeks may account for a partial drop.

"Ranger Thompson left me on the 24th. His services as usual were beyond all that is expected of a ranger and I feel very fortunate in having such a man to help out here.

"I am getting in touch with Chuck Richey relative to our museum plans. Official notice has been received to proceed and as soon as I can get any information, I will pass it on to you."

IN GENERAL, Chief, things have gone all right among the Southwestern Monuments during the month of September.

Cordially,

*Frank Richey*  
Superintendent.

SUPPLEMENT TO THE  
SEPTEMBER REPORT OF THE SOUTH-  
WESTERN MONUMENTS  
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Dealing with people and things  
of general interest.  
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We want to put into the record for future reference the following report from Custodian Hurst R. Julian, of the Chaco Canyon National Monument, on some work done at that Monument during the past summer. The report follows:

The cliff cavities from which we have taken some rather remarkable artifacts of the ancient Chaco quenos were, like so many other things, discovered quite by accident.

The story involves several other considerations and studies. It started with a search for the probable origin of the fill or debris which covers so many of the ruins of the Chaco. Apparently the several feet of material was washed in, or had been carried in by the winds to serve as a protecting mantle for the most remarkable ruins in the United States.

Some of the debris fell from the tops of the walls, possibly much of it was blown in by the winds, and perhaps some of it had been carried in by flood water. Speculating upon these possibilities, the first step in the rationalization came during a rain storm.

The cliff walls of the Chaco present the appearance of a miniature Yosemite after a hard rainfall. From every water course a stream is poured into the Chaco to fall from the top of the cliff. It was reasoned that possibly there had once been a talus slope at the base of this cliff which had caught the falling water and as a consequence, had been washed into the ruins below.

This thought was considered from every angle of approach. It was repeatedly turned over in the conscious as well as the sub-conscious mind. Verification was sought, or, what is perhaps as well, disproof of the hypothesis. In the ramifying considerations it was realized that if there had been a talus slope of importance, there certainly must have been at least some talus slope houses or villages upon it.

The speculation turned to the postulated talus houses. It was noticed that there was evidence of there having been such dwellings. The cliff wall still bore testimony in the form of the holes which the talus dwellers had chipped into the face for the accommodation of the ends of the secondary roof beams of their houses. Indeed, Mr. J.B. Hamilton, an engineer of the Office of National Parks, Buildings, and Reservations, discovered what is perhaps the first house in the land to have had running water.

Beneath the horizontal row of roof beam sockets, at the base of the cliff near Chetro Kettle, was the lower end of a trough which had been carved in the face of the cliff in such a manner that it caught the rain water from the cliff and conveyed it to the house which once stood upon the talus slope which had partly washed away.

All these ruminations and as yet no thought of the cliff cavities. That connection came during a session of contemplation in a room in Pueblo Bonito which has the not common feature of tall crypts suggesting the all

safe of the more modern residence.

What treasures had these once contained? Had they held priceless turquoise jewels, or had they been fashioned for nothing more spectacular than the deposition of ordinary food stuffs? But the possibility of cliff cavities was suggested.

If some people went to the trouble to build depositaries in the walls of their houses, surely the talus dwellers would have availed themselves of the cysts which nature had provided for them in the wall of the house which was formed by the cliff. If such had been the case, possibly there just might be some little thing that the Cococucnos had overlooked while preparing for the exodus, and there was a possibility that it might still be in the cliff depositaries.

A ladder was secured and placed beneath what appeared to have been a portion of a house. A cavity was found in the cliff wall, and in the cavity was a perfect specimen of a planting stick as perfectly preserved as though it had not lain in seclusion these many hundreds of years.

The success of the operation led to further investigation with the consequences that much of the material which is exhibited at the museum of the Chaco Canyon National Monument was recovered in this manner.

CATALOGUE OF MATERIAL TAKEN FROM CLIFF CAVITIES  
PRIOR TO JULY 8, 1933.

- A-1-c. Specimen mount containing shelled corn, beans, bean pods, corn stalks, leaves of corn plant, squash seeds and rind, pigeon nut shells, and misc seeds, including one that suggests an oat seed.
- A-2-c. Restored pot containing corn cobs, three of which have sticks inserted in the ends.
- A-3-c. Restored pot containing corn cobs, two of which have grains of corn on them.
- A-4-c. Restored pot containing corn cobs.
- A-5-c. Restored pot containing bits of squashes, rind and as yet unidentified stems.
- B-1. Bottomless basket,  $5\frac{1}{2}$  inches in diameter, approx. 3 inches in height.
- B-2. Circlet of Yucca leaves,  $2\frac{1}{2}$  inches in diameter, outside measurement.
- C-1-a. Specimen mount containing cords of various sizes, evidently made of Yucca fiber; yucca leaf thong.
- M-1-c. Cardboard box containing bits of corn cobs, stalks and leaves, bits of grasses, and what appears to be the rind of a cactus fruit, bit of feather quill which may have been carried into the crypt by rats or a bird; piece of what appears to be lignite, and several as yet unidentified odds and ends.

N-1-c. Cardboard box containing unidentified bones which seem to be of rodents, and possibly sheep; also a bit of horn unidentified. (This cavity had been occupied by some bird such as a hawk or owl.)

P-1-c. Cardboard box containing miscellaneous assortment of potsherds, plain, smooth, coiled (corrugated), and decorated.

R-1. Wood carvings which, when viewed from one position, represents a human head, including a painted face, head dress or hair, and neck. Measurements taken from top to bottom, approx. 5 inches; from front to back approx.  $2\frac{1}{2}$  inches. When held with face upward, the figure suggest the head of a bird, or possibly a round bodied fish. The ear of the man forms the eye of the bird, the man's nose is a crest for the bird, and the neck of the man is split to represent the open mouth of the bird. The man's hair or head dress is a neck for the bird.

R-2. Wood carving similar to R-1.

W-1. Arrow Shaft without feathers or head, but having sinew bindings, one of which is stained green.

W-2. Arrow shaft with sinew bindings; with red band and a black band painted on shaft underneath the feathers, if the feathers were in place. Only the ends of the feathers remain under the bindings.

W-3. Arrow shaft with sinew bindings.

W-4. Ditto.

W-5. Ditto.

W-6. Ditto.

W-7. Hard wood planting stick, approx.  $4\frac{1}{2}$  feet in length, shaped as a gigantic sword. Excellent specimen.

W-8. Bundle of woods bound together with yucca leaf thongs, approx. 6 inches long and  $1\frac{1}{2}$  inches in diameter. This suggests the handle of a whisk broom.

These materials were taken from holes which we have called P.S.-1, P.S.-2, and P.S.-3. These holes are in the cliff wall between Pueblo Bonito and Chetro Kati. Evidence suggests that there will be several more depositories in this wall between these two ruins.

#### LIST OF THE MATERIALS TAKEN FROM THE CAVITY U2.

This cavity is in the cliff wall above the Kin Klet So ruin. It is approximately  $\frac{1}{2}$  mile down the canyon from Pueblo Bonito.

FOUND WEEK OF JULY 8 - 15, 1933.

1. 236 corn cobs of varying sizes and conformation. The larger ones are from six to seven inches in length. The seed rows vary from four to ten. One fragment has been charred.

2. Many fragments of corn stalks, leaves and corn cobs.
3. Three kernels of corn.
4. Unidentified fragments of bone.
5. One black and white potsherd.
6. One fragment of basketry, approx. 2 by 2 $\frac{1}{2}$  inches. Woven of more or less coarse material. Diagonal technique.
7. One fragment of basketry approx. three fourths inch square. Very much finer materials used in same weave.
8. Bits of woven fabric, apparently cotton, dyed red.
9. One beautiful though small fragment of double weave cloth.
10. Bits of blue and white twisted string.
11. Small wads of what appears to be cotton in the raw state. Also bits of material which might be cotton bolls.
12. Fragments of squash rind to the number of 29.
13. Fifteen square knots tied in stripped yucca leaf thongs.
14. One fragment of cordage with two overhand knots tied in it.
15. Seven pieces of small cords.
16. One fragment of twisted osier,  $\frac{1}{2}$  inch long.
17. Two squash seeds.
18. Three Yucca seeds.
19. Several pinon nut shells.
20. Several of two kinds of unidentified seeds.
21. section of feather quill.
22. Two pieces of leather or one piece of leather and one piece of closely woven material.
23. One fragment of stick with two bowls burned in it. Evidently part of fire making apparatus.
24. Bits of mineral pigment. Yellow and pink in color.

CONTINUED EXCAVATION OF CAVITY U-2

1. Agricultural Products and other plant materials.

Maize;

Cobs, 601.  
 Cob fragments, 425.  
 Stalks; 16  
 Husks 8  
 Kernels; 3

Special note;

1 small cob with stick protruding from ~~the~~ stalk end.  
 1 small double or split ear.  
 1 fragment, approx. 1 inch square, matted corn husks.

Squash or Courd.

Stems 21.  
 Pieces of rind 81  
 Seeds 11.

Cotton.

1 cotton boll  
 Several bits of raw cotton.

Seeds:

Pinon shells, 16.  
 Several unidentified seeds of several species.

Woody plant material.

8 sections of reed (arrow reed)  $2\frac{1}{2}$  to  $6\frac{1}{2}$  inches long.  
 Many unidentified twigs, sticks and pieces of wood.  
 Many yucca leaves, usually stripped.  
 Some Juniper bark.

2. Evidence of fire.

2 charred pieces of corn cobs.  
 2 charred pieces of corn stalk.  
 Several bits of charred corn husk.  
 Several pieces of charcoal.  
 1 piece of burned bone.

3. Artifacts. (Materials showing manipulation by the hand of man).

Yucca leaves twisted and stripped as if used as thongs or in basketry, 38.  
 A yucca leaf 5 inches long,  $\frac{3}{4}$  inch wide, containing resinous substance?  
 3 small pieces of yucca leaf with resin.

Knots. (square)

30 knots tied in stripped yucca leaf.  
 1 knot tied in Juniper bark.  
 1 knotted stick or twig  
 1 narrow strip of yucca leaf, approx. 16 inches, coiled, two knots.

Braid;

1 square knot tied in braided material.  
 1 3 strand braided stripped yucca leaf.  
 1 three strand braided rope, 3 inches long.

String;

Several fragments of white cotton string.

Rope and Cord;

1 square knot tied in cord, (yucca fiber).

2 pieces of cord knotted together.

1 piece of cord 16 inches long.

1 piece of cord 10 inches long.

1 piece cord 8 inches long.

5 shorter pieces of cord.

27 fragments of cord.

1 piece of rope 5 inches long.

Cord;

11 examples of cord with the midribs of feathers, as prepared in the feather cloth shroud. One piece seems to have fur binding in place of the usual feathers.

Fashioned wood;

1 small stick whittled or gnawed.

1 stick 4 inches long, ground to a point at one end.

1 section of arrow shaft  $2\frac{1}{2}$  inches long, showing string notch and bound in two places with sinew.

Basketry;

1 piece of basketry material, of stripped yucca leaves, 3 inches square. Possibly part of sandal or mat. Diagonal technique.

Weaving;

1 small piece of red cotton cloth.

Leather;

8 small pieces.

1 piece of leather with cotton rolled in one end.

2 leather thongs, 4 and 9 inches long.

Miscellaneous;

1 small clay ball  $\frac{3}{4}$  inch in diameter.

Small fragments of pink pigment.

Potsherds;

2 smooth unprinted potsherds.

1 black on white sherd with complete handle.

4. Bones;

Human Bones;

Section of parietal bone.

2 fragments, possibly of temporal.

Animal Bones;

Several skulls, entire or in part, (Rodentia).

Fragment of skull, unidentified.

4 Lower jaws, (Rodentia).

1 Lower jaw, unidentified, possible carnivora.

Several skeletons of feet and legs, jack rabbits.

Vertebrae, unidentified.

1. skeleton almost complete, (Rodentia).

Proximal end of tibia.

CAVITY U-2. This cavity presented an interesting problem; namely, were the evidences of human life and living purposely deposited in the cavity, or were they merely carried there by pack rats?

1. It was obvious that the rats had occupied the cavity for a long time; evidenced by the manure and nest material, also skeletal remains.

2. All the material excavated or recovered as listed above, moreover, could conceivably have been carried in by the rats.

3. However, evidence of purposeful use of this cavity was found. In the entrance to the cavity, the most accessible place, 16 inches beneath the surface before excavation and well beneath any evidences of rat occupation, was found evidence of a fire, and very possibly of ceremonial life. The latter is inferred because of the presence of reeds, firmly fastened in the hard soil, and embedded with small stones. These reeds were placed in definite relationship to each other, at right angles. One was found standing in a vertical position.

It seems possible that these reeds were placed in position as prayer sticks, although no painting, bindings, or markings of any sort were detected upon them. Our Navajo informant, through our interpreter, said that no such sticks were ever used among the Navajos to his knowledge. Also, he said, these sticks were very old, for no such reeds are found here today. He thought that the Zunis use such sticks for prayer.

#### CONTINUATION OF THE EXCAVATION OF CAVITY U-2.

Sixteen inches below the surface level of the debris in the cavity were found many reeds set in the ground, securely fastened at their ends by the hard packed sand and small stones. These reeds seem to be placed in a rather definite position, at right angles to each other, giving rise to the theory that they were prayer sticks.

Stevenson's account of Navajo ceremonials, in the Eighth Annual Report of the Bureau of American Ethnology, 1886-87, and the Handbook of the American Indian, however, tell only of reeds decorated in some manner, - by tying on feathers or other paraphernalia, or at least by painting - which may be called prayer sticks. It is conceivable, however, that these reeds found in cavity U-2 although completely undecorated, might have been used as a temporary or emergency offering. But as excavation proceeded, many more reeds than the first set observed appeared to be placed in such cross positions. Twenty-four of these were removed. Above and between such firmly fastened reeds, was a matting or padding of small, unidentified sticks, corn husks, juniper bark and yucca leaves. In one section in the east corner of the mouth of the cavity, slender yucca strips actually were woven in checker board fashion to form a crude mat. The whole matting and reed foundation was embedded in a layer of ash 4 to 6 inches deep, which extended out beyond the mouth of the cavity in a semicircle  $1\frac{1}{2}$  ft. in radius. This layer of ash was completely excavated, and along with much charcoal several pieces of feather cord and wrapped corn husk were found.

The remaining surface material from within the cavity was removed, producing enough material to warrant the time and effort involved. Most spectacular was the find of a sandal which had been woven of the filaments of the yucca leaves. It was in a fair state of preservation.

Although it is obvious that the rats had long infested the cavity, most of the surface material seemed to be sorted somewhat; i.e., the raw cotton was found within a half hour; squash rinds and stems appeared commonly in one part of the excavation. The corn cobs and the square knots which were tied in



yucca leaves proved to be ubiquitous; and the cordage appeared pretty well throughout.

The stone forming the mouth of the cavity is blackened by smoke on the east side, apparently the roof of the cavity is also blackened. The fire or fires appear to have been pretty well at the entrance. This cavity differs from the other four which we have investigated in that it is on the level of the top of the talus slope which may also be a ruin mound.

Above the cavity is a broad crack in the stone. This crack has been sealed with masonry. It was photographed and the masonry removed with high hopes, but there was nothing in the space behind the sealing. Possibly this work was done to prevent the water from dripping into the cavity below.

#### CONTINUATION OF THE EXCAVATION OF CAVITY U-2.

Following is the list of materials which were found in the excavation of the Cavity U-2 during the following week.

The list has been divided into two parts; surface material listed separately from that found in the ash layer 16 to 22 inches below.

#### Materials found at the surface.

##### Agricultural products and other plant materials.

##### Maize:

Cobs 235  
Cob fragments 130.  
Stalks 6 fragments.  
Husks Several pieces, some charred.  
Kernels 1, outer covering only.  
Special note; one cob with stick in stalk end,

##### Squash or gourd;

Stems 5 and a few fragments.  
Rind 38 pieces  
Seeds 3

##### Seeds;

Pinon shells  
Several unidentified.

##### Woody plant material;

3 large Yucca leaves.  
1 Section of reed, 8 inches long.  
2 Sections of reeds 2 inches long.  
Several pieces of juniper bark.

##### Evidence of fire;

1 Charred corn cob. (At least this cob had not been carried into the cavity by rats.

##### Charcoal.

Charred corn husks and sticks.

##### Artifacts.

15 square knots tied in yucca leaves.  
3 long strips of yucca with overhand knots tied in them.  
2 square knots tied in small bits of cord.  
1 knotted fragment of cord tied around two yucca leaves.  
22 fragments of yucca leaf twisted as though used for thongs.  
Cord; 1 piece, 16 inches long.

Cord;

- 10 fragments of cord 5 inches or less in length.
- 1 fragment of crude cord made of yucca strips.
- 5 fragments of cord feather or fur wrapped.
- 1 fragment of wrapped cord 5 inches long.
- 1 piece of cord 5 inches long, wrapped with yucca leaves.
- 1 piece cord 12 inches long, wrapped with feathers.

Basketry;

- 1 piece coarsely plaited strips; diagonal technique; 4 inches wide by 6 inches.
- 1 small fragment of yucca fiber, possibly part of sandal.

Weaving;

- 1 sandal, front part missing; finely woven with design on under side, warp of yucca fiber cord, weft of yucca fiber filaments.
- 1 fragment of another sandal.

Leather;

- 5 small fragments.

Potshards;

- 1 Black on White.

Bones;

- 1 fragment of human skull. (Possibly parietal).
- Many unidentified bones, including,
  - limb bones of rodents.
  - limb bones of larger animals.
  - Fragments of vertebral column.
  - Fragments of jaws and skulls, mostly rodents.

Materials found at the level of the ash; 16 to 22 inches below the surface.

Agricultural and other plant material;

Maize;

- Cobs, 14
- Fragments of cobs 24
- Stalks 2
- Husks, Several large pieces, some charred.

Squash or Gourd;

- Stem 1
- Rind 27 pieces and many small fragments.
- Seeds 27

Other Seeds;

- Red Beans, 3.
- 2 unidentified grasses, one appearing to be a kind of oats.

Woody plant material;

- Reeds. Larger reed set in ground.
  - d, twelve inches or more in length.
  - 1 21 inches long.
  - 15 eight inches or over.
  - 35 three to six inches long.
  - 36 three inches or less.
- Special note; one reed 3 in. set in ground in vertical position.

Materials found in association with reeds, forming matting.

1 Yucca leaf, 19 inches long.  
1 Yucca strip 12 inches long.  
Other Yucca leaf strips.  
Many small sticks.  
Juniper bark.  
Corn husks.

Evidence of fire;

Layer of ash 4 to 6 inches deep  
Much charcoal and charred wood.  
2 Charred corn cobs.  
Charred corn husks.  
Many fragments of burned bones.  
Pieces of adobe mud baked in the fire.  
1 piece of clay, fired, bearing impression of reed.

Artifacts;

Cordage and Feather work;

1 square knot tied in yucca cord.  
1 cord bound with feathers, 20 inches long.  
1 ditto.  $6\frac{1}{2}$  inches long  
1 ditto 5 inches long.  
2 ditto, fragments.  
2 fragments of feather cord, showing great thickness at one end.  
Bits of feather cloth.  
1 Circlet of rope, 12 inches of rope fastened with long splice.  
1 rope 20 inches long.  
Raw Yucca fiber, unworked.  
1-fragment of twisted rope-- yucca.  
1- piece of rope  $3\frac{1}{2}$  inches long.  
7 fragments slender cord 2 to 5 inches long.  
2 fragments of large feather (Turkey?)  
Bits of fine downy feather.  
2 pieces unidentified material wrapped in corn husks 2-3 inches long.  
Other fragments of same material.

Worked wood;

1 small stick, sharply pointed.  
1 stick 7 inches long, knob on end.  
1 7 inch section carefully rounded stick.  
1 large chip of wood, ground to an edge.

Potsherds;

15 Black on White.  
4 indented.

Bones;

Several fragments of limb bones, unidentified.  
1 vertebra, unidentified.  
1 fragment of jaw bone, unidentified.

MATERIALS OBTAINED FROM CAVITY U-1.

Hundreds of corn cobs.  
2 pieces corn stalk.  
1 round or squash stem.  
2 square knots tied in yucca leaves.  
1 rounded stick fastened as part of bow.  
Some unidentified bones.

## CONCLUSION.

It appears that these cavities were used as depositories by the people who lived in the talus slope houses. P.S.-1 yielded the planting stick previously described. It is ten or twelve feet above the present ground level and in the vertical face of the cliff. It is approximately 18 inches in diameter and eight feet deep. There were bits of hard silted mud and stones at the mouth of the cavity which suggested that the entrance had once been sealed with masonry, at least part way from the bottom.

P.S.-2 yielded well. It, too, had evidence of some sort of masonry across its entrance. The mouth was large enough that it admitted a person. For six feet I crawled along this narrow passage and then emerged into a larger cavity which permitted me to almost stand. It is from this room inside the cliff wall, that most of the materials listed as having been recovered prior to July 6, 1933, were taken. The cavity seemed to have been of natural formation.

P.S.-3 was just a small round hole, two inches in diameter from which I took an arrow shaft.

U-1 did not yield as well as the others. There was much material of less spectacular nature. It is in the cliff wall above the ruin Kin Klet So.

U-2 is in the same vicinity as U-1. It is large enough that one could crawl inside the entrance, but could go no further. The material was scraped out with a long handled hoe.

This imposing list of materials has been taken mostly from two of the hundreds of cavities which we believe are in the cliff walls of the Chaco. This is a new field for investigation, and one that may occupy us for several years. The P.S. cavities are on land belonging to the Government. I have not opened more of them because we have no place to even store, much less display the material. Our little museum is already over crowded.

The U cavities were opened under the direction of the University of New Mexico Field School. I represented the School and the work was done under my supervision by the students. Mrs. John Y. Kour, anthropologist, of Hunter College, New York, did most of the careful, painstaking, important work.

The presence of the feather cloth, similar to that in shrougs, and the bits of human bones, does not, in my opinion, lead to the hope that we will find, in the cliff cavities, the solution of the mystery of the disposal of the Chaco dead. We must search for the dead in another place. While I should not be surprised to find several bodies in these cavities, I do not think that there will be enough of them found to make a great deal of difference in the obscurity surrounding the fate of the bodies of the thousands of people who must have died in the Chaco.

Hurst R. Julian  
Custodian, Chaco Canyon  
National Monument.

And while we are putting reports into the record, here is a letter which Mr. Heath, of Pipe Spring National Monument, wrote in answer to an inquiry about his monument.

In the year 1856 President Young, of the Mormon Church, sent a party

of men into northern Arizona and on into the Navajo Country to make peace with the Indians.

At a camp made at what is now known as Pipe Spring National Monument, while on this trip, some of the men began to banter 'Gunlock' Bill H. Asplin, who was the best marksman in the company. They claimed he could not shoot a hole through a silk handkerchief hung up by the two upper corners only at a distance of 50 feet. Bill took the wager and shot several times but failed to make the holes in the piece of silk.

Probably thinking there was some trick about the matter, Bill turned to Dudley Levett and said; "If you will put your pipe on that stone by the spring so the bowl points toward me, I will shoot the bottom out without cracking the rim." The pipe was put on the rock, Bill took aim and fired and the rim of the pipe bowl remained on the rock. From this episode comes the name of Pipe Springs.

The next date of interest is when Dr. James M. Whitmore and Robert McIntyre came to Pipe Springs to start a cattle ranch in 1863, building and living in a dugout just east of the large fort. In the winter of 1866, on January 8th, the Navajo and Piute Indians took the sheep belonging to Whitmore, and when the two men went out to get them back they were killed about four miles southeast of their home.

Whitmore had one of his sons with him that winter, who was eight years old, and when the men did not return at night but Indians came and took all they could carry off without entering the dugout where the little boy was, the next morning the boy started to walk to St. George, Utah, 96 miles west. When about ten miles from Pipe Springs, he met some men coming toward the Springs. Ward was soon sent in and the Utah State Militia came out and soon took revenge on the Indians. Six Piutes were killed and I have learned just this spring that none of them were with the Indians who took part in killing the white men.

From the Whitmore estate, the Mormon Church bought Pipe Springs for a place to build a fort for protection from the Indians and also for a cattle range to take care of the Church tithing cattle. The fort was built in 1869-70 under the direction of Anson P. Winsor, whence it is sometimes called Winsor Castle. It afterward came into the hands of private owners and continued to change hands until 1923 when Johnathan Heaton and sons transferred the title to the United States to be made into a National Monument.

Pipe Springs became the first telegraph station in Arizona when the Deseret Telegraph line reached Pipe Springs in December, 1871. This line is still in use as a telephone line running into the town of Kanab.

The purpose of making Pipe Spring a National Monument was to preserve this fort as a relic to Western Pioneer Life. It is the only Monument we have in the west that is kept by the United States as a monument to western pioneers.

Our hope is to restore the fort to its original state with what furniture we can get of the old pioneer days and arrange it in the rooms as it was when the fort was in use in 1870 to 1880.

I might add that up until 1918 there was watering here every day 2,000 to 5,000 head of cattle depending on the time of the year. Also that it was from here that the big herds left for market, consisting of 1,500 to 3,000 head to the herd and four or five herds going out each spring and fall.

ATTENDANCE RECORD  
FOR  
SOUTHWESTERN MONUMENTS

As reported by wire to the  
Washington Office Oct. 1.

Monument.	1932	1933
Arches-----	480	425
Aztec-----	8322	7546
Bandelier-----	4169	3906
Canyon de Chelly---	395	435
Capulin-----	25000	14000
Casa Grande-----	21895	21771
Chaco Canyon-----	2725	5817
El Morro-----	2700	2467
Gran Quivira-----	3844	3563
Great Sand Dunes---	500	550
Hovenweep-----	400	425
Montezuma Castle---	14000	13899
Natural Bridges---	344	654
Navajo-----	300	375
Pipe Spring-----	2100	2548
Rainbow-----	325	385
Tuzigoot-----	13758	8669
Tupatki-----	850	1250
White Sands-----	---	12000 part year.
Yucca House-----	240	300
Total. -----	102,342	101,185

Attendance records, alone, don't mean very much. It takes a lot of explanation to make them talk and then, if you don't look out they won't tell the truth. Some places we have a lot of visitors to whom we can give no service because of a lack of personnel. You can't look at the above table and tell much about what we have done this past year.

I think we will overhaul our methods of keeping track of visitors this next year and see if we can't make these figures do some talking on their own account. At present, from the places where we have men stationed, one man reports only those visitors who are guided, another reports all who enter the monument, which is a widely different figure from those actually guided, another doesn't count his visitors but guesses at his attendance. As a result of all this, the figures are rather sketchy when it comes to basing plans on them looking toward development in the future.

As comparative figures, this table will do pretty well, though there are one or two places where a change in methods of counting has weakened the figures for comparison. In general, however, since the same methods have been in use at most of the places for several years, comparisons will be pretty accurate in showing increases and decreases. Reasons for increase and decrease vary widely and are not shown in the figures; each change needs its own explanation.

## PERSONNEL.

As we write this word comes to our desk that Mrs. Hurst R. Julian had her appendix removed, the operation taking place at St. Mary's Hospital in Gallup, New Mexico on September 28. She was resting at the time of writing and recovering nicely. She expected to be out of the hospital on October 7 but would remain in town with friends for some time before trying to make the 100 mile trip back to the Chaco over those rough roads. Congratulations are in order to Winnie for having come through the operation successfully and getting rid of a very troublesome appendix. Forty five miles from a doctor is no place to have an appendix go to skipping stitches on you and some of us have worried a good deal this last year or so over the possibilities of that situation.

Gay Rogers is lamenting the loss of three of her most cherished cups which were broken in the recent move of her furniture from Tuzacocori to Barfollier. She says that, all told, that leaves six cups with three varieties present. Also the movers broke some knobs and pretty jiggers off her furniture. And worst of all, while she was down here seeing to the moving of the furniture she got some Mexican blue glassware across the line at Nogales, which she valued so highly that she carried it back with her to protect it, and then after getting it to the top of the Canyon, had it broken on the way down to the quarters. The Boss is happy, Gay, that he was 900 miles away when you were unpacking that stuff up in the Ranger Quarters! Suppose we invent some rubber dishes and cast iron furniture which explodes when a knob or jigger is carelessly broken off? Bill and George might be surprised to handle a piece of your furniture too roughly and the next moment find themselves explaining to the gentlemen with horns how they got there and what they were doing with the right hind leg of a lady's dressing table in their hand.

Johavill Harris lost a trip to the coast last month. He wired us to make sure he had annual leave coming; packed the old car; and ten minutes before he started, got a fire from Dorothy that she was on her way home.

Bob and Marie Rose had a pleasant trip up to Pipe Spring National Monument during the month. Bob was looking into water distribution matters and his report will be ready for the Washington Office soon.

Jack and Mrs. Jackson, from the Montezuma Castle National Monument, plan an interesting boat trip down the Verde River to the Salt and thence down the Salt to Phoenix. We hope Jack will write it up for the next monthly report.

Ranger Martin Everssted is settling down like an old timer at Tuzacocori National Monument. We had to go down at the end of the month to get him to sign the pay checks and found him hard at the job of showing visitors the interesting features of that monument.

Hugh Miller has also settled down and become one of the Southwestern Monuments gang. He certainly struck us at about the worst time a book-keeper and general accountant could pick out. Not only do we get orders for a

new kind of a report about once a week, but a couple of times we have received orders on how to make up the books a month ago and it is far from pleasant to tear a set of books apart and put them together again about four weeks after the events have happened. Nobody realizes better than us that the Washington Office has been having a rather hectic time of it during the reorganization, but the field men have been running circles around themselves too.

And with it all comes the gentle snow from Heaven in the way of banks of white paper covered with rules and regulations and orders and reports and instructions on the EOW and the C.C.C. and the NIRA and the Public Works Act.

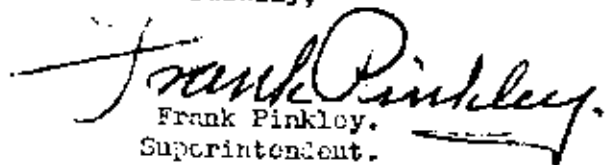
While at Pipe Springs, Bob Rose met Harry Langley and they went over proposed developments and maintenance at that Monument. Leonard and Mrs. Heaton had Harry, an assistant, Mr. Stevenson, a Union Pacific photographer, Bob and Marie at lunch. The citizens of Moccasin gave a chicken roast in honor of the Park Service personnel represented there that day but Harry and his party had to return to Zion. Dutch oven chicken, home made bread and appetites sharpened by cool brisk weather combined to make the occasion very successful.

And we are going to have a winter camp of the C.C.C. in Bandelier, so there won't be much chance for Ed and Gay to get lonesome for lack of folks around, and we are going to find some new slants on trying to keep track of the paper work of such a camp with headquarters 900 miles away.

We aren't throwing up the sponge yet, but how much extra paper work will it take to entitle us to an extra clerk? It seems to me we are handling about as many thousand square feet of paper per month as some of those quart size parks that rate two or three folks on the office force.

Anyway, we lived through September and had a good deal of fun doing it, so we will do our best to worry through October and here's hoping the worst of the re-organization is over and we can settle down to the business of taking care of the winter tourists. Southwestern Monument employees please note that all this ruckus of roads and trails money, C.C.C. camps, Public Works Act money, paper work, and every thing else, is based on Mr. and Mrs. Mohn Doc and the kids and good service to them. Good service is aided by all these things, but it doesn't absolutely depend on them, and it may sometimes be absent when they are present. Good service first, Loyalty second, and it is only a matter of time until the other things come.

Cordially,

  
Frank Pinkley,  
Superintendent.



10-159  
(May, 1931)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

STATUS OF PERSONNEL


Southwestern National Monuments  
National Park for the Month of September, 1931

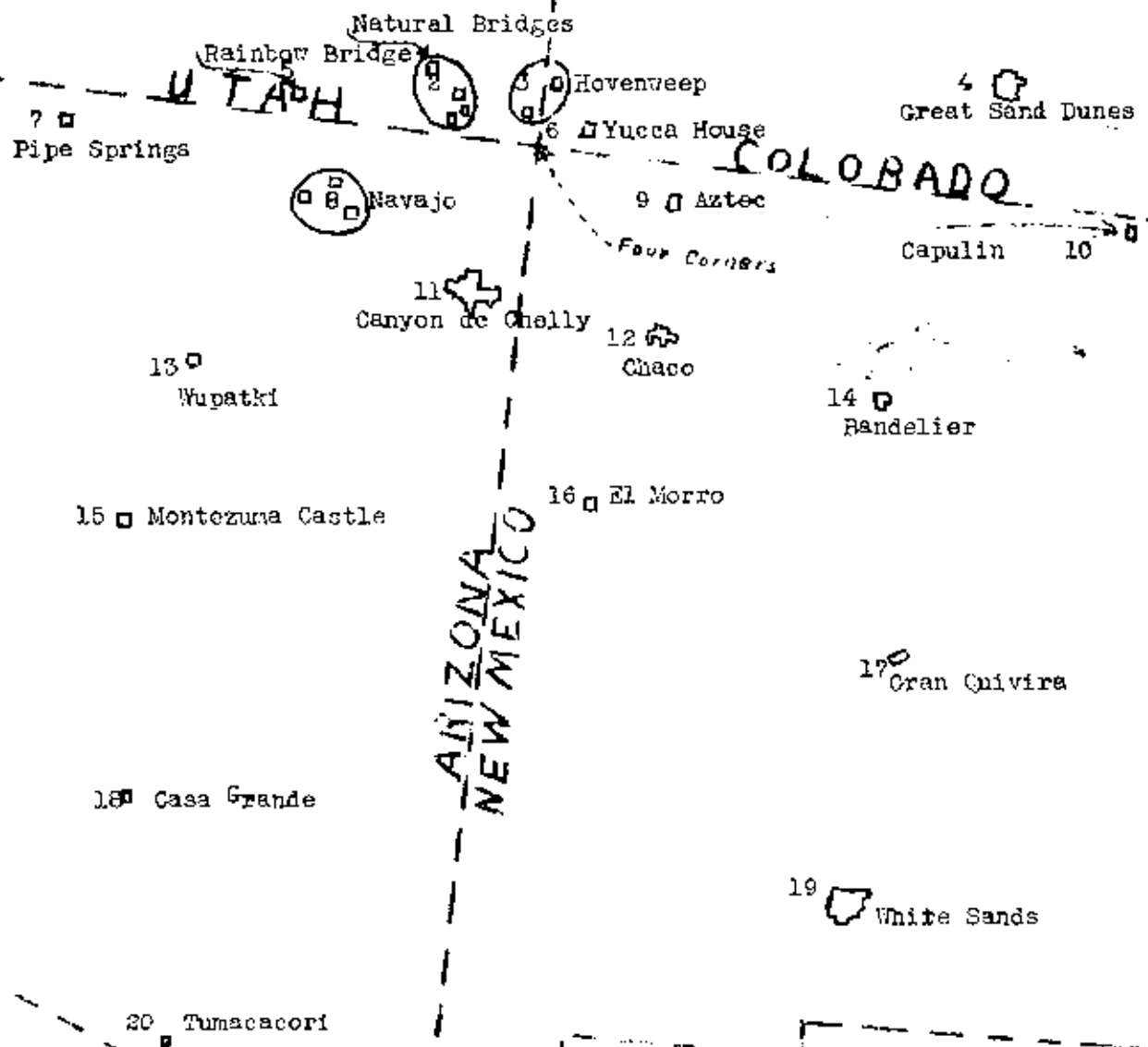
	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
Number of employees beginning of month	29	4	30	1
Number of additions	0	28	0	37
Total	29	32	30	38
<b>Reported by Petrified Forest</b>	9*			
Number of separations	8	15	8	37
Number of employees close of month	19	17	22	1
Number of promotions during month	0	0	0	0
Aggregate amount of annual leave taken	1	0	0	0
Aggregate amount of sick leave taken	1	9	0	0
Aggregate amount of leave without pay	0	0	8	0

\*Personnel for Petrified Forest National Monument will be reported by that monument as an independent unit.

LIBRARY  
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NATIONAL PARK

# SOUTHWESTERN MONUMENTS

AREA 1  520.24 59. MI.  
Arches



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE