

SOUTHWESTERN MONUMENTS MONTHLY REPORT

JULY 1935



DEPARTMENT OF THE INTERIOR
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SOUTHWESTERN MONUMENT PERSONNEL

HEADQUARTERS Southwestern Monuments, Coolidge, Arizona: Frank Pinkley, Superintendent. Hugh M. Miller, Acting Assistant Superintendent. John H. Diehl, Associate Engineer. Robert H. Rose, Assistant Park Naturalist. Dale S. King and Louis R. Caywood, Junior Park Naturalists. Robert Cole, ECW Clerk. Eric Reed, Roving Ranger.

GENERAL FIELD MEN: Charles A. Richey and Harry Langley, Resident Landscape Architects. J.B. Hamilton, Associate Engineer. Andrew Clark, Topographer. J.H. Tovrea, Chief Engineering Aide. A.B. Pinkley, Howard Williams, Walter Smith, C.E. London, Carl Schmidt, Knox Borden, Rodmen.

FIELD STATIONS:

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

CONDENSED REPORT

Coolidge, Arizona
July 1, 1935

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

Dear Mr. Director:

The Condensed Report on Southwestern Monuments activities for July:

TRAVEL

	<u>July, 1935</u>	<u>July, 1934</u>	<u>July, 1933</u>
Aztec Ruins	1675	1691	1314
Bandelier	2092	1723	----
Capulin Mountain	5000	6000	----
Casa Grande Ruins	1198	1163	944
Chaco Canyon	672	384	2056 (?)
Canyon de Chelly	163	----	----
Chiricahua	1766	1368	----
El Morro	381	472	293
Gran Quivira	950	404	436
Montezuma Castle	1847	1896	1361
Natural Bridges	----	46	----
Navajo	86	----	----
Pipe Spring	930	258	329
Sunset Crater	909	----	----
Tonto	324	----	----
Tumacacori	712	526	725
Walnut Canyon	1982	1822	----
White Sands	4755	----	----
Wupatki	268	90	----
Actual reported registration	25,710	17,483	8,195

The 13 Monuments which reported both in 1934 and 1935 showed an increase from 17, 797 to 19,473---1,676 visitors, or 9.4%.

The eight Monuments which reported both in 1933 and 1935 showed an increase from 8, 195 to 10,457---2,262 visitors, or 27.6%.

Thus, it would appear that 1935 as a travel year is 9.4% better than 1934; 27.6% better than 1933. The betterment over 1933 probably should be even more, taking into account the dubiously high figure reported from Chaco that year.

WEATHER

Weather has been far from normal in the Southwest this month. Cloud-bursts occurred at Canyon de Chelly, Wupatki in the north and at Chiricahua

CONDENSED REPORT (CONT.)

in the southern section. Northern New Mexico and southern Arizona seem to have experienced cooler weather than usual, while other sections have produced warm, dry weather broken by spotty showers. Gran Quivira in New Mexico seems hardest hit by dry weather---conditions there are as bad as last year.

Some hindrance to visitor traffic can be attributed to threatening weather and unceryain roads.

FIELD TRIPS

Between July 9 and 18, Park Engineer Diehl and Naturalist Rose visited Bandelier, Chaco Canyon, El Morro, Canyon de Chelly, Walnut Canyon, Montezuma Castle, and Tonto National Monuments on a field trip concerned with engineering and educational matters.

On July 15, Junior Naturalist Caywood met Assistant Director H.C. Bryant at Douglas. They spent two days in Chiricahua, visited Tumacacori and Saguaro, and arrived at Southwestern Headquarters on the 18th. Dr. Bryant was accompanied on a trip to the Southwestern Arboretum at Superior, Gila Pueblo at Globe, and Tonto National Monument on the 19th by Superintendent Pinkley, Park Naturalist Rose, and Junior Naturalist King.

On the 19th, Caywood rejoined Dr. Bryant, taking him to Canyon de Chelly National Monument, returning to Grand Canyon by way of the Hopi villages. From the Grand Canyon, Dr. Bryant resumed his trip westward by train.

Between July 24 and 27, Engineer Diehl and Assistant Superintendent Hugh Miller visited Walnut Canyon, Sunset Crater, and Wupatki National Monuments, and spent some time in Flagstaff on business.

ENGINEERING ACTIVITIES

Engineer Diehl spent the month supervising going work at the Monuments listed above in his itineraries.

Office work has been confined to map preparation and data recording.

Field parties at Chaco Canyon completed the fence line survey and made a topographic survey of 22 acres of headquarters area; at Walnut Canyon began topographic survey of proposed headquarters area; at Chiricahua continued cross-sectioning the Bobita highway preparatory to flattening grades and landscaping, and established many lines and grades; at Bandelier, set many alignment stakes and established grades for E.C.W. projects.

Engineer Hamilton started paper work for the paving project of the parking area at Aztec, inspected and aided the sewer and water supply pro-

CONDENSED REPORT (CONT.)

ject at Canyon de Chelly National Monument.

E.C.W. ACTIVITIES

BANDELIER

1. Headquarters comfort station completed to ceiling height.
2. South wall of utility project completed, as well as walls of warehouse and gasoline station building.
3. Utility yard excavation approximately 50% complete.
4. Warehouse wall footings about 25% completed.
5. Tree spraying work against Eastern Tent Caterpillars started.
6. Large crew worked quarrying and shaping building stone.
7. 396 lineal feet of stone guard rail and in addition, 79 feet of footing in place on entrance road.
8. New campground project started: firebrick linings in place in fireplaces and ten grills completed.
9. Small amount of obliteration carried out.

CHIRICAHUA

1. Bonita road maintenance and repair carried on by large crew.
2. Campground dip grading completed, and materials for pouring concrete in place.
3. Large masonry head wall near headquarters completed.
4. Headquarters comfort station 60% complete.
5. Spring development completed except for fencing, although work was retarded by cloudburst.
6. Sugar Loaf Trail backsloping and cleanup almost complete.
7. An additional 200 feet of Edho Canyon Trail completed.
8. Sara Deming trail now completed for $1\frac{1}{2}$ miles.

PERSONNEL

1. Louis R. Caywood became the second Headquarters Junior Park Naturalist by promotional transfer from status as Park Ranger at Casa Grande National Monument.

2. The following men assumed duties as acting rangers pending confirmation of appointments as temporary rangers: Lewis T. McKinney at Chaco, July 14; James D. Harritt at Canyon de Chelly, July 18; J.W. Hendron at Bandelier, July 19; and Erik Reed as traveling ranger for Arches, Yucca House, Hovenweep, July 19.

VISITING PARK SERVICE OFFICIALS

Assistant Director H.C. Bryant visited Headquarters the 19th and 20th, and other places in the field on dates stated above under Field Trips. Resident Architect Langley and Associate Forester Wirt dropped into Headquarters for short business sessions late in the month.

Cordially,

Frank Pinkley, Supt.

PROPOSED: MONUMENTS

Since so many references to proposed Monuments are appearing in these pages, it might be well here to describe briefly some of the areas under discussion,

Kofa Mountains

This area has been inspected by Superintendent Roger W. Toll of Yellowstone National Park, E.C.W. State Parks Supervisor Evison, Assistant Wildlife Technician Grater, Assistant Landscape Architect Keeling, Regional Geologist Wegemann, and Assistant Park Naturalist Robert Rose.

The Kofa Mountains are situated in central Yuma County, Arizona, about 35 miles airline east of the Colorado River, and about 50 miles directly northeast of Yuma. Included in the discussed area are the Kofa, Castle Dome, Eagle Tail, Dome Rock, and Trigo Mountains---all massive and rugged. Main interesting features are several groves of native palms, the only ones in Arizona, and the only Washingtonia palms in the United States outside of California. Also a pleasing association of desert flora, fairly interesting geology, and an opportunity to preserve one of the ranges of the Bighorn sheep.

Brgan Pipe Cactus

An area southwest of the Ajo Mountains in southwest Arizona includes a good growth of this species of cactus, which is second in spectacular appearance to the giant saguaro, but is larger than any other cactus in the United States. The species is remote and seldom seen by visitors. Only in this part of the state or United States is this cactus found. The flora associations of the region are interesting, and many Bighorn sheep can be protected who are now being illegally hunted.

Sierra Ancha Cliff Dwellings

A group of very fine Pueblo IV cliff dwellings located in precipitous canyons of the Sierra Ancha Mountains northeast of Phoenix. For further description, see Dr. Emil Haury's report on Cliff Dwellings of the Sierra Ancha, a publication of the Gila Pueblo, Globe, Arizona.

This area requires further inspection and study before action is taken, but undoubtedly should become a National Monument.

Area south of Manuelito, New Mexico

There has been a recent movement by local people to make a National Monument of a canyon and butte area south of the trading post of Manuelito, located on Highway 66 in western New Mexico.

In the proposed area are a series of fine ruins, it is claimed, and early structures may be found. The section is claimed to have spectacular beauty, and would be accessible to the large number of travelers on this transcontinental highway.

REPORTS FROM MEN IN THE FIELD

NAVAJO

By Milton Wetherill, Acting Ranger

Visitors from June 18 to July 20: Be-ta-ta-kin, 86; Keet Zeel, 25. Three visitors from England; three from Hawaii.

Plum trees at Keet Zeel are coming along fine, with a good crop of potatoes at Turkey Cave.

There was a rock fall at Be-ta-ta-kin on July 17, but no damage was done to walls.

There will be a large party here July 28---part are to go to Keet Zeel; part will stay here. Will try to handle the party so they will get the most out of the trip for the time they have.

The Rainbow Bridge-Monument Valley expedition is working in the Canyon. The mapping crew is camped at Keet Zeel.

I obtained my bird banding permit and bands last year. Banded five White-rumped Shrikes two miles south of Kayenta last year but have done no banding at the Monument.

This is a very rich area for bird life, and no work has been done in this section. Be-ta-ta-kin Canyon is a natural feeding ground for birds, as it has both feed and shelter. Woodhouse Jay, Junco, and Green-tailed Towhee were the only species to come in for feed I furnished.

Have made up three Junco and one Woodhouse Jay skins since I have been up here---these birds were found dead. Need a collectors' permit as there are several birds here that can be classified only by the skins. I do not like to kill birds and would do it only for the purpose of establishing records for the Park Service.

I hope to start trapping as soon as I can make the trip to Kayenta for the traps you sent me.

GRAN QUIVIRA

By W. H. Smith, Custodian

Report time approaches and I will try to submit some of the activities of the Monument for the past month.

I find my register to show 950 visitors entering the Monument in 175 vehicles from nine states. This is the largest registration I have made in any single month since I have been stationed here.

GRAN QUIVIRA (CONT).

One reason for the unusual registration of the month was the County singing convention held at Gran Quivira on June 23. On that day I registered 520 persons. That is one time (and the only time since I have been Custodian here) that I could not give every visitor a little of my undivided attention. But they were just coming in so fast that day that I did well to keep them registered.

I got two of my boys to help me watch and see that things were orderly, and to give them the very best brand of service possible considering we were so crowded for time.

The Fourth of July brought quite a registration also but not to compare with that of June 23. The rest of the month has been slightly above the average for visitors.

July 11, I hired a couple of local boys to drag the approach road. It had become rutted pretty badly down the center, and I was afraid if there was a big rain it might start washing the road. After making two round trips they obliterated the ruts and leveled the road bed. I think it will be safe now even if rain comes.

If there were some way to get travel spread over the entire surface of the road there would be small danger of it ever getting rutted enough to start washing, but all vehicles use the same set of ruts except when they meet and have to pull around each other. Naturally the ruts form down the center of the road bed, and have a tendency to drain all water down them, and on a long grade like this one, water accumulates quite a force toward the lower end.

On July 14, Reverend Huff, of Lovington, N.M., came here on his way to Corona, N.M., to a singing convention. Mr. Huff, having quite a congregation with him, assembled his party in the Mission and preached to them. Afterward they went on to Corona, where the Huff sisters gave a song recital. They are a famous quartet who sing quite often for broadcasting.

Weather still continues to stay dry here and all vegetation is thoroughly parched. Crops are drying up here and there isn't any grass. It seems that it is as dry or possibly worse than last season at this time.

WHITE SANDS

By Tom Charles, Custodian

Our visitor list grows constantly. Last month we had more than 802 registered, and this month we have had 1,182---an increase of more than 47% of daylight visitors.

Three percent of these are from Alamogordo and vicinity and the other 97% are from points more than 75 miles away. A close count on registration

WHITE SANDS (CONTINUED)

some weeks ago showed that about 40% of the daylight visitors registered and practically none of the night visitors take time to put their names on the book. On the basis of 40% registration we have had 2,955 daylight visitors this month.

The number of evening visitors is uncertain. Every moonlight night there are from 50 to 100 people there. To others, moonlight seems to mean but little. They come to enjoy the cool, soft sand, the freedom from noise, from people, and because they can relax here with no insect life to bother them. There are from five to 15 car loads of these people at the Monument every night, moonlight or not. We estimate 1,800 of these nightly visitors each summer month. They are largely local and do not register.

On the basis of calculation above, the total visitors list this month was 4,755.

Those who registered represent 32 states and four foreign countries. Texas leads with 479, New Mexico 383, Oklahoma 86, California 41, Illinois 24,

We have another count of cars which may be of interest. Until June, 1935, our Monument has been located on State Highway No. 3 from Las Cruces to Alamogordo. At that time this road was designated Federal Highway No. 70, which runs from the seacoast in North Carolina to Los Angeles. State Highway No. 3 past the Monument has been hard surfaced for many years, but the new Federal marking will no doubt bring improvement and will lead many tourists this way who would have hesitated to follow State Highway 3. This road is already one of the main arteries of travel in the Southwest. I have secured a count on it for 40 minutes a day over a period of 60 days and it shows that an average of 18 and three eighths cars go through the Monument every daylight hour.

Traffic men tell me that to multiply this hourly count by 15 will give us accurate estimate of the 24-hour traffic. This process gives us 275 cars through the Monument daily. If the line of reasoning is correct, then we have more than 100,000 cars through the Monument annually.

You will be interested to know that we have completed the water well a quarter mile north and east of the turn-around, and have installed a pitcher pump according to the specifications of the Health Department.

It is an improvement that has been greatly needed. Many of our guests have expressed their uppermost feelings while visiting at the Sands in the heat of the day by writing on the register "Water, Water", "Oh, for a drink," "No water any place," and even more forceful declarations of the need of water.

The new well is only six feet deep but it has an abundant supply of water which stands at about 56 degrees Fahrenheit. The chemical analysis

WHITE SANDS (CONT.)

shows some magnesia, some sulphur, lots of lime, and a little salt. After trying it out on the local personnel all summer, we feel safe in offering it to the public insofar as any unfavorable effects are concerned. It "tastes", but not enough that one suffering from thirst will refuse to drink it.

A local cowboy thinks this well will make the Sands an ideal health resort. "There is lime for the rickets, magnesia for the stomach, sulphur for a spring tonic, and always a double dose of violet rays," is the way he puts it.

The high light of the month was a full days visit from Dr. H.C. Bryant, Assistant Director. Dr. Bryant seemed to enjoy every minute of his time at the Monument, but at that I am sure that my pleasure was greater than his.

Another incident which livened things up around the White Sands headquarters was the 15-page article in the National Geographic illustrating the White Sands with 12 full page pictures. Text was furnished by Dr. Carl P. Russell and pictures by George Grant and Editor Grosvenor himself.

Other Park Service officials who visited us were Mr. and Mrs. Charles Brill of Washington and Tom Boles of Carlsbad. It was a real regret that this last named group came after closing hours and we did not get to meet them.

CHIRICAHUA

By. Charles E. Powell, Acting Custodian

m Our travel is increasing. Average daily visitors since June 1, 33. Average daily visitors for past eight days, 45. Total registration since June 1, 1,766. Average Sunday registration, 117.

Chiricahua was honored when Dr. H.C. Bryant and our brand new Junior Naturalist paid us a two day visit June 16 and 17. After a short visit to Massai Point and the Echo Park Trail, we visited the Indian Caves on the Stark Ranch and looked over a few pueblos in Pinery Canyon, visited Mr. F.H. Hands, Rustlers Park, Cave Creek, and missed Mr. John Hands. The result was something like this: The Ranger started to show some visitors around the Monument, and was shown more than the visitors.

Never was that far from the Monument before, while working. My first visit to Rustlers Park and Cave Creek. Learned something about Indians, and saw Louis Caywood pick up an arrowhead beneath our feet, which was seen by no one else. I still think that the darned thing wasn't there until Louis bent over, and that he is sort of a magician.

Received a hundred shipping tags to be used for temporary labels, and have all the tress and plants in our vicinity so marked that a visitor

CHIRICAHUA (CONT.)

has only to read the label to find what they want to know about our vegetation.

Dr. Bryant thinks a trail could be built across the road from the campground, about 18" wide and a half mile long, which would serve as a Nature Trail where I think nearly all of our interesting trees and plants may be seen. I have mentioned the trail before, but if there is any reason I should not have it, just blue pencil this item.

Last Friday, we had some little excitement here, when one of the enrollees was reported missing from the Echo Park trail. After a great crew had spent a half day in search, the "lost" one strolled into camp, explaining he had just been "looking around" and had not noticed the time.

One thing was accomplished by this search, however. Several of our lads saw scenery which repaid them for their walk, and many more of the camp personnel will visit the interior of the Monument because of their new enthusiasm.

The C.C.C. boys who are working with me here show real interest in their work. They have access to all the books I have been able to obtain, listen to every bit of talk I give visitors, and when asked any questions they are unable to answer, promptly refer the visitor to the Ranger.

It is not unusual for them to return from a trip over the trails, carrying a few leaves, or a small flower, or a bit of rock, saying: "This lady wants to know what this is," or something like that. The boys have received a lot of compliments, and no complaints so far.

CHIRICAHUA E.C.W.

By Wm. Stevenson, Project Sup't.

Maintenance on the Bonita Canyon road has continued through the month. Several thousand yards of material have been removed in the area where the large slides occurred, and the cut banks have been trimmed to prevent future slides at this point. A large masonry headwall near the Headquarters Area has been completed. Grading has been completed for the dips in the campground area, and all materials are on the ground preparatory to pouring concrete.

The comfort station at Headquarters Area is 60% complete. Masonry walls are constructed and plates and beams are in place. The campground comfort station has been completed.

A cloudburst caused a slight setback in the spring development, but this project is now completed except for fencing. The pipe line trench from the 10,000 gallon reservoir to Headquarters Area is partially dug.

A crew has been working this month on backsloping and cleanup of the

CHIRICAHUA E.C.W. (CONT.)

Sugar Loaf Trail, and this project will be completed soon. Work has been resumed on the Echo Canyon Trail, and 200 feet of new trail constructed. One and one half miles of the Sara Deming Trail location has been completed.

W.H. Wirt, Associate Forester, and Harry Langley, Resident Landscape Architect, made a very complete tour of the work projects and gave helpful advice concerning present and future projects. Fred Winn, Supervisor of Coronado National Forest, visited this camp July 24, and it was agreed to establish a fly camp at Rustler Park about August 1.

CANYON DE CHELLY

By Robert R. Budlong, Custodian

Visitors for the month totalled 163. Of these, 40 drove into the canyons in the car of the concessionaire or in government cars equipped with big tires, the canyon having been impassable the entire month for cars equipped with ordinary tires. 112 visitors drove to the rim of the canyon, and 46 of these descended the trail to White House. Six persons rode horseback within the canyons, and five descended Bat Trail in Monument Canyon.

Temperatures have been moderate, 98 being maximum on the 12th; minimum, 44, July 4. Total rainfall, .09 inch, with .08 inch falling on July 14.

Assistant Director H.C. Bryant arrived at this Monument July 21, and was here all day the 22nd, leaving the morning of the 23rd for Grand Canyon, in company with Louis and Winnie Caywood. Bob Rose and Jack Diehl were here on the 14th. Assistant Engineer Hamilton has been in a number of times during the month.

We have moved twice since submitting the last monthly report. I am writing this with a typewriter parked on a box bearing the label "Arbuckles Ariosa Ground Coffee." My chair is the floor. As the personnel of the Indian School here at Chin Lee increased, more quarters were needed, and we had to move from our old quarters to a smaller room.

Then we had to move from the smaller one, and there were no more rooms to be had. Finally located one room in a little stone house at the Mission of the Franciscan Fathers, a mile from Chin Lee, and we completed moving into it two nights ago.

We have it completely equipped with all modern inconveniences. Water and plumbing? Well, we have running water---that is, we have to run up the road about a mile to get it, bringing it back to the room in a big can. And then the true beauty of our water system becomes apparent: I bought a 20-gallon water barrel, equipped it with a wooden spigot, painted the barrel bright orange, with black bands, lettered it in black letters, "Budlong's

CANYON DE CHELLY (CONT.)

Best", and that barrel reclines on a cradle in a conspicuous place in the room. Into that barrel we pour our can of water, and draw it from the barrel by the spigot. Visitors to our room, upon beholding the barrel, invariably complain of thirst, and when we obligingly draw a glass of water from the barrel, they seem somewhat disappointed.

Huge piles of impedimenta occupy most of the available space. Of course, we share the room equally, even though we are somewhat cramped for space. I, being the head of the house (hope the H.C.W.P. doesn't read this) naturally made an equitable division of the room. I claimed the north half of it for my own, the remaining half belongs to both of us, and the bureau belongs to the H.C.W.P. That bureau is made of three empty coffee boxes, stacked one upon the other. Our one and only table supports the two bird cages in which are our three pet parakeets, Bozo, Warp, and Woof. There being little remaining floor space, the H.C.W.P. has had to go for a walk, while I occupy said space in writing this report.

Work has started upon the P.W.A. project here, which is the construction of a sewer and water system, under force account. Work commenced under Foreman Harry Brown, and fine progress had been made until the afternoon of July 19. That morning there was a good rainfall in Black Rock Canyon, the water came down the canyon several feet deep about 2 p.m., flooded the sewer trench, filled the excavation for the septic tank, and floated out of the trench what tile had been laid.

As I think on the disaster, and as I call to mind the fact that all bids on the Custodian's Residence were entirely too high to come within the appropriation, I would that my tongue could utter the thoughts that arise in me. But if it could, and if it did, and I wrote them down here, you wouldn't print them in the report, so I refrain.

The damage done by flood is rapidly being repaired. To date, 75 yards of earth have been excavated for the septic tank, 275 yards of earth from the ditches for the sewer tile, 27 yards of solid rock have been removed for the water storage tank, 275 feet of sewer tile have been laid, and 175 yards of silt and mud removed from excavations, where it was deposited by the flood. The project is approximately 25% complete.

In my last report, Boss, I told you how glad we would be to get a Ranger here. The afternoon of the 18th, I was rapidly being driven frantic by attempts to move from the old room into this one, guide visitors to Chin Lee, take some of them to the Rim, others down the trail, make trips to sparrow traps, measure rainfall, and I was also attempting to keep an eye on four roads, located several miles away from each other, all at the same time---and as I was attending to these duties, and many others, my Ranger arrived! Words failed me altogether, and I could only shake his hand and squeeze back a few tears (the H.C.W.P. was peeling onions at the time). He is on the job, and doing it well, and I wish again to express to

CANYON DE CHELLY (CONT.)

you my great appreciation. James D. Harritt, or "Doug", entered on duty at this Monument Friday morning, July 19, 1935.

And not only do we have a Ranger, but we have a brand new pickup truck! And, in addition to running well, it climbs the road to the canyon rim, something the old one never would do. Again I find myself groping for words, and realize that I can not even begin to tell you how greatly we appreciate both Ranger and pickup.

But now the H.C.W.P. has returned, and wants to get in the room, so I must relinquish the space I am now occupying, and bring this report to a close.

CHACO CANYON

By T.C. Miller, Custodian

General

Approach roads have been passable all the month with some maintenance to the north. From the Monument Headquarters to Ste Road 55, with the exception of blow sand near the Escavada Wash, that road is in fair shape. Wolf Creek Pass was opened on the 15th and we are glad because visitors ask us about that road every day.

Weather

July has been a warm dry month with high winds and very little rain. Maximum for the month was 93, on the 16th. Minimum was 44, on the 5th. Precipitation of .63" was recorded for the month. The weather box was moved from the trading post to the Custodian's Residence during the last part of the month. It was set up near the flag pole.

Travel

672 people arrived in 185 cars, busses, and passenger trucks, coming from 28 states, the District of Columbia, Canada, and England. Overnight campers, 91.

Special Visitors

Engineer Hamilton, Mesa Verde National Park, arrived and departed June 27. Divisional Engineer Clifford, Soil Conservation Service, arrived on the 8th and departed on the 11th. The purpose of his visit was to estimate the cost of the revetment work to be done at Del Arroyo and Yellow House. Also some work is to be done on the side arroyos that empty into the Chaco Wash.

Park Naturalist Rose and Associate Engineer Diehl arrived July 12, and departed on the 13th.

Dr. A.V. Kidder, Director of Research, Carnegie Institution, Dr. W.D. Strong, Smithsonian Institution, Mr. and Mrs. Gladwin, Gila Pueblo, Mr. Donald Scott, Director of the Peabody Museum, Harvard, and Mr. and

CHACO CANYON (CONT.)

Mrs. Leslie E. Bliss, Huntington Library, Pasadena, California, were among our noted visitors.

Dr. and Mrs. John Keur, members of the Biology Department, Long Island University, Brooklyn, New York arrived on the 16th. As previously reported, the Keurs are making a study of primitive engineering methods pertaining to Threatening Rock. We find the Keurs to be a fine couple. We hope their stay here in the Chaco will be an enjoyable one. Attached to this report you will find a report on the Threatening Rock written by the Keurs.

Mr. Hillis L. Howie, Director of the Children's Museum of Indianapolis, and party of 20 people arrived on the 17th and departed on the 18th. Accompanying the Howie party was Dick Frank, son of Naturalist Frank of Mesa Verde. Dr. James F. Zimmerman, president of the University of New Mexico, and daughter, were here also.

Personnel

Mr. John Roden was hired as guide and general helper from July 2 to 12. Temporary Ranger Lewis T. McKinney entered on duty July 14. Ranger McKinney, being an oldtimer in the Service, got right in line guiding visitors, giving information about the ruins, and, best of all, he learned right away that we have the finest masonry found anywhere. We are able to give our visitors more time, show them more, and render much better service than we did last season, due to the increase in personnel.

Inter-Monument Transfer

The 3/4-ton Dodge Truck No. 8117, N.P.S., was transferred from this Monument to Aztec Ruins National Monument on the 17th. The Dodge was driven to Aztec by Ranger McKinney---I drove the V-8 pickup over so I could bring McKinney back. The new V-8 pickup was received in Gallup on the evening of the 6th. I like the pickup very well, and have installed a 30-gallon tank in addition to the equipment tank. It is a good looking job, and I find it very serviceable. I can make the round trip to Gallup or Yucca House and Hovenweep National Monuments and return to Chaco without adding more gasoline.

Since the June Report I have been wondering if I had overlooked something at Aztec Ruins; this time I did look it over from stem to stern. I was awe-stricken and speechless when I found that polished stone in the northwest corner of the Ruins. Boss, I have been wondering if John will did rebuild those Ruins a few years ago and borrowed that beautiful stone from Chaco. We fully intend to hold him accountable for the word D*U-M-P he used in the June Report, but after the good western hospitality shown by Mrs. Faris, we overlooked that remark. We will have to admit that Aztec and Mesa Verde are the nest best ruins in the Southwest.

Boundary Survey

Engineers under Associate Engineer Diehl completed their work here

CHACO CANYON (CONT.)

on the 16th and departed on the 17th. Engineer Clark, Rodman Pinkley and Schmidt completed a good job before leaving the Monument. We have enjoyed having them with us the past seven weeks and we hope you will send that same crew back, Mr. Diehl, when we have another job at the Chaco.

Improvements

New garbage pits have been made for the public campground. Toilets have received a new coat of paint (color, reindeer brown). Windows in the Custodian's Residence have been re-puttied; doors and window facings have been painted. In general, the quarters have a better appearance when you drive up to the Monument Headquarters. During the month of August the roof and other things around the Monument will be overhauled.

Excavations

The University of New Mexico has been running two crews: one crew is excavating a large Kiva at the ruins of Una Vida; the other is working on Talus House No. 1, Chetro Kettl. Very little has been found in the way of artifacts to date. A complete report of their activities will be mailed to you in the August report.

THREATENING ROCK

By Dorothy and John Keur

Here we are again at Chaco for our annual visit, enjoying our stay as much as ever. Last year we were here at approximately the same time and made measurements between the various hubs which had been established in 1933 on the Mesa and Threatening Rock. Perhaps Mr. Patterson wrote you that we found all our measurements to be about one inch less than those of the year before. So Pat asked, "Did the Rock shrink during the year?"

That certainly looked suspicious until we discovered that the year before we had read distances from the inside of the tape loop instead of from the end. Therefore all figures given in my original report on Threatening Rock had to be revised and one inch subtracted from each measurement. One inch more or less certainly would make a difference in the position of the gravity-center of the rock.

So yesterday we went out again with Carol Miller to measure between the stations. This time no such evidence of shrinkage was found. On the contrary, most measurements showed increases ranging from 1/8 to one inch. These variations, however, are not sufficient evidence to assume that the rock is leaning forward more now than last year. A variation of 1/8 inch in a 68-foot distance between two stations may very well be attributed to a difference in individual pull on the end of a chain, or to "side-blow" by wind, etc.

I think that we cannot evaluate this year's figures correctly until next year and years after to see if supposed forward settling of the rock shows a continued or substantiated increase in measurements. We carefully

THREATENING ROCK AT CHACO (CONT.)

inspected the base of the rock to see if any new cracks or splits had appeared since last year. In 1933 and 1934 all cracks at the base were carefully plotted. No new cracks have appeared since, which is another evidence to my mind that the rock did not settle much.

Mr. Miller has been most helpful to us and has made our stay here ever so much more pleasant.

MONTEZUMA CASTLE

By Martin L. Jackson, Custodian

Visitors for the month, 1,847, which is 49 less than last July. While we have more names on our register book than for the same period last year, we probably have not had as many visitors.

We counted the number of visitors for a period of 18 months, then checked them against the number of names appearing on the register book and learned that only 33% climbed the ladders, so have been multiplying the number of names on the book by three for the total number of visitors.

It has occurred to both Ranger Fish and myself that more than one third of the visitors have been climbing the ladders of late. On checking against the book for three days during the month, the suspicion is borne out. We find that instead of one out of three going up and into the Castle, that on an average one out of every $2\frac{1}{2}$ makes the climb, and the number for this month is based on the $2\frac{1}{2}$ figure instead of one out of three as has been used heretofore.

Weather has been about normal for July. If any difference, a bit cooler than usual.

Roads leading into the Monument are still being worked and there is quite a lot of complaint from visitors about detours.

In my opinion, it is easy enough to account for more visitors climbing the ladders than did a few years back because at that time we had more crowds on Sundays and holidays. At that time visitors could drive down to the shade for their picnic parties, and we had several cars on the grounds almost every night during the summer months. A good percentage of these picnic parties and campers had been in before so did not care to climb the ladders again.

Since the new parking area has been built, we do not have as many picnic parties, and no campers to speak of. The reason being that picnic parties can find other places along the different streams where they can drive up to the shade and not have to carry their lunches, water, ice cream freezer, and in some cases a case of beer for twelve or fifteen hundred feet. We have no decent place for campers, so do not get them.

MONTEZUMA CASTLE (CONT.)

While I agree that I did a lot of complaining about the grounds being shut off to picnic parties and campers, I am not so sure now but it was a good idea as far as the picnics are concerned, for whoever is on the grounds, it takes more or less of one's time and attention, so it follows that if they are not here, it leaves more time for the visitor who has not been here before. I still think we should have a decent camp ground for visitors who want to stop overnight. Suppose we will get one in time.

Have had a number of prominent people this month, among them Dr. Thomas C. Poulter, second in command of the Byrd Antarctic Expedition. Mrs. Poulter accompanied the Doctor. Also Dr. Charles F. Hottes, Department of Botany, University of Illinois; Dr. Harold A. Bulger, Washington University, St. Louis; Dr. Frances M. Smith, Metabolic Clinic, La Jolla, California; Dr. H.C. Graham, University of New Mexico, with his annual trip for geology students.

Want to thank you fellows in the office for not getting back at me last month when I left such a wonderful opportunity in telling about Ranger Fish thinking that La. was the abbreviation for Louisiana instead of Los Angeles. I misspelled Louisiana---left out the second "i". That being the only mistake I have made, am sure you overlooked it.

EL MORRO

By E. Z. Vogt, Jr., Acting Custodian

I am very proud to sit beside and admire our brand new filing cabinet in the Custodian's Office while I scribble my July Monthly Report.

Weather and Roads

This region is having more unusual weather. Judging from the recent reports of western New Mexico's weather, one would think that our weather man should join a circus sideshow as a peculiar freak. But what do you think of this? No rain until the 18th of the month. Then it rained almost steadily for three days, and now the days are clear, dry, and terrifically hot. Has been this way since the 21st. The peculiarity is fast becoming a calamity, for crops and grass which were given a new start by the rain are soon going to burn up.

Huge prop trucks traversed our approach roads in the wake of the rain and left them in a hellish chaos. A life-saver was the Indian Service grader which smoothed up the Gallup road yesterday. However, the Grants-El Morro highway is still a spring-breaking, back-wrenching approach to the Monument.

Flora and Fauna

A deer was sighted passing along the Monument fence about two weeks ago. It was travelling north toward the Zuni Mountains and probably came from the wooded volcanic country south of El Morro, where the water supply

EL MORRO (CONT.)

doubtless gave out. We considered the possibility of hanging a feed bag of oats on the Monument gate, or strewing alfalfa about the entrance with the purpose of enticing the next passing deer into the Monument. A few head of deer would be quite an attraction for El Morro and would thrive in the little blind canyon on the west side of the Monument.

Last Monday I had a most enjoyable jaunt into this blind canyon. It was, I believe, the first time this summer that any human being had invaded its primitive remoteness, poked around in its beautiful little rincons, marvelled at its 150-foot rock spire, and explored a few of its inaccessible crevices. Purpose of the jaunt was to find out just how wild and lovely the canyon is becoming.

I entered the canyon by way of the prehistoric hand and foot trail that leads from the southbruin to the canyon floor which is covered with knee-high luxuriant grass, wild geraniums, scarlet bugler, horse mint, and rose mallow. At the foot of the ancient trail stands a dead but gigantic old pine whose top towers above El Morro's summit. This old tree was probably there when the more recent Spanish Conquistadores passed, and may have seen Onate clanking over the rock in his tin suit. Pete and I have been thinking about boring out a specimen of the tree and having it dated.

Surprising to me is the fact that the new wall around the old Indian well has caved in, making the well appear to be dry. By throwing out a few of the smaller rocks, I was able to find plenty of water beneath all the debris. Cause of the cave-in was evidently disintegration of the foundation rocks. By use of a little cement and carefully selected rocks the wall can be substantially rebuilt. We have found that the yellow and white rocks will disintegrate in a few months, but that the red and other dark-colored rocks will withstand the weather.

From the Indian well my jaunt took me down the north side of the canyon where the red-shafted flickers slowly wing their way between the stately alligator junipers, some of which are four or five feet in diameter. The Rocky Mountain Nuthatches pecked their way around the trunks and branches of pines as if they were following the red stripe on a barber pole, and the cliff swallows darted about the rock spire and north cliff. A pair of Arizona Hepatic Tanagers were seen for the first time on the Monument. The brick red male and dull yellow female were quietly chirping in a western yellow pine.

I continued along the cliff following the one-time CWA trail and road which is now overgrown with grass and weeds, is used only by rabbits for a route from the well to old Rafael's fine corn field. I passed a pack rat's nest and found a chewed yucca seed pod,---a little farther the indigestible remains of a rabbit that an owl had coughed up after eating the more delicious parts. Perhaps seven or eight hundred years ago on a similar July day a prehistoric Puebloño had wandered down along

EL MORRO (CONT.)

this same cliff, had seen the same sights and the same varieties of birds and trees.

As I climbed out of the canyon to the north ruin, my ponderings were suddenly interrupted by a TWA plane which dipped low over El Morro. I waved and the plane continued its westward journey.

Side-interest Stuff

Three of our local Navajos returned last week from a horseback trip to the Mescalero Apache Reservation, where they spent the 4th. Mescalero is close to 300 miles from here as a crow flies, and the Navajos (ex-chief Pitagai, Richard Pino, and Dick Pino Begay) made the trip down and back in two weeks.

Jim Haverkamp, old-timer from Bluewater, visited the Rock three weeks ago and gave is some new ideas concerning old Spanish trails in the lava bed. Mr. Haverkamp is a surveyor, prosepctor, and practical archeologist, has been all over the lava bed and claims that it is full of Spanish trails but that the netrances are hidden, that is, the trails were not constructed at the edge of the lava. You must walk over rough lava for three or four hundred yards before you can find the beginning of the trail. He thinks that they were built by Zunis who were taken as slaves by the Conquistadores. The trails are built like flagstone walks and in places dips and canyons were filled in to make going easier for Spanish horses. For what the trails were used for he doesn't know, Possibly to search for gold.

Otis and Herbert McDaniels, starvation killers and now widely hunted for the shooting of the Colorado sheroff, spent many of their boyhood years in Ramah. I used to go to school with them. Ramah people think they will eventually head this way and probably hide out in the lava bed not 20 miles from El Morro.

Few spots in New Mexico are as inaccessible as this lava bed, where they could hold out for months and shoot the authorities from ambush as they entered the lava. Everyone feels rather shaky about their coming and all agree on one thing---that they can have anything they want, a horse, car, or grub. Being as desperate as they are, they wouldn't hesitate an instant to shoot anybody who refused to up his horse or car.

General

Although the three-day rain did not damage the stone stairways, it did damage the switchback trail more than any previous rainstorm. The drainage ditches are apparently too small to carry the amount of water off the Rock in a hard rain, for the water washed an arroyo right down the middle of the trail. Many of the rock dips did not hold the water at all.

To keep persistent visitors off seeded ground and the nice sod on the upper side of the road, a line of posts were set along each side of

EL MORRO (CONT.)

the road leading up to the ranger's cabin. They seem to serve their purpose very well.

The Custodian is expected back in about a week for a stay of a month or so.

EL MORRO RANGER REPORT

By Alfred Peterson, Temporary Ranger

Visitors

Visitors for the month number about 381, representing 20 states. In addition to these, there were between 60 and 70 people came in to haul water for home and stock use.

On June 26 we had visitors by airplane---Major Robert D. Knapp and son from Kelly Field, San Antonio, Texas. They landed at the El Morro emergency landing field about three miles from our entrance, and one of the radio operators, Mr. Campbell, brought them over in his car. Major Knapp said he was stopping to see the most interesting points along the way and expressed himself as well repaid for his rather brief visit. The boys at the landing field said they like to have such people stop there, but it means reams of reports in the form of extra work for the,.

A very charming visitor on July 4, the first one for the day, was Miss Frances Gilmor, author and member of the faculty of the University of Arizona. She was accompanied by Dr. Mary A. Hill, head of the English Department of the Arizona State Teachers College at Flagstaff.

Two parties of police officers came through and stopped briefly in their search for the four lost tourists from Illinois. One officer even prodded into the roily water of the cove with a pole to test its depth.

The first Courier Car came on July 4, bringing a party who had come by the same means about a year ago.

On July 14 there were 75 visitors, and I was certainly glad Vogtie was here to demonstrate his fine ranger abilities.

Members of the Southwestern Monument "family" who were here during the month were Bob Rose, Naturalist, and Engineer Jack Diehl on the 13th, and on the 16th Mrs. Chuck Richey was in with two school chums.

Campers

Our small but very inviting campground is frequently occupied by overnight visitors. The beauty of Nine Pine Cove, along with its restful atmosphere, is frequently complimented. That will probably be spoiled when good roads bring many unappreciative visitors. These campers are practically always good visitors---intelligent and interested---frequently teachers and their families. One couple from California who stopped there

EL MORRO TANGER REPORT (CONT.)

had a monkey, and the little primate from South America, after a sample of a June bug as a gastronomic delicacy, demonstrated great ability in catching them on the fly with only the light of a camp fire to alleviate the darkness.

Fauna and Flora

The Evening Primroses and the Spider Worts have decreased greatly in number, but the Rocky Mountain Bee Plants are very attractive, especially to myriads of Humming Bird Moths. From dawn to dusk these bird-like insects are busy gathering nectar. As for the Humming Birds, contrary to usual conditions at this season of the year, they are very scarce. I have seen one Black Throated Humming Bird, one female of the Rufous, and one not identified.

One day a commotion in the air attracted my attention to a flock of seven Golden Eagles flying about and apparently quarreling. They flew off toward the mesa to the east.

Many of the "water dogs" in the Cove have recently gone through the metamorphosis that changes them from a gilled, flat-tailed animal into a lunged, round-tailed salamander, and many of these have been seen coming out of the water. I put one of these in a box with a baby rattlesnake I'd picked up on July 4 with the idea he might be food for the snake, but they seemed to have too much in common. I've tried frogs the same way, but the rattlers do not seem to relish amphibians.

Incidentally, someone disturbed the screen over the snake cage and left it raised a little at one corner, and baby rattler wriggled away. At any rate he has not been seen for three days.

General

So much rain fell the afternoon of the 18th that water level in the Cove was raised over three feet, which left it 2'10" from the top of the spillway. Another such rain and we would have water running through the seeded area of the old arroyo. In haste I opened the irrigation valve of the 1" pipe and let it run for about 60 hours. This stream, puny compared to the flow into the Cove during rain, slowly lowered the level to a point where I feel safe until another heavy rain. And I have learned that this pipe siphons the water at the rate of about 200 gallons an hour.

During and after heavy rains I have heard and seen pieces of rock fall off the cliff. Last year a small one, weighing a few ounces, fell about 15 feet from me. The other day a stone weighing about eight or ten pounds nearly buried itself in the soft dirt of the trail at the base of the cliff near the Cove. I have come to the conclusion that it is not wise to show visitors around at such times; at least it is not wise to approach near the cliff.

Late in June, from a missionary who has been among the Zunis for years,

EL MORRO RANGER REPORT (CONT.)

I learned something of the attitude of the Zunis toward the incident related in the Lujan inscription which tells about the expedition to punish the Zunis for having killed the priest Letrado in 1632. Zuni Indians swear they did not kill the priest, but that Apaches did it. According to the Zunis, the Apaches harassed them so much that they occasionally abandoned a village to escape them, and that during one of their raids they caught a priest in front of the church and scalped him.

On July 4 I had an interesting family here by the name of Garduño (that's the way it looks on the register). The man looked Irish and was half Spanish and half Irish. His wife was half Spanish and half Navajo, and her father and grandfather had been Navajo war chiefs.

The lady reminded me that Bandelier in his Delight Makers lets out the information that Navajo Indians did not scalp, but simply took a lock of hair. She said, "Don't you ever believe it; the Navajos took scalps just like other Indians, and I know."

These people were just cram full of historical information---and other---and were so well read they took exception to Dr. Lansing B. Bloom's latest New Mexico history in some respects. Sr. Garduño told the story of how the Mexican settlement of Tenaja was named. It seems that the early Mexican squatters at that site were digging to improve the water supply, or some such reason, and they unearthed a large tenaja (water jar) which was full of papers, presumably documents or records placed in the jar and buried for safe keeping. The papers were in poor condition and were scattered and lost or destroyed by the wind. That, according to the prevailing story, is the reason for so naming the town of Tenaja, but don't you wonder ~~what~~ interesting and valuable records were in the jar?

Also, this gentleman, for the benefit of a lady from Mexico who knew no English, would, instead of struggling through reading the old Spanish, step up to the English translations and make them sound as if he were reading directly from the inscriptions.

AZTEC RUINS

By E. W. Lewis, Temporary Ranger

Were I but a baby taking his first misguided steps, I would not be more in doubt than I am in trying to write this report. I hope those who read it will be mighty patient with the contents and please do not romp on it with critical, eagle-like eye.

We are very glad to report a decided increase over last month in the number of visitors. We hope that next month will show a similar increase. The number of visitors total 1,675, which compares very favorably with July of last year.

With the exception of last week, we have had very decent tourist

AZTEC RUINS (CONT.)

weather. Last week, however, we had several stormy days, and a little rain, too. We had total precipitation of .43 inches. At least the cloudy weather seemed to cool the atmosphere and for several days the thermometer hovered around 80 degrees. We are very thankful for the cool weather, too, because it seemed to pep us up a bit, and the visitors appreciated the nice cool place we have here.

Speaking of increased energetic feeling, Custodian Faris worked out a nice little schedule of daily work for us to do, such as going over museum trails for gum wrappers, etc., watering the trees in the parking island, and even to a certain time for shingag our boots. I think it all works out very nicely, because then we are sure of nothing being neglected that should be done daily to make this a better Monument. As an example: Tuesdays, Thursdays, and Saturdays we do certain things, such as giving the office rooms a good sweeping and cleaning.

After the first little shower of last week, Custodian Faris took the grader and dragged the road from the main road to the Ruins. This road is one of our little sore spots, and we hope to have something done about it in the near future.

Along about 4:30 p.m. Custodian Miller and Ranger McKinney paid us a visit. It is very likely that the main purpose of their visit was to present us with the Dodge truck. Indeed we were very glad to get it, because when we do need some conveyance of the kind, we need it badly. We don't like to say this, but somehow or other we feel like Cal was glad to pass it on to us, especially since he has that new Ford.

On the morning of July 20, Roving Ranger Reid appeared, and he remained here until the morning of the 23rd, awaiting instructions as to his future duties.

Late in the afternoon of July 18 Engineer Hamilton, Mrs. Hamilton, Mr. Walt, and Mr. Richey paid us a visit. The main purpose was to come to some agreement on the proposed parking area, cattle guards, and trails leading through the Ruins. We hope to see men working on this job soon. Tourists are not very well pleased with the loose gravel we now have.

Generally speaking, however, all tourists have been well pleased with this Monument, and many have been heard to remark that they would certainly send their friends here first, all of which we are very proud.

July 21, we had as visitors several people from Mesa Verde. Among them were Mr. and Mrs. Saunders, also Mr. Saunder's mother.

Since we try to treat all our visitors as special visitors, we can't particularly point out any as special, but we have had some from far away places. One came from London, and one from Sydney, Australia.

Mr. and Mrs. Charles R. Brill of the Accounting Division at Washington

AZTEC RUINS (CONT.)

paid us a visit on July 13. We aprticularly appreciate Supt. Pinkley suggesting to them that they should stop by and pay us a visit.

Deric Nusbaum and two friends were in for a short while the 7th of July. Mr. Faris, superintendent of the new Navajo Central Agency, spent a brief time with us July 17.

We are happy to report that a friend of the Service has offered to print us some of those charts of Prehistoric Peoples of the Southwest. At various times, if we had them available, we would be able to supply people who are very interested in the data they give. A great many teachers have asked us if they might be obtained. We have also had another gratis offer by an interested party to have 1,000 copies mimeographed for us.

So, there must be a closing, and I might add that as a sort of summary that the weeds are still growing, and that we are endeavoring to combat them with muscæ and brawn when we are not showing visitors through the Ruins.

Boss, if this report lacks all the necessary things you think it should have, blame Custodian Faris for his inability to judge my writing qualities, and for goodness sakes don't believe it's on a par with my ranger ability.

NOTE

By Johnwill Faris, Custodian

Dear Boss:

Above you will find our July report, not prepared by myself, but by Ranger E.W. Lewis, even to the typing. With all the discussion regarding monthly reports I thought it would be only fitting to round off my Ranger's experience by allowing him to write one of the reports. This is really a Lewis product, and is indicative of the splendid manner in which Mr. Lewis does all his work, and I take great pleasure in presenting it to your office without change.

Feeling that I must have my little say, July has been a very normal month in most respects. I feel that our brand of service is on par if not superior to usual. Every attempt is being made here to improve the service, and hardly a week goes by that Lewis does not accompany me or I him---the sole purpose is to pick out little defects and note the comfort of our visitors. To mention one, minor yet of great importance to our visitors: in the handling of our hand lights, we often become so enthusiastic with our story that we lose sight of the fact that the light might flash across a visitor's eyes. We are making a point to guard against this, and although we have never had a complaint of that nature, we both realize it might have occurred many times. We try to bear in mind that the more attention we pay to the little things, the less likely we are to have any cause for complaint at all.

AZTEC (CONT.)

It was my pleasure on several occasions this month to hear our past and present Directors spoken of with the highest esteem. Two persons in particular spoke of their appreciation and regard for the work of Horace M. Albright, to which of course, we added our hearty Amen.

Call it Providence or what you may, it seems that just about the time that we are feeling especially low and blue, a visitor will come in all inspired with the work of the Service, and we feel somewhat ashamed that an outsider can receive such inspiration when we in the Service might be low.

TONTO

By Charlie R. Steen, Acting Custodian

A rather dull month has just passed. Only 324 people visited this Monument during July; of these 220 walked to the Lower Ruin, but no one went to the Upper Ruin. Summer traffic on the Apache Trail is the heaviest since the road was built, but the cars just aren't stopping.

The weather factor seems to be the principle deterrent to Monument traffic. July days have been either quite hot or high winds with heavy clouds have threatened rain. I have also heard reports that some filling station and cottage camp proprietors are telling their customers that since the ruins are visible from the highway, there is no need to turn off.

The summer rains, in spite of great banks of clouds which have been blowing along the mountain ranges for three weeks, have failed to materialize. There is no summer grass, but the cattle on this ranger are still very fat and sleek as large amounts of filaree still lie on the ground and the browse shrubs are ready. The spring has a greatly decreased flow from that of a month ago. There seems to be less water than during last summer. In order not to tax the spring, I have quit watering the grass around the parking area and back of the house.

There has been a regular parade of brass hats here during July. On the fifth, Hugh and Christine Miller brought Mr. and Mrs. Charlie Brill of the Washington Office for what I thought was a friendly visit, but which turned out to be a towel inspection. Bob Rose and Jack Diehl spent an hour with me on the 18th. On the same evening Albert Munsch of St. Louis University and A.D. Spearman of Loyola of Los Angeles walked to the lower dwelling. I am sure that Dr. Munsch will remember his visit as he was stung on the neck by a bee.

It is evidently considerably cooler here than at Casa Grande for next day Bob Rose came back. This time the Boss, Dr. Bryant, and Dale King were along. Nancy Pinkley just saved herself from being disinherited by me by tagging along with the rest. She showed the poor taste of failing to stop at Tonto on her recent trip through the Southwest.

TONTO (CONT.)

Dr. Emil Haury of the Gila Pueblo ended the month's list of notables on the 23rd; in his party were Dr. Paul Martin of the Field Museum, Chicago, Dr. Martin's brother, and three students.

Early in the morning of July 14th an old rattletrap of a Ford pulled up the entrance road and two prospectors got out. They asked permission to prospect on the Monument, and on being told that would be impossible, said they would take a look anyway. I thought that meant they intended to dig around, and started to explain what I meant when I had said "no prospecting" until one pulled a forked stick from the tonneau of the car. From his pocket he took a small tin box which contained a 100-gr. capsule filled with a silver colored powder. He fastened the capsule to the forked end of the stick, grasped an arm with each hand and held it upright, just above ~~the~~ and in front of his head. Sure enough, the attraction of the gold below the lower ruin pulled the forked stick down until it pointed in that direction. He disappointed me by saying that there isn't very much metal ther. (I don't have much faith in doodle bugs anyway.)

As I write this, which is probably my last report from Tonto, I realize that history is about to repeat itself. Another invasion of the Lower Gila from the upper reaches of the Salt River is about to take place. These mountain people are supposed to be pretty virile and dominating in character, but perhaps the strain has been weakened during the last few hundred years, for this is one invader who doesn't intend to build any four story mud towers in the middle of the desert.

WUPATKI

By James Brewer, Acting Custodian

Travel

129 visitors registered at Wupatki Pueblo, and the unattended book at Citadel records 203. Duplications, 64. Total travel for July, 268. July, 1934, only produced 90 visitors.

There have been two overnight camping parties, and three picnic parties. Earliest arrival, 8:30 a.m.; latest, 8 p.m.

Weather

Cooler and generally cloudy. High temperature, 103 (13th); low, 52 (5th). Precipitation, 1.45 inches. A cloudburst on the 17th provided 1.33 inches of rainfall within 45 minutes.

Newsworthy Visitors

Mrs. Mabel Cook Cole, Dr. Fay Cooper Cole, with Dr. Colton and Miss Bartlett came on the 12th. Dr. Cole is Professor of Anthropology at the University of Chicago.

Also on the 12th came Mr. and Mrs. Philip Johnston of Los Angeles. Mr. Johnston's father founded the mission at Tolchaco, about 15 miles

WUPATKI (CONT.)

above us on the Little Colorado, in 1899. The mission has been abandoned for approximately 15 years, but will be remembered as the place at which F.D. Mitchell compiled his Dineh Bizad. Mr. Johnston told us of their trek up the river from Tuba City and that in building the mission they used ---interesting to note---beams from an old saloon of the lumber town, Winona. He also described the Mormon wagon trains travelling the road along the Little Colorado which was then the link between the Mormon settlements in the upper valley and Salt Lake City. On a drive across the river from Wupatki he pointed out remnants of the old road---now used occasionally by Navajo wagons.

At Citadel Julián Hayden and bride are registered.

On the 17th Bob Rose and Jack Diehl delivered a nice Pueblo III automobile to Wupatki and took the Basket Maker down into the Hohokam. The jumbo sandals on the PIII job have proven to be just the thing in our cinders.

Roads

1.33 inches of rainfall in 45 minutes washed parts of the road below Doney Mountain into Deadman's Wash. We pitched in and patched it up in short order with Sallie driving the scraper and Clyde and I on the business end of a shovel. The road is not in good shape, but the rain has packed the cinder-dunes and crossing them is less difficult.

The trails are badly washed out where they cross hillsides. It's darn hard to direct the drainage of so much water coming at one time.

Preservative

(see April report, 1935. p. 175). The plastered area on the east wall of Room 41 shows no change after the rain. The firepits have not withstood so well---probably the damaging effect of standing water.

Education

As mentioned in the June report, we are experimenting with charts and diagrams to help visitors toward a better knowledge of Wupatki. Included in our program is the use of small signs designating archeological features and different ~~stages~~ ^{of} restoration. The sign contemplated is similar to that used in national parks, etc.

Before permanently installing the charts and signs we are studying "visitor absorption" of the field lecture by having guests who are not hurried answer a typewritten questionnaire. In this manner it is expected we will learn how much more, if any, a visitor profits by the charts and signs, after they have been installed. Since the 23rd, five people (two parties) have filled out the questionnaire with apparent enthusiasm. The procedure has been the usual trail trip, followed by an explanation of the purpose of the questionnaire. If the visitor is interested---everyone

WUPATKI (CONT.)

so far has been---we give them a copy with blank spaces to be filled out. All visitors who have filled out the form were interested enough to ask about their "scores" and welcomed a discussion on the points in which they were in error.

We expect there will be those who will not want to fill out the questionnaire. But we also expect that those who do will help us formulate a program, through trial and error, that will present Wupatki in an understandable way.

At a less-traveled Monument like Wupatki where more time can be given each visitor, where a visitor has driven 15 miles solely to see Wupatki, and where a majority of visitors come directly into our "home" we attain a more personal contact; I think we are in a favorable position to analyze visitor reaction.

Entah Eclipse

Clyde Peshlakai has told me the following: (Because Clyde doesn't speak much English and I less Navajo there may be some errors in this account).

"I go to Squaw Dance Dinnebito; stay up all night, no sleep at all. Dance all night, couldn't stop-it. Early morning go to Bridge (Cameron); everybody lotsa eat; kill-it little lamb, steer, and mutton; everybody brings. I buy velvet and stick and bean candy (probably jelly beans). Same night dance all night, couldn't stop-it. Early morning go to 'nother place Dinnebito; ride lotsa mile. Night-time start-it dance again an' a moon gets sick (the recent eclipse). 'At's no good, he stop-it dance. Dinneh Tso he walk aroun', tell everybody no eat-it, no smoke, no drink-it, no sleep, moon's dead. 'Bout two o'clock moon get well; start-it again dance. Early morning he say 'Moon too bad fellers, spoil-it dance.' I go home to Sallie's half-mother." (????) (his wife, Sarah, has become Sallie.)

Etc.

On Saturday, July 20, the Museum of Northern Arizona moved its field expedition from Bonita Park to a site a couple of miles below Grand Falls on the little Colorado River. Unless this latter site proves unexpectedly nonproductive, the expedition will not work at Wupatki this summer. It now appears that we will continue for awhile to grope in the dark concerning our reservoir--gaming area--problematical structure.

I was glad to see---and get---evidence of the cooperation and encouragement men-in-the-field are obtaining from the Educational Department, as evidenced by Dale King's report concerning the activities of the Berkeley division.

SUNSET CRATER

By James Brewer, In Charge

Since installing a registration box earlier this year, we have obtained visitor counts which show that travel interest is certainly not lacking at this Monument. During July, 909 visitors registered here.

All of which brings out the fact that an unusually large number of people are visiting a Southwest Monument at which there is no guide and protection service, very little provision for non-guided education, and at which the only Park Service development is the placing of a register.

Perhaps the most immediate need is for signs which would enable the unattended visitor to add much to his enjoyment of the Monument. If possible, we would like to have the Berkeley Office make up the usual nature trail signs pointing out the less obvious, but very interesting fumeroles, squeeze-ups, etc. The only provision for such explanation at present is the glass-enclosed case containing copies of Museum of Northern Arizona notes concerning Sunset Crater and vicinity, and a sign pointing to the ice caves.

The entrance road at present is in chuck-hole condition, in spite of which cars were overflowing the improvised parking area when we picked up the travel sheets this morning.

A visitor at Wupatki, who had just come from Sunset Crater, told me of an unusual party at that Monument: the members were taking ice from the ice cave and freezing ice cream for their picnic lunch dessert!

QUESTIONNAIRE

Following are some of the questions on the questionnaire mentioned by James Brewer in the Wupatki report:

1. Have you ever studied archaeology?
2. Have you visited other archeological Monuments or Parks?
3. To what cultural stage (Pueblo I, II, etc.) does each belong?
4. When was Wupatki Pueblo inhabited?
5. Why was it abandoned?
6. What was the major difference in physical type between Basket Maker and Pueblo people?
7. What plants were cultivated at Wupatki?
8. What is a "kiva"?
9. Is the kiva at Wupatki rectangular or circular?
10. How do the houses of Pueblo II and Pueblo III differ?
11. To what cultural stage does Wupatki belong?
12. What does the name "Wupatki" mean?
13. Is it your impression that Wupatkians were: (yes or no) industrious?
_____ raiders? _____ religious? _____ abnormally tall or short _____ resourceful?
_____ nomadic? _____ organized to cooperate in work, religion, etc.? _____.

BANDELIER

By Earl Jackson, Custodian

Visitors

Visitors numbered 2,092, arriving in 540 cars. Of the 48 states, only six were missing---Nevada, Utah, Oregon, Idaho, Maine, and Mississippi. One car was from Hawaii. This is the widest travel representation we ever had. England, Hawaii, Ontario, British Columbia, Jamaica, Czechoslovakia, and Scotland provided registrants. In fact, three parties came from England.

The six highest states by travel were: New Mexico, 970; Texas, 314; Oklahoma, 150; California, 87; Illinois, 78; Kansas, 70. Our travel figure compares with 1,723 visitors for July, 1934, showing an increase of 349.

It is noticeable that Texas and Oklahoma, especially the former, are sending a much higher number of people in proportion than at any other time this summer. Part of the "Solid South" forms a "Solid Procession" down the road toward Santa Fe and points west.

The largest visitor group this month was a party of 20 girls from the Cimarroncita School.

Weather and Roads

Precipitation for the month was all of .81 of an inch. Are we proud of it? 'Twas better than nothing. We are thinking of having one of those Rain Dances to see if we cannot propitiate Awanyu, Bringer of Rain. Cloudy weather is still the vogue here, but brings only a promise of rain.

Water in El Rito de los Frijoles is quite low. If a thirsty cow were to find her way into the canyon and take a drink, the stream would stop running.

Roads are quite dusty, and rough in spots. Tesuque and Pojoaque Washes received the run-off from a cloudburst in the Sangre de Christo Mountains, and were almost impassable for a day and a half. Otherwise, travel has not been interfered with.

Special Visitors

June 27---A group of 10 students of the recently found Eidolon School in Santa Fe were in. This school teaches art, sculpture, metal work, and dancing.

July 5---Major and Mrs. James Sawders spent half a busy picture-taking day with us. Major Sawder is an internationally known lecturer on subjects pertaining to Spanish American life.

July 6---19 Iowa school teachers, members of a travel club, visited Frijoles Canyon.

July 9---Chuck Richey was in on inspection on a three day stay.

BANDELIER (CONT.)

July 10---Bob Rose and Jack Diehl came in for two days.

July 13---Principal and Mrs. J.B. Vernon of the Santa Fe Indian School were very interested visitors.

July 17---A Mrs. Martin, director of the Cimarroncita Girls' Camp brought 18 girls for an afternoon in the ruins, and they spent a night on the campground.

July 18---Mrs. J.F. Zimmerman, wife of the president of New Mexico University, paid a return visit with friends.

July 19---Mr. W.H. Wirt appeared for a two and one half day inspection.

July 25---Chuck Richey is in for his second inspection this month.

Forest Fires

Lightning has been very slight this summer, and so the region has been very fortunate in its fire problems. Only fire reported in Bandelier National Monument turned out to be a controlled campfire of cow punchers passing through. Forestry men are as happy as we are over the fire situation,---their fire guards suffer from innocuous desuetude. (????)

Nature Notes

The Eastern Tent Caterpillar has at last broken out again. The first generation, raised early this summer, did slight damage. The second generation, now becoming ravenous, shows considerable signs of spreading. Jim Fulton, the Forestry Foreman, has a bug crew hard at work on these pests with our new Hardie Sprayer, using a lead arsenate and blood albumen mixture with water. Unfortunately, the long leaf cottonwoods are so tall their tops must go untreated.

The Abert squirrels are becoming so tame they will hardly move out of the road to let a car pass. I have seen a number of them cavorting gaily through the new campground recently, and they are the subject of much interested comment.

A particularly vigorous colony of Ant Lions (Doodle Bugs) has founded its capitol just off the ruins trail under a projecting ledge near the Snake Kiva. The funnel shaped houses of these savage looking creatures are of considerable interest to visitors, especially after the mutilated carcasses of the lions' victims are seen in process of rejection from the doodle bug houses. The ant lion, when he wishes to throw away the body of an ant or other insect, simply gets his head under it, flexes his neck and jerks his head, and sends the heavy load far outside his hole.

General

The visit of Bob Rose was much enjoyed. He gave a great number of

BANDELIER (CONT.)

intelligent pointers on our educational problems here, and also straightened out several questions in regard to the geology of the rhyolite tuff.

Jerome W. Hendron, of Albuquerque, began duty as summer Ranger here on July 19. Jerry comes here with an M.A. in Archeology from the University of New Mexico, and is thoroughly acquainted with the archeology of the Rio Grande Valley, hence is quite valuable here. Also, he is not afraid of work, which is one prime recommendation for anyone in the Park Service. There would be no place for a lounge-lizard here.

Lieutenant and Mrs. J.F. Kuehnert, U.S.N.R., arrived at Bandelier on July 8. Lieut. Kuehnert is succeeding Lieut. E.F. David in command of Camp Bandelier. He comes to us with a good fund of experience in handling men, gained partly from his years in the Navy.

More campground comment. Campers are not populating our grounds overnight as well as they should normally be expected to. While it is not our purpose to induce people to come out here just to use the campground, it seems odd that with so many visitors coming one of the finest campgrounds in the state can receive so little overnight use.

Everybody is in a hurry. In my experience I have never seen so many hurried tourists, even with fast traveling summer crowds. One feels sorry for these folks. It is impossible to see the United States in a week.

BANDELIER E.C.W. REPORT

By H.B. Chase, Project Superintendent

Construction of the Headquarters comfort station has been completed to ceiling height this date. Rough electrical and plumbing work will be started the 29th with efforts to complete this building ready for use by Sept. 1.

The wall project along the south side of the utility area is completed together with walls of the warehouses and gasoline station buildings to the same elevation.

Approximately 50% of the excavation necessary in the utility yard has been moved and placed, this project being carried simultaneously with the wall building for fill material to the proper area elevation.

All footing walls together with 25% of the building walls of the warehouse are now in place; fill within the warehouse footing walls has been made. A small amount of footing wall for the garage building has been completed this month.

Spraying of trees along the Frijoles on the canyon floor has been carried on at intervals when evidence of tent caterpillars has shown up. This work being carried on under the direction of Forestry Foreman _____

BANDELIER E.C.W. (CONT.)

Fulton with the new spraying equipment received at this camp.

A large crew has worked this month in the rock quarry quarrying and shaping rock material for the different building projects and the stone guard rail.

A total of 396 lineal feet of stone guard rail with an additional 78 lineal feet of footing is now in place and completed along the entrance road leading into the canyon.

The campground fireplace project was started this past month within the new campground area; firebrick linings have been constructed on substantial footings at all the new camp sites. Ten of the grills have been completed in the blacksmith shop which now allows the building of complete structures to go forward.

A small amount of obliteration in barren areas and along old roads has been carried through this month.

Our equipment has taken on new life of late due to the work performed by our recently acquired mechanic, Lawrence Scherier. Scherier is continually showing his ability in the mechanical field.

YUCCA HOUSE; HOVENWEEP

I left Chaco at 8 a.m., July 19, enroute to Yucca House and Hovenweep. I visited Mesa Verde National Park on this trip for the purpose of familiarizing myself with that Park and the type of service rendered there. I had planned for the past year to make the trip, but until I got a Ranger, I did not feel like leaving this Monument for a two-day trip.

I arrived at Mesa Verde at 2 p.m., made the Ruins trip and scenic drives with Park Naturalist Frank on a special tour. After visiting with Superintendent Leavitt and his office staff, I had the pleasure of having dinner with Chief Ranger and Mrs. Markley.

Then to the campfire lecture which lasted about two hours and was time well spent. I put all this in my report because I think it is very important that a Custodian learn all he can about the Service and the surrounding country.

I left Mesa Verde at 5 a.m. on the 20th and went down McElmo Canyon and out on the Mesa to Hovenweep. The next four hours I spent climbing around in those canyons, inspecting cliff dwellings, square towers, and ruins. I found several cliff dwellings this trip that I had never found before. There were no evidences of fresh vandalism around the ruins. A heavy rain had fallen the day before and I found the road

YUCCA HOUSE, HOVENWEEP (CONT.)

in McElmo Canyon quite slippery. I found only one fresh car track since the rain.

I left Hovenweep and arrived at Yucca House at 2:30 p.m.---inspected the ruins and found everything in fair shape. There were no stock in or around the ruins. No signs of fresh digging other than prairie dogs. I spent considerable time repairing the fence and gates. The Monument is now fenced up and the gates shut so that no livestock can roam promiscuously over the ruins.

---By Carrol Miller, Custodian, Chaco Canyon

Spent July 24 working on the fence at Hovenweep, and on my next visit there will try to fix up some other things. Since leaving this morning (July 25) I've thought of a couple of items already. Just now I am writing this while having a leak in the radiator fixed; after lunch I shall go to Hovenweep. I imagine I shall be at Arches National Monument before the end of the week and wander around the Lukachukai region next week.

I was at Yucca House from 4 p.m. July 23 to 8:30 a.m. July 25. The ruins seem to be in fair condition; none of the holes dug by pot-hunters look at all recent.

The entire fence has been tightened and repaired; many of the posts are not very solid but it is not essential that they be reset immediately. The gate on the southeast side was fastened up so that it cannot be opened and becomes a part of the fence; there is no necessity for visitors to drive onto the Monument---they can park outside and walk in through the opening in the fence behind Mr. Houston Ismay's house. This arrangement is satisfactory to the Ismays. The approach to the north gate is barred by a fence recently constructed by Mr. Ismay. The north gate, although badly battered and dilapidated, will suffice to keep out stock if it is kept chained.

According to Mr. Ismay, the large gully across the southwest corner of the Monument has done no cutting for two years; it presents no immediate problem, although a little erosion control work would be a good idea. A sort of little marsh just beside Upper House is quite a nice home for mosquitos and should perhaps be drained.

Highway 666 is in excellent condition from Shiprock to Cortez, considerably smoother than for example the road from Aztec to Shiprock. The road in to the Monument from the highway is rather bad in spots but navigable.

Mr. Ray Ismay is away at present; I found both Mr. Houston Ismay and his wife very friendly and cooperative.

There have been relatively few visitors to the Monument lately, according to Mr. Ismay.

YUCCA HOUSE, HOVENWEEP (CONT.)

One small rattlesnake was encountered along the south fence.

The present arrangement seems to me sufficient for protection of the ruins at the present time. The Ismays keep an eye on the place fairly continuously, and there is little danger from pothunters and vandals. At some future date it would be fine to have a regular custodian and to encourage tourists to visit Yucca House, but that will entail further repairs to the fence and improvement of the road in from the highway.

TUMACACORI

By M.O. Evenstad, Park Ranger

Visitors for the month totalled 712. By comparing with the figures for the corresponding period last year we find an increase of over 35% over the 526 reported last July. Twenty nine states, the District of Columbia, Alaska, Ireland, and Mexico were represented.

We had a pleasant visit with the Boss on the 3rd, who in company with his daughter Nancy Margaret, accompanied Mr. and Mrs. Charles R. Brill of the Washington Office on a visit to the Monument.

On the 18th, Dr. H.C. Bryant of the Washington Office, accompanied by Junior Park Naturalist Louis R. Caywood, stopped in for a short visit.

Senor Plutarco E. Calles, former president of Mexico was a visitor on the 21st. An interesting as well as interested visito was an old Spaniard by name of Vincent Ferrer who had visited the Monument in 1861 when he was a boy of 11. He seemed to have a good memory and recalled several features. He was looking over the walls inside the cemetery, but seemed to be dissatisfied about something. Finally he went out on the west side of the wall, and found what he was looking for, namely, the ornamental daubs of slag and broken brick.

He also claimed there were several tanks that had been located west of the grounds, and the buildings, and seemed to be very much pleased at having had the opportunity of seeing the place again after so many years.

During the month the following publications were received from the Headquarters Office: Preliminary Report on the Ethnography of the Southwest; A Report on the Geology of the Southwestern United States; Material Culture of the Pima, Papago, and Western Apache; Chronology of Tumacacori National Monument. So far, I have looke over only the last named publication, and in my opinion it fills a real need. In order to get the information which is condensed in this little volume, it would be necessary to read many volumes written on the subject of Tumacacori Mission, and the Mission history in general. That, of course, would be well and good, but a condensed publication such as that mentioned serves a real purpose.

TUMACACORI (CONT.)

Weather continues hot, a a general thing. However, we have had some cloudy weather, and on the 12th we had a good shower of rain that climaxed small showers of several days before. We also had a real heavy rain on the 20th that must have totalled close to an inch. I would like to have an authentic record of the weather at this Monument, and especially of the rainfall. Do you think it feasible to have this place designated as an official station?

At the time of this writing a crew of men from the telephone company is running in a telephone line to the Custodian's residence. This will be a considerable improvement in the administration of this Monument. Heretofore, if we wished to telephone anyone, it was necessary to drive to Tubac or Nogales, and for anyone to get us involved a messenger fee. At the request of the Boss, I took some tentative measurements for running in electricity here from the Hi-line. If we could provide for some electrification at this place, that, too, would be a big improvement. It would enable us to run fans during the hot days, pump water, etc., as well as provide lights for the various buildings, which we now have more or less spasmodically from the little Westinghouse plant, augmented by Coleman lamps.

During the month, the Acting Custodian had the well and tank cleaned in the water system, as well as making several repairs. Visitors came rather irregularly, running from zero one day to 116 on the Fourth. Biggest Sunday total was 85; smallest, 39. All in all I have had an interesting and busy month.

WALNUT CANYON

By Paul Beaubien, Acting Custodian

1,982 registrations this month with most states represented. There were three parties from Canada, three from Mexico, two from Germany, two from Scotland, and one each from Manchoukuo, Wales, Russia, and the Canal Zone. Have had no one from Conn., Del., N.H., R.I., or S.C., in the last two months.

Among the visitors was an elderly lady who live at Walnut Canyon from 1904 to 1920. She said the buildings here were built in 1904 with old logs from an abandoned logging camp. The chicken yard had to be screened over the top to keep out the wild turkeys, while mountain lions were common in the canyon.

She did a thriving business in curios. Beads from the cliff dwellings often sold for a dollar apiece, while arrow heads sold from 25 cents to a dollar. Prices for skeletal remains ranged from 65 cents for a mummified hand to six dollars for a skull punctured by a bullet (??).

Of special interest were a few earthquakes, the most severe being in 1906 just after the "fire" in San Francisco. This was strong enough to shake

WALNUT CANYON (CONT.)

cupboards from the walls of the residence. Perhaps an earthquake would help explain why some tall pines are now leaning at an unorthodox angle.

John H. Diehl and Bob Rose arrived about mid-July with news that there was yet a chance of a C.C.C. camp near here. A few days later Andy Clark and crew arrived to take topography, so I'm all excited again.

Mr. Diehl returned later with Hugh Miller. Was certainly glad to see Hugh and hope he can make periodic trips in the future. Among other things they inspected the territory involved in the proposed addition to the Monument. Mssrs. Monroe and Oldham of the Forest Service accompanied them.

While the Forest Service people were here I inquired about the mistletoe which occurs in some of the junipers. Was informed that it could become quite serious and kill the trees, so will end the report with a request for a visit from someone who knows their mistletoe.

CAPULIN

By Homer J. Farr, Custodian

It seems that July has rolled around before I had hardly finished the June Report.

Visitors have been very plentiful this month---quite a number of large schools have visited us. The High School group from Lufkin, Texas, was here composed of about a hundred. The Southwestern Teachers College from Canyon, Texas, and some other smaller parties also were our welcome visitors. This coming Sunday I am advised and requested to be at the Monument and escort the Epworth League Convention.

All in all, we shall have a little over 5,000 this month.

The Chairmen of the Chambers of Commerce of Raton, N.M., and Dalhart, Tex., have been boosting Capulin Mountain National Monument to the travelers of Highway 87 and have swelled the number of visitors considerably.

Compliments were paid the Custodian during the Convention of the Colorado-to-Gulf Highway Association this past week concerning condition of roads and trails on the Monument.

Weather all this month has been very cool, and pleasant---a number of local showers aided the wealth of flowers in bloom. The Custodian is in hot water trying to get some decent pictures of this Mountain.

The topographical lay of this Old Volcano is such that it is almost impossible to get a representative picture without an airplane, and the only heavier-than-air machine the Custodian has is an old Dodge, and she refuses to fly. Possibly some lone air scout will pass by some time and give us a lift. I have had this summer dozens and dozens of requests from

CAPULIN MOUNTAIN (CONT.)

Chamber of Commerce heads to private M.D.'s from Denver to Dallas, requesting 5x7 glossy prints of this Volcano. These are expensive, and with no funds to provide, I have accommodated them only in part.

PIPE SPRING

By Leonard Heaton, Acting Custodian

I have had a busy month with travel and CCC men, so my report will be in two parts: first, that of the usual news from the Monument; and, second, that of CCC activities.

Our travel for the month is as follows:

U.S.N.P.S.	13	Calif.	11	Of this number, 33 camped, and 26 CCC men were stationed for one week or more.
U.S.N.F.S.	1	Nev.	2	
U.S. Army	5	D.C.	2	
Ariz.	115	CCC men	54	
Utah	104	Minn.	4	
N.Y.	3			
Ill.	2	Total	304	

Plus local travel, my count is 626. This increase is due to the coming in of the CCC camp, men looking for work on the construction of the camp, and the freighting in of the material. The total travel is 930.

Among visitors this month were Mrs. Julander, grand-daughter of Mr. Winsor who built the fort; Mrs. Kuehl, Cowell, Carrol, and Leslie of the National Park Service; Messrs. Capton, Swift, Marshall, Peterson, and Root of the U.S. Army; and Lieut. Ed. Cantor who is stationed here in charge of the CCC Camp, Co. 3287, D.C. 44.

Another bit of news came in of the existence of a diary of Charles Lowell Walker, a stone mason working here at Pipe Springs in 1869 and 1870. I am going to get a copy of this diary if possible.

We had one camper say that in all of her travels this summer she had not been awakened by so many birds singing as here at Pipe Springs. Now I am wondering if we are going to drive away some of our birds by having the CCC camp here.

I want to tell you about that old porky that kept coming around last month. The other night I found the reason for him staying so close. Back on the hill about 250 feet among the broken rocks, some CCC boys and I found the home of Mr. and Mrs. Porcupine and several little Porcupines. This is the first den of the kind I have known on the Monument.

July 4, representatives of the Army and Division of Grazing came in to check on the campsite for the CCC's, and then July 12 at one a.m. ten trucks came in bringing 24 CCC boys and two officers. These were advance

PIPE SPRING (CONT.)

men, later cut to 12, and are being replaced by boys from Utah.

Lumber commenced coming July 17 for buildings, and by July 24 200 CCC feet had been placed on the ground. Twenty three men started the carpentry work and today 10 more men were added. They have the foundations of nine buildings up to the floor. Forester says in about three weeks this camp will be about finished. If they keep up the speed of yesterday and today, I think the camp will be ready for the eastern boys by the last of August.

As you know it was planned to have the camp in the southeastern corner of the Monument, but when Mr. Kiehl came in with Mr. Cowell, it was found that the camp and the campground would conflict, so the camp location was changed to the southwest corner, which will suit us better, although it will interfere some with the view out across the desert.

Lieut. Cantor is a very fine young man, and there will be no conflict between us as we have been working together very well, and his boys have not given us a bit of bother---in fact, they have been a help. If we can get a bunch of men like the first 12, I will have no worries from the CCC boys.

This will be the last report from me until the September one, as I leave here August 11 to camp in Kanab before our trip to Washington, D.C. About 20 boys from Kanab will go back. Will have my wife prepare some of the August report, and an acting custodian will function while I am away.

ENGINEERING

J.H. Diehl Report:

At Chaco Canyon National Monument, engineering activity for the month of July was centered on completion of the fence line survey, and topographic survey of about 22 acres of the Headquarters Area.

This work was completed July 17, and the survey party then moved to Walnut Canyon, and began the topographic survey of the proposed headquarters area at this Monument.

At Chiricahua, a survey crew has been busy taking cross-sections of the highway preparatory to plans for flattening the slopes for stability and landscape appearance.

On ECW work at this Monument a survey crew has been busy establishing lines and grades for the various construction projects, and has also staked the proposed telephone line from the Monument Headquarters to Portal, Ariz.

At Bandelier, alignment stakes and grades for construction projects

J.H. DIEHL ENGINEERING REPORT (CONT.)

ECW have been set, and alignment and cross-sections for the proposed headquarters residence road have been surveyed, preparatory to preparation of detail for this project.

The Park Engineer has visited a number of other Monuments of this district for the purpose of looking into engineering features and boundary extensions.

Office work has been confined to map preparation and data recording.

J.B. Hamilton Report

Aztec Ruins: I went to Aztec the 8th and 18th. The first time I came in response to Custodian Faris' telephone message that he had \$5,400 new money to spend for paving the parking area and other work. When I arrived he wanted to start spending the next day. So did I, for that matter, but I had to explain that he first must have plans with a lot of important signatures on them. I telegraphed my chief to hurry the plans and came away leaving Johnwill sadder and wiser.

On the 18th I went again with Architect Richey to discuss the preliminary plans sent for discussion. As so often happens in the Park Service, the Architects' ideas of appearance did not match the Engineers' idea of permanency of construction. I suppose Johnwill is sadder and wiser yet.

Meanwhile the spending of his \$5,400 waits the all important signatures indicating that everybody is, if not satisfied, at least willing to go ahead on an agreed basis.

Canyon de Chelly: I went over to Thunderbird Ranch on business connected with the construction of the sewer and water systems there three times this month. That means 36 hours of driving time or better.

On the 7th and 8th I went to see what sort of a start Foreman H.M. Brown was making and to see what materials were coming as they should. Found Mr. Brown off to a good start and most materials on hand or on the way.

In response to his telegram I went over on the 16th and set final grades for the sewer trench. As the sewer has to be laid on a very flat slope, more than ordinary care had to be used to get an exact grade and to build to it. I took over joint filler, oakum, and some tools left from the Mesa Verde sewer job. The work was progressing smoothly.

Just three days later a flood came out of the canyon mouth and washed 350 feet of trench and the septic tank excavation nearly full of muck. It also filled about 125 feet of carefully laid sewer tile and warped it off line and grade. The extra cost due to the flood is about \$300 to \$325.

CASA GRANDE

The month of July was a quiet one---only 1,198 visitors in 343 cars from 38 states, the District of Columbia, and England. This is an increase of only 35 visitors over the same month in 1934.

Personnel vacancies were not filled during the month, and guiding was handled by Acting Ranger Woodrow Spires and members of the Headquarters staff.

July was relatively cool. Maximum temperature was 109 on the 16th and 26th; minimum was 56 on the 4th. Precipitation was limited to .601 inch on the 27th.

Prominent visitors included Dr. Byron Cummings of the University of Arizona, G.C. Bernard and Dr. W.D. Strong, of the Smithsonian Institution, Washington, D.C.

Assistant Director H.C. Bryant visited the Monument July 20.

We wish to acknowledge with appreciation the loan of a Hohokam pit house model after the type found at the Grewe Site a mile east of the Monument. The model was loaned to us by Grand Canyon National Park, and is installed in our museum where it is giving very good service.

A Comparative Pottery case was installed during the month using a fine cartograph made for the Monument by the Berkeley Educational Office.

Mesquite seeds have been obtained through the courtesy of the Boyce Thompson Southwestern Arboretum, and it is planned to plant the area between Ruins and residences to form a screen. This work will be done in September.

LANDSCAPING

Charles A. Richey Report

On July 3, I contacted Vernon Randeau of the Land Purchase Division of Mr. Maier's Office on the proposed White Sands National Monument addition. At this time possible development for this area was discussed.

During the month of July two field trips were made to Bandelier National Monument due to the amount of building construction in progress.

I am glad to inform you that the landscape and architectural features of the work are satisfactory and that the construction work is making good progress.

On July 11, Engineer Diehl, Custodian Jackson, Project Superintendent

LANDSCAPING REPORT (CONT.)

Chase, Naturalist Rose, Landscape Architect Morse, and I made a review of possible projects for the Sixth Period Program, which I trust has come to your attention.

The same party reviewed the approved ECW Project No. 29, Class 203, Road Betterments in the Detached Section. This project is the betterment of the road through the detached section to the Los Alamos Ranch School. Work on this road would be a very large undertaking and it seems more or less agreed between the different parties that other possible locations should be considered and the route further studied before work should be started on this project.

El Rito de los Frijoles is very low and the pipe line which collects water from the upper end of this creek is proving inadequate during this season.

On July 18, a field trip was made to Aztec Ruins National Monument where the recently allotted Minor Roads and Trails Project (Paving Parking Area, \$6,000.00) was reviewed by Custodian Faris. The information covering this trip was taken up with the office by letter with a copy sent to you.

NATURALIST DIVISION

Robert H. Rose, Park Naturalist

July, 1935 makes history in the Naturalist Division for during the month the appointment of a new Junior Park Naturalist to the Headquarters Staff was confirmed. This position has been filled by the promotional transfer of Louis R. Caywood, Ranger at Casa Grande National Monument for the past year. While we have been short on personnel during the month due to delays in getting the Casa Grande Custodian and Ranger positions filled, the Junior Naturalist position just filled is a real milestone and already Caywood is out on emergency and relief assignment in the field. Such work will be the duty of one Junior Naturalist for full time for the next year or two.

Staff

The headquarters staff of this division consisted during the month of the Park Naturalist, Junior Naturalist Dale King and of Junior Naturalist Louis Caywood, whose appointment became effective about the middle of the month.

The Park Naturalist was at Headquarters from July 1 to 8, inclusive, during which time the following work received attention: (1) preparation of the June report of the Naturalist Division; (2) assistance on the general Southwestern Monuments report; (3) some relief work on public contacts; and (4) preparation of the report on the inspection of the proposed Kofa Mountains National Monument area.

NATURALIST DIVISION REPORT (CONT.)

On July 9 the Park Naturalist left headquarters on a field trip in company with Park Engineer John Diehl. Monuments included were Bandelier, Chaco Canyon, El Morro, Canyon de Chelly, Walnut Canyon, Wupatki, Montezuma Castle, and Tonto. Return to Headquarters was made on the 18th. The following matters were given attention at some of the monuments included in this trip: (1) organization of lists of references needed at these Monuments; (2) looking into problems relating to water development; and (3) interviewing prospective applicants for temporary ranger positions.

With the exception of some relief on public contacts work, time between July 20 and the 27th, inclusive, was occupied in the preparation of the inspection report on the proposed Organ Pipe National Monument area. This report has been rough drafted and revised several times and now awaits receipt of certain maps and pictures before it is complete.

Junior Naturalist Dale King has been at Headquarters during the entire month. A brief account of his activities will be found toward the end of this report.

Junior Naturalist Louis Caywood was on duty at Headquarters until July 15. Leaving the morning of the 15th, he met Assistant Director Bryant at Douglas from where by car they went to Chiricahua National Monument. Spending two days at Chiricahua they then came to headquarters via Tumacacori and Tucson arriving the evening of the 18th. On the 19th a field trip from headquarters was arranged which included Boyce Thompson Southwestern Arboretum, the Gila Pueblo and Tonto Cliff Dwellings. On the 20th, Dr. Bryant continued his southwestern trip by accompanying Caywood to Canyon de Chelly. Spending a day at de Chelly, they proceeded to Grand Canyon by way of the Hopi villages. At the Canyon Dr. Bryant remained to continue his journey west by rail while Caywood returned to de Chelly for an assignment of about one month.

General Personnel

Several temporary ranger positions have been filled at Monuments where summer travel is heaviest. In order to introduce new names to the Southwestern Monuments folk generally, the new temporary rangers will be listed here:

Lewis T. McKinney, Chaco Canyon National Monument. He has had wide experience in many government positions requiring application of skill in practical lines and has proven ability in public contacts and other ranger work. He will be of great assistance to Custodian Carroll Miller at that busy Monument.

James D. Harritt is now at Canyon de Chelly as temporary ranger. With his past experience in Archeology and general ability he is handling his work like an old hand and helps relieve the

NATURALIST DIVISION REPORT (CONT.)

emergency on lack of ranger assistance at de Chelly.

J.W. Hendron comes into the Service as temporary ranger at Bandelier National Monument. Hendron has had experience in studies and field work relative to the Rio Grande region in particular. He is stepping right into a full sized job and is giving Custodian Jackson capable assistance during a very busy season at Bandelier.

E.W. Lewis has now been serving as temporary ranger at Aztec for the past several weeks. He is applying himself to his job with energy and enthusiasm in his new position.

Erik Reed is filling one of those unique ranger assignments in our district as travelling ranger in the Yucca House---Hovenweep district. Posting against vandalism, patching gates and fences, enlisting community aid in protection of ruins in that district and giving detailed reports on conditions of ruins, roads, etc., are among his duties. Observations on travel are also being made. A glimpse of Mr. Reed's report elsewhere will show that he is getting the proper angle on this important assignment.

The temporary rangers listed above are new in our organization. We cannot overestimate the importance of their duties which consist principally of contacting our visitors and giving them and interesting and understandable story of the principal features of interest in their particular Monuments. We extend a warm welcome to our new temporary men. Our headquarters members of the Naturalist Division are anxious to meet the new men and to discuss public contacts problems with them and be of assistance wherever possible.

JUNIOR NATURALIST KING REPORT

Ordered from Berkeley Office: 25 botanical presses; one small display case.

Mailed to Field: 7 reference books; 33 Biological Survey Reports; 55 Field Division of Education publications; Natural History File to Tonto; Bird banding files to Canyon de Chelly, Wupatki, and Navajo; office supplies to Tonto and Erik Reed.

Office Work:

Cut stencils for: July 13 Broadcast (19 pages)

July Monthly Report (74 pages)

Cut stencils and mimeographed: 3,000 Bird banding file cards; 1,000 Bandelier rules folders; 38 Prospects for July Report; 300 library cards.

Assembled and organized vacation and relief data

Wrote 47 letters

JUNIOR NATURALIST KING REPORT (cont.)

Museum Work:-

Obtained Hohokam pit house model from Grand Canyon National Park
Installed Comparative Pottery Case at Casa Grande, with help of Louis
Caywood
Stained Moosberg Cremation Burial case
Transferred Casa Grande bird banding records to permanent file cards
" " " Natural History " " " "
Treated two cases against termites
Ordered, received, checked laboratory chemicals
Transferred biological specimens to new jars and alcohol

Spent one day on previously described trip with Dr. Bryant.

Guided remainder of time: 1,392 minutes; about four 8-hour days.

CLOSING

Chief, I am not handing out soft soap when I say I think this is the best report these boys have ever built. I have said that several times in the last year and I meant it every time. That is as it should be, of course, but I am a little surprised at the number of times it has happened lately. It can't always be that new and more exciting things happen each month; some fellows are bound to have an off month when nothing happens, bad weather causes a slump in visitors, disappointments turn up on badly wanted personnel or projects, yet it seems to me these men are turning out better and better reports that give us a truer idea of what is happening in their part of the district.

Dale and I had an argument this morning about the danger of getting the Southwestern Monuments Report too long. One of us held that it would get so bulky that its very size would scare folks into skipping it and reading something else that looked easier; that one famous reporter wrote a description of the flood in less than 600 words; that what we wanted was short reports with a punch; that we ought to leave them asking for more, and so on. The other one argued: put it all in as long as there isn't duplication and it is of interest; the condensed report at the lead-off will take care of anyone who is in a hurry and looking only for high points; nobody is expected to read the whole thing from cover to cover; the fields of interest are wide and varied, let each reader browse where he finds good feeding; the whole thing is brought together here for the future, as well as for the present, and some of this which seems to be of no interest now will be of peculiar interest in future years. Who are we to decide what to throw out? Fifty years from now some minor detail which is too common for us to notice will constitute the high light of the month's report to the interested reader of those times.

Like a lot of our arguments, this one was not settled. Its various angles will be dragged out and overhauled from time to time and gradually

CLOSING (CONT.)

we shall work out the answer.

In the meantime, it pleases me that we are not going stale on report making, but almost from month to month we are turning out better and better material.

Cordially,

Frank Pinkley
Superintendent



CONCERNING THE SEAL OF THE SOUTHWESTERN MONUMENTS

Perhaps you newcomers to the Monuments have noticed the seal which adorns the Cover of our Monthly Reports. The story of its origin was printed in the February Report, but it might well be repeated here so that you may be familiar with its history.

It was hatched about nine o'clock on the night of February 9, 1935, by J.H. Tovrea, Hugh Miller, and the Boss who were holding a Taurian session in the East Room of the Headquarters Building. A rough draft was struck out that night by Tov and that went through the mill the next day and about everyone on the place had a say about it. The net result is standing on its merits."

Among the Southwestern Monuments the geologic units are represented by the mountain in the background; the prehistoric units by the ruin in the left middle ground; the historic units by the church in the foreground; and the botanic units by the cactus near the center.

Behind and over all rises the sun of our destiny: on its way up and nothing in the world can stop us so long as we hold our Esprit de Corps.

And, just to show that we are serious, but not too serious, we put the rattler in the immediate foreground to show that we are good fighters, gentlemen who do not strike without warning, but when we do strike we mean business, and, finally, that it takes the wisdom of a serpent to operate this far-flung group of the most interesting units in the National Park system on the money we get!

THE
SUPPLEMENT
TO THE
MONTHLY REPORT
FOR
THE
SOUTHWESTERN
MONUMENTS

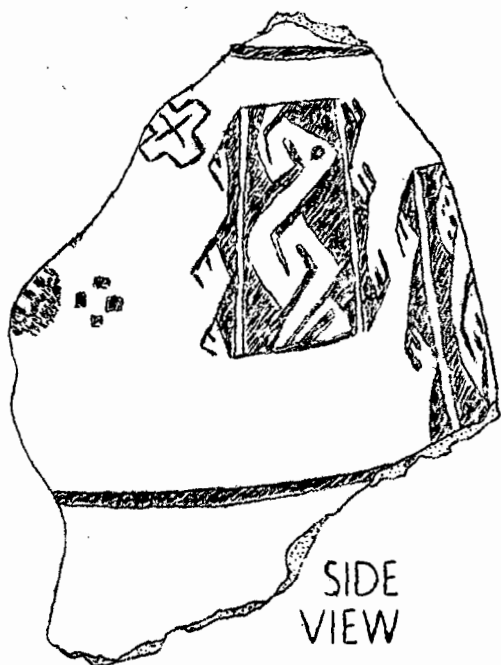


WHERE WE ARE SERIOUS
-BUT NOT TOO SERIOUS



RED ON BUFF FIGURINE

By
Dale S. King



A fragmentary human figurine of pottery, sketches of which appear with this note, was found in January, 1935, by our good friend, Dr. E.C. Gipe. The specimen was discovered in the trash mound south of Compound A of Casa Grande National Monument---it had washed out of the side of a test trench cut by the Gila Pueblo in 1927.

Tentatively identified, it is of the type known as Sacaton Red on Buff.

Although only a portion of the left side of the figure was found, the fact is immediately apparent that it represents a human figure, probably seated, and possibly with legs crossed. Hands were clasped over the somewhat protruding abdomen. The figurine may represent a pregnant woman.

The figure was evidently clothed. A necklace holds suspended a gorget, which, strangely enough, is not symmetrical---a volute is apparent on the right side. The necklace also had a pendant in the back. The left arm is well modeled and four rectangular dots on the wrist indicate a bracelet. On the left pectoral region is a cross enclosed by a single framing line.

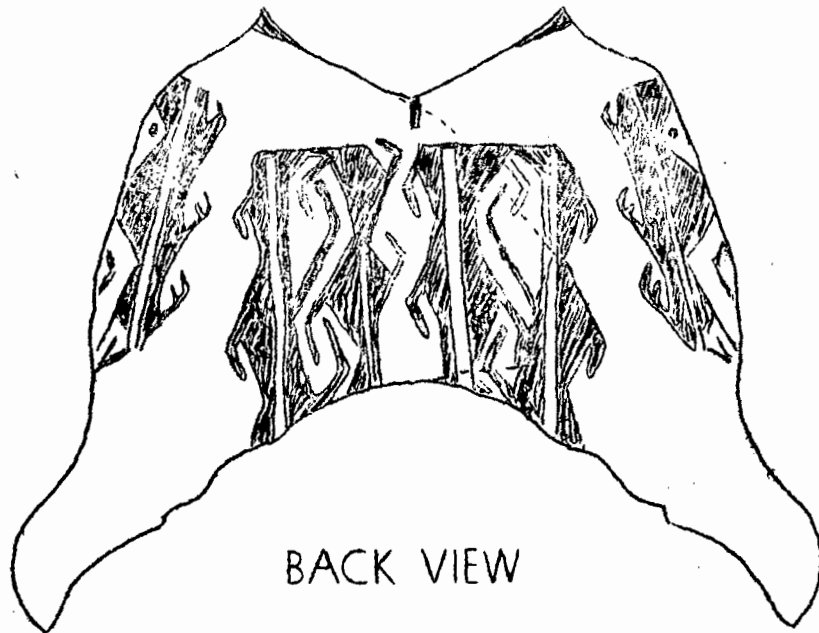
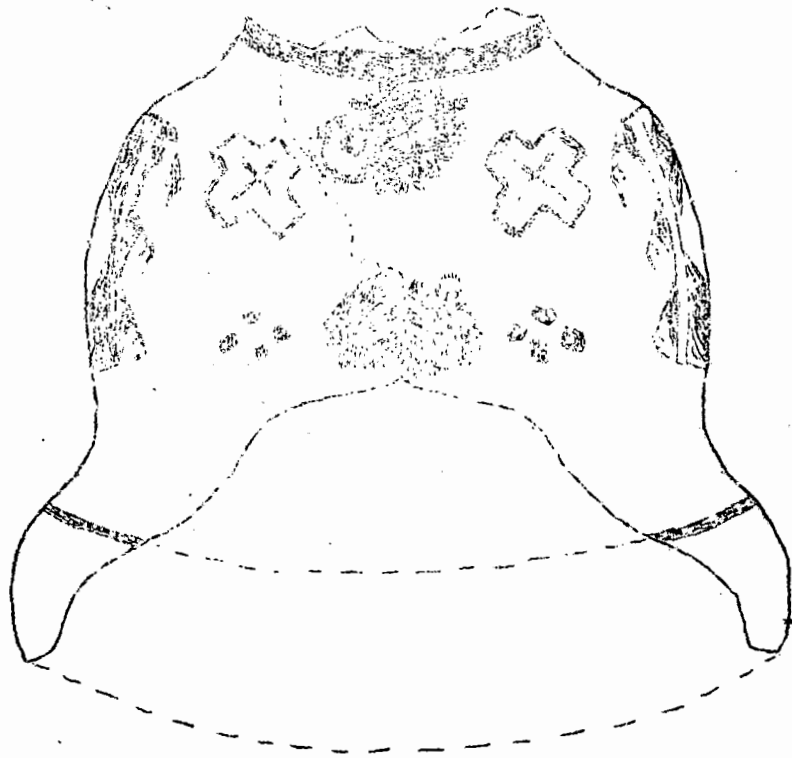
On the left upper arm is a design well enough reproduced in the sketches to require no further description. Note, however, that the design is asymmetrical---a dot appears near the upper right hand triangle, and the lower right hand triangle is broken to include a diagonal line. Two similar designs appear on the back, but do not include the dot. The lower part of the figures is missing.

A line near the bottom of the figurine seems to indicate a skirt.

Sketches are actual size. The missing half of the specimen has been hypothetically duplicated as if the right side were the same as the left. Dotted lines show the extent of the original fragment. Thus, everything to the right of the dotted line in the Front View is original, and likewise with everything to the left of the dotted line in the Back View. No attempt at restoration was made in the Side View sketch.

Interior is somewhat smoke smudged and finished roughly. The inside neck portion shows a mark as if the clay were molded on a flat piece of wood or some similar object. Walls average $\frac{3}{8}$ " in thickness.

FRONT VIEW



BACK VIEW

UNITED STATES
DEPARTMENT OF THE INTERIOR
National Park Service
Washington

103346

July 1, 1935

MEMORANDUM for all Field Officers:

The following personal statement concerning the use of poison against vertebrate animal life, prepared by Dr. Joseph Grinnell of the University of California, is worthy of consideration. The statement, self-explanatory, is offered as a logical, rational appraisal of practices which are generally more subject to prejudice and creed than fact. Since the national park policy regarding the use of poison is already well defined, Dr. Grinnell's statement is quoted for your information:

"After some years of watching the course of events with respect to the fortunes of our native wild animal life, of observing human behavior in connection therewith, and of reflecting upon the meaning of facts thus gathered, especially upon what they would seem to indicate for the future, I have come to certain conclusions in regard to man's proper treatment of animal life. While these conclusions are not held as absolutely final, they are offered as a down-to-date statement of my convictions, wholly justified, I think, on the basis of my personal knowledge and my individual powers of understanding at this present time.

"I believe it is wrong, economically, scientifically, esthetically and on humanitarian grounds, to use poison of any kind, against birds of any species whatsoever, anywhere. This conviction is held in the belief that it is the only one consistent with the greatest good to the greatest number of our people---overwhelmingly in the interests of the majority of our citizens over a long-time period. The aggregate value of this class of animals far exceed the sum total of harm done. Reduction of damage by birds to crops locally is possible by methods other than the poison method.

"I believe that control measures (other than by the use of thallium or similar; y dangerous poisons) against need to be, and should be, applied effectively within thickly settled territory and on cultivated lands, as may be required in the interests of public health and of agriculture; but

"I believe it is wrong, in the widest economic interests, to poison rodents or any other native vertebrate animal life on uncultivated, that is, unfarmed lands. Especially, rodents which burrow serve as natural cultivators of the soil. This service is needed continually on our western watersheds in order

"to maintain the plant cover essential to water storage and to protection against erosion.

"Finally, I believe it is economically wrong to use poison against any so-called predatory animals anywhere. The occasional 'killers' among these animals can be done away with effectively and with more safety to other, valuable wild life, by employing other well-known and effective means. Carnivorous mammals regulate the numbers of rodents on the land, and their annual increase temperately drawn upon furnishes a valuable out put of fur.

"In the above proscriptions as to the use of poison, I make exception, be it noted, of the times and places when contagious disease is an actual and immediate menace to human life or to domesticated animal life, on quite the same principle that the forester practices backfiring to save our forests from the further sweep of devastating conflagration."

(Sgd) Hillory A. Tolson
Acting Associate Director

CHIRICAHUA NOTES

By Charles E. Powell

On the little trip mentioned in the Chiricahua Report, Mr. F.H. Hands showed us a mounted bird called a Grooved-bill Ani which he had collected near here, and that is another thing I don't believe yet. Not that I doubt Mr. Hand's word, but I am rather inclined to believe that "there ain't no such bird." Imagine a bird which looks like a blackbird, only larger, with an enormous grooved beak and you have my impression of what I saw. I rub my eyes and wonder if I was dreaming. This bird was found in the Chiricahuas in October, 1928, and will later be seen at the University of Arizona. Dr. Bryant asked me to mention this in my report.

Also at his request I noted that Mr. Hands reports the killing of a jaguar on what is now the Monument, in January, 1912. None have been found here since that time, although the Lee Brothers, nationally known hunters of predatory animals, frequently report cougars or mountain lions. This morning a white-tailed deer, heavy with faun, crossed the road in front of the car, in Bonita Canyon.

Caywood told me to write for some books, and gave me several pointers on the study of wild life. Gathered some plant specimens on the trip, and learned how to remove a spare tire from a Ford V-8. This was once when the Ranger had a better time than the visitors. I will never forget the pleasure of rolling down into Cave Creek, watching the deer scurry away as we passed, listening to Dr. Bryant explaining about trees, plants, and birds, and the bit of song he was singing about the "golden rippling sunshine." Sorry that he could not stay longer.

We have been sending specimens of our vegetation, etc., to the

CHIRICAHUA NOTES (CONT.)

University for identification. Let me quote Dr. Thornber's letter:

"No. 5 is *Meibomia*, but I can hardly believe that the flower that you have enclosed is a flower of this species. This flower to me is entirely too large, and I will be glad to have you check up on this matter very closely."

It is true that the flower mentioned is unbelievably large, but we are glad that it is, and that this beautiful blossom chooses to grow in the Chiricahuas. We have sent a perfect specimen to Dr. Thornber---root, plant, flower, and seed---and we hope to have the name on a label later.

Here is another quotation: "No. 9 I will hold. It is the specimen you sent me before that I have not yet identified, but now I am sure I will be able to identify it without difficulty, and I will write you about this a little later." And then in long hand, the Dean writes "It is *Verbascum virgatum* s.latus."

Is it any wonder that I find these studies fascinating? I believe that Chiricahua will astonish any scientist who will come here to study.

Lest it be thought that Dr. Thornber should have been able to identify such plants more readily, I wish to emphasize the fact that plants here have many unusual characteristics, and that the good Doctor is now on a vacation trip to California, and is away from his library. He helps me out as a diversion, and he would have spent a part of his vacation here but for an automobile accident which put both Mrs. Thornber and him in the hospital.

As an afterthought, I want to ask how I can convince Dr. Fred Gibson of the Boyce Thompson Arboretum that Saguaro National Monument has taller cacti, more of them, larger cristate growths, cacti with more branches, and more varieties than any place else on earth, when I am over here in the Chiricahuas? Just wait, and we will yet set a mark for him to shoot at.

DUMB BUDDY

Here's one that W. H. Smith reports from Gran Quivira:

"They pulled one on me the other day. I had a car of Mexicans who could not speak English very well, and I can't use the Spanish language. We were looking at the Mission and I had told these people about three times that it was built in 1650.

"After a while a young man spoke up and said, 'Jees Christi, long time he been here. I been here 15 years ago, and he here then.' I just about gave up after a crack like that, and told them to look around."

BIRDS AT NAVAJO

By Milton Wetherill

June 18 to July 20, 1935:

Turkey vulture---*Cathartes aura septentrionalis*
Western Red-tail---*Buteo borealis calurus*
Sharp-shinned Hawk---*Accipiter velox*
Desert Sparrow Hawk---*Falco sparverius phalaena*
Western Mourning Dove---*Zenaidura macroura marginella*
White-throated Swift---*Aeronautes saxatalis*
Broad-tailed Humming Bird---*Selasphorus platycircus*
Costa Humming Bird---*Calypte Costae*
Red-shafted Flicker---*Colaptes cafer collaris*
White-breasted Woodpecker---*Dryobates villosus leucothoractis*
Say Phoebe---*Sayornis saya*
Northern Violet-green Swallow---*Tachycineta thalassina*
Long-crested Jay---*Cyanocitta stelleri diademata*
Woodhouse Jay---*Aphelocoma californica woodhousei*
American Raven---*Corvus corax sinuatus*
Pinyon Jay---*Cyanoccephalus cyanocephalus*
Mountain chickadee---*Parus gambelii*
Gray Titmouse---*Parus inornatus griseus*
Lead-colored Bush Tit---*Parus plumbeus*
Rocky Mountain Nuthatch---*Sitta carolinensis nelsoni*
Canyon Wren---*Catherpes mexicanus conspersus*
Rock Wren---*Salpinctes obsoletus*
Western Robin---*Turdus migratorius propinquus*
Western Gnatcatcher---*Polioptila caerulea obscura*
Western Tanager---*Piranga ludoviciana*
Rocky Mountain Black-headed Grosbeak---*Hedymeles melanocephalus*
papago
Brewer Blackbird---*Euphagus cyanocephalus*
Spurred Towhee---*Pipilo maculatus montanus*

Also seen, June 19 to July 20:

Hopi Chipmunk---*Eutamias quadrivittatus hopiensis*
Rowley White-footed Mouse---*Peromyscus boyleyi rowleyi*
Sonora White Footed Mouse---*Peromyscus maniculatus sonoriensis*

WHITE SANDS ECOLOGY

"An Ecological Reconnaissance in the White Sands, New Mexico" is the title of an article by Fred W. Emerson in Ecology. Vol. XVI, No. 2, April, 1935. It may be possible for those interested to obtain reprints from Mr. Emerson at New Mexico Normal University, Las Vegas, New Mexico.

His summary is quoted below:

1. Studies were made of the vegetation of the White Sands in spring

WHITE SANDS ECOLOGY (CONT.)

and summer of 1934.

2. Plants seem to be in the process of migrating from outside sources into the dunes with the possible exceptions of two endemics that may have originated within the area. Some species have entered only a short distance while others have migrated several miles.

3. No seedlings establish themselves except in the flats, between the moving dunes.

4. In the flats soil water is near the surface, the water table being between 2 and 3 feet deep with moist sand reaching almost to the surface.

5. Roots must absorb water from a saturated solution of calcium sulphate.

6. Even in the most luxuriant stands of plants there is a very slight concentration of nitrates and nitrites, thus raising the question of methods of nitrogen assimilation.

7. Seven species have the power to grow upward rapidly enough to survive encroaching sand. All of these produce adventitious roots when covered. At least 55 species are limited to the flats because they can not elongate when covered.

TREASURE HUNTING AT GRAN QUIVIRA

By the Boss

In the many years the Gran Quivira Mission has been under my supervision I have dealt with several people who were seeking buried treasure there.

The tales they told showed an interesting lack of historical knowledge of the place, but I always tried to listen to their arguments as to the certainty of the buried bullion and the reasons why they should be allowed to dig it up and take it away simply because they knew where it was, with a grave face.

I suppose I have talked with 30 of these treasure seeking parties around Tumacacori and Gran Quivira. There is a fixed impression in each one's mind that the treasure belongs to him who finds it regardless of the ownership of the property upon which it is found. They grant the power of the United States Government to take the bullion away from them, but they do not consider it a right of the Government to do so. From this it follows that they will almost invariably offer to split with the Government in what they find if they are allowed to dig without inter-

TREASURE HUNTING AT GRAN QUIVIRA (CONT.)

ference. They never admit the ownership of the Government by virtue of the fact that it owns the land upon which the treasure may be found. They themselves claim ownership by virtue of the fact that they know where to find it, but, since the Government is very powerful and may cause them a lot of trouble, they are willing to propitiate it with an offering of 10% in some cases and ranging up to 50% in others, of the amount found as a sort of bribe to grease the ways and save trouble, although some of them quite frankly begrudge such expenditure.

I have been amused many times at the confusion I can cause in their minds by telling them that the Government isn't interested in finding buried treasure, and wouldn't run an exploratory trench if they presented their precious map to us for that very purpose. They just can't imagine such a situation and are completely baffled.

The other evening at a session out in our back yard someone suggested that we ought to record some of this treasure lore before it gets too far into the past. Partly for this reason and partly because if I get to talking about it I may raise some other stories among the members of our force which should also be recorded, I thought I might talk a little about the Gran Quivira treasure this month.

Several years ago we were running a small job of repair work at Gran Quivira which involved opening some new ground and repairing some walls. We were working some 10 or 12 men and the work was proceeding nicely. One day a long, lean, hungry looking man turned up on the job, and I thought he was looking for work. He came over and fell into conversation easily but showed no signs of asking for a job.

Thinking he might be a visitor, I then asked him if he wanted me to show him around the ruins. He then told me he had been over the ruins before he came around to where we were working, and that what he was really up there from southern New Mexico for was to locate the buried treasure.

Interesting, I said, but we didn't think there was any buried treasure there and we couldn't let him run random trenches looking for it and if he found it he couldn't take it away because it would belong to the Government. He was quite cast down by this because he said he had already located it and it was down only three or four feet, and it would not be a 20-minute job to dig it out.

He then offered to prove to me that he knew the spot by showing me how his instrument worked on it. We went around through the immense house mounds to a small plaza which had a slight depression at one point.

He brought his instrument out of one pocket and it proved to be a small bottle, cylindrical, with a capacity of about two ounces about half full of mercury, covered tightly with buckskin so one could not see

TREASURE HUNTING AT GRAN QUIVIRA (CONT.)

the glass of the bottle nor the mercury within it. Through the cork of the bottle a piece of fishing twine had been run and the cork had then been covered with wax.

He took a common five cent piece out of his pocket and put it in the palm of his hand, put the upper end of the fishing cord against it, holding it there with one finger, wrapped the cord two or three times around his hand, and then, spreading his feet wide apart, took a solid stance and told me to watch the instrument which hung like a plumb bob at the end of the cord a few inches above the ground.

In a few seconds, probably 20 or 30, the bob began moving back and forth in a fairly straight line. He called my attention to the fact that this line projected ahead of where we were standing would cross the light depression in the plaza.

He then moved 50 or 60 feet to our right and repeated the experiment. Again the bob swung back and forth and again the projected line crossed the shallow depression. Several times was this repeated with the same result, the projected line of the swinging bob always crossed the center of the depression.

We then went up into the depression, and, taking a shorter stretch of the line, he squatted down, putting his elbows on his knees, and we waited. This time the bob swung in a circle instead of a line and he said this was proof that he was over the treasure. From the speed of the swing he deduced that it was not very deep and from the size of the circle he deduced that it was a pretty good size amount of metal.

When I suggested that he let me take a try at it he said that the instrument would not work for everybody---that there was a personal magnetism which went through the money in his palm from his body down to the cord to the bob, and that was what caused the thing to work. If he suspected the treasure to be gold he would use a gold piece in his hand, and the bob would work for gold. If he suspected the treasure to be silver he used a silver piece and the bob would look for silver. In this case he rather figured the Padres had buried the altar furniture, such as candle sticks, crucifixes, etc., and he was working for silver with the results as outlined above.

I didn't point out to him that the five cent piece with which he was sending his personal magnetism down the string did not contain any silver, because lots of people do not know that and he was evidently one of them and would not have believed me. If his magnetic theory was right, he had located a batch of hidden nickel.

The depression, which had appealed to him so strongly as the hiding place of the treasure, was the quite common indication of a kiva, a cylindrical, semi-subterranean, ceremonial room, which after two and a

TREASURE HUNTING AT GLEN QUIVIRA (CONT.)

half centuries of abandonment had filled to the characteristic funnel-shaped depression which can be found times without number over our district among the prehistoric ruins.

Since it was part of our job to remove this debris, and examine the kiva to see what condition its walls were in, I told him that it was a kiva, that there wasn't any treasure in it, that if he still thought he was right and the treasure was buried not over three feet, he could remove the loose debris as deeply as it went but must stop when he struck a floor.

He accepted the challenge, dug about two feet, quit cold and turned in his pick and shovel before he found floor, treasure, or anything else. The next day he geared up his old Model T and pulled back into southern New Mexico making me promise that if we did find any treasure when we opened that kiva to let him know.

And so he went out of my life, at least up to the present, and all the treasure that is buried there is still there, for we never found any when we opened the kiva.

The psychology of this case interests me yet. The man was sincere, else he wouldn't have come up there halfway across the state on the expedition at the expense of 20 to 30 dollars, which, quite evidently, he could ill afford to spend. He believed thoroughly in his instrument so far as I could determine in talking with him.

Why, then, did he quit digging before he struck the floor I told him he would strike? Did he begin to have doubts, and, for fear he might prove his instrument wrong, abandon the search so he could still have the comfortable thought that the treasure was really there, but, since he couldn't have it anyway, it might as well remain there?

DERIVATION OF MONUMENT NAMES

Compiled by Robert L. Cole

CANYON DE CHELLY (NATIONAL MONUMENT)

A canyon carved by a small creek rising in the Tunichah Mountains almost exactly on the Arizona-New Mexico boundary line. A Navajo word "Tschegi" or "de sche-ay-e," "among the cliffs," "ghosts or evil spirits," Hodge. Not in any dictionary but so interpreted by Indians. Most of the year this is a dry wash but rises rapidly on occasion and is often impassable. Heads at Sonsella Buttes near the state line. Flows northwest and joins Canyon de Muerto (Canyon of Death) to form Chin Lee Creek.

Chin Lee is Navajo name for a place where water emerges from a canyon's mouth. "The orthography of Canyon de Chelly (pronounced "de

DERIVATION OF MONUMENT NAMES (CONT.)

Shay") was obtained from Senor Donaciano Vigil, Secretary of the Province of New Spain, who states that it is a word of Indian origin, probably a corruption by the Spanish of the Navajo term or word "Tse-yi", the Rock Canyon." Gregory.

Proclaimed a National Monument in 1933 and includes all lands in Del Muerto, De Chelly, and Monument Canyons.

CASA GRANDE (NATIONAL MONUMENT)

Spanish words for "large or great house." Also includes several groups of ruins. Located near the Gila River about two miles from Coolidge, Arizona. The Pima and Papago name for these ruins is "Vah-ah-Kei", the "Old House."

Proclaimed a National Monument in 1916.

CHIRICAHUA (NATIONAL MONUMENT)

Named after the Chiricahua Indians (Apaches) who once ranged over this region. The Chiricahua Apaches were an important division of the Apache, so called for their former home in mountains of that name in southeastern Arizona. The name Chiricahua means "a great mountain." Barnes. The Monument was reserved for its spectacular rock formations and scenic beauty. Is also known as the Wonderland of Rocks. Proclaimed a National Monument in 1924.

MONTEZUMA CASTLE (NATIONAL MONUMENT)

The name "Montezuma Castle" was given to this excellently preserved prehistoric ruin by early visitors, who erroneously supposed that it must have once been occupied by Aztec Indians, of whom Montezuma was a famous leader. Is an entire misnomer, inasmuch as Montezuma most certainly never knew anything about the place, and it is a dwelling house rather than a castle. Located on Dry Beaver Creek about four miles north of Camp Verde, Arizona. The name of "Montezuma" is familiar to Indians of this region and has been used in many instances.

Proclaimed a national Monument in 1906.

NAVAJO (NATIONAL MONUMENT)

Hodge says that "The word Navajo is possibly the corruption of Wichita Indians' name for themselves. The Navajos are an important Athapascan tribe. First to mention them by name was Zarati-Salmeron

DERIVATION OF MONUMENT NAMES (CONT.)

about 1629." Others believe the origin of the name may be the Tewa word for the tribe meaning "a place of large plantings," referring to the vast cornfields of the Navajo. This may again have come from the Spanish word "navajo", meaning "a large piece of level ground."

The spelling of the word is not well defined. Government proclamations spell it "Navajo", while some authorities write it "Navaho." The former is most common, however. The Monument is located on the Navajo Indian Reservation and is in three sections including Kiet Siet, Be ta ta kin and Inscription House Ruins. Betatakin is a Navajo word meaning "houses in the rock shelves", or "side hill house." Proclaimed a National Monument in 1909.

SUNSET CRATER (NATIONAL MONUMENT)

So called because of its coloring, from the red cinders which give the peak a glow like a sunset. A volcanic cone which rises about 800 feet from a bed of lava and cinders. Located east of the San Francisco Mountains and about 12 miles from Flagstaff. Proclaimed a National Monument in 1930.

TONTO (NATIONAL MONUMENT)

Named after the Tonto Apaches. Tonto is Spanish for "fool." Seems to be some argument as to whether the name was appropriate. Fine cliff dwellings in Tonto Basin near Roosevelt, Arizona. Proclaimed a National Monument in 1907.

TUMACACORI (NATIONAL MONUMENT)

A Mission whose founding dates back to the latter part of the 17th century. Sometimes called San Jose, according to Kino.

"Papago 'Chu-uma Kakul.' The Spaniards always turned the Papago 'ch' to 'T'. For example: Papago 'Chuk-shon.' The Spaniards made it 'Tucson.' Also 'Tubac' for 'Chuyac', etc. 'Chuuma' meaning a white stone; 'Kakuli' meaning bending over; broadly, 'Tumacacori', 'Caliche Bluffs.'" Father Oblasser. Proclaimed a National Monument in 1908.

WUPATKI (NATIONAL MONUMENT)

Name means "Long House" in Hopi. Named by J.D. Clark of Flagstaff. Located on the west side of the Little Colorado River and the area contains many other prehistoric Hopi ruins as well as the Wupatki Ruin.

MEXICAN CHURCH ARCHITECTURE

By J. Howard Tovrea

Mexico is a land of churches. Every town and village, no matter how small, is clustered around a magnificent church which would be a landmark in any of our large cities. To say that Mexico has thousands of churches is no exaggeration and the fact that most of them were built in the fifteenth and sixteenth centuries makes them of especial interest to the Historian and Architectural student. The architecture of some of these buildings ranks with the finest in the world and it was for the purpose of studying these churches that we made a trip through Mexico last month.

Our trip was confined to stop-overs at Mazatlan, Guadalajara, Mexico City, Cuernavaca, and Taxco. Mexico City and Guadalajara being respectively the two largest cities in the Republic, they also contain the most noteworthy churches both as to architecture and historical interest.

This report has been written to record my impressions of Mexico and its ecclesiastical architecture not as an authority on the subject but as an interested student. If this writing prompts anyone to visit Mexico, and helps them to see the best examples of church architecture, then it will have achieved its object.

Inasmuch as our time was limited, we tried to see as much as possible rather than to make detailed studies in a limited field. Therefore, this report will be general and not detailed. "We" means Polly and I.

Let us skip Mazatlan where the churches are insignificant as well as closed by order of the Governor. Guadalajara is 1773 kilometres south of the border town of Nogales, Arizona, and is 5,200 feet above sea level. Leaving Mazatlan which is on the western sea coast our train takes us through the wild, tropical Nayarit Mountains and on to the Barrancas.

Scenery offered by this picturesque region ranks with the finest in the world. We cross awesome gorges spanned by high steel bridges. In 16 miles we go through 16 tunnels, two of which are more than three miles long. We travel over 15 miles of road laid on ties made of precious ebony.

As we skirt lofty, rugged mountains we pass through quaint little Indian villages which were founded by the Conquistadores early in the 15th century and which are still practically the same as they were then. In the center of these villages rises a lofty church---the ornate splendor of which is accentuated by the simplicity of the native buildings.

Strangely, the crude Indian huts are romantically attractive with

MEXICAN CHURCH ARCHITECTURE (CONT.)

their broken roof lines and their uniform architectural motif. They are built of stone and adobe and every roof is covered with red tile even down to the lowly barns and outhouses. These natives set out to build a house with no plans and no idea of the ultimate result of their labors yet the result is really beautiful in its wild setting of tropical vegetation.

Architects sweat blood over plans and specifications, dream of murdering contractors, swear at clients, and the result of their labor is almost as good as the real thing. The natives achieve the broken roof lines of their buildings by not knowing how they are going to build the roof when they get there. As a result, they have to make all sorts of tricky projections and what-nots in order to get the building covered up. I suppose education would ruin them. Their success can probably be attributed to plain ignorance.

We would like to stop at these little villages and study their ancient churches, but it would mean a camping trip as there are no hotels and the water is questionable.

We arrive in Guadalajara that evening rather pop-eyed from trying to see so much in one day. We have a hard time convincing the hotel clerk that we are not rich Americans and do not want the Presidential Suite at 27 Pesos per day. He reluctantly offers us an ordinary room and bath at seven Pesos which we take. In Mexico anyone carrying a suitcase and wearing a necktie must be rich. Good natured bartering is an accepted practice and the traveler soon learns that unless he is rich he had best do a little bargaining.

We arise early the next morning to visit Guadalajara's forty odd churches. We hail an arana, which is a horse-drawn cab.

"Do you know where all of the churches in Guadalajara are?", I ask.

"Yes, Sir."

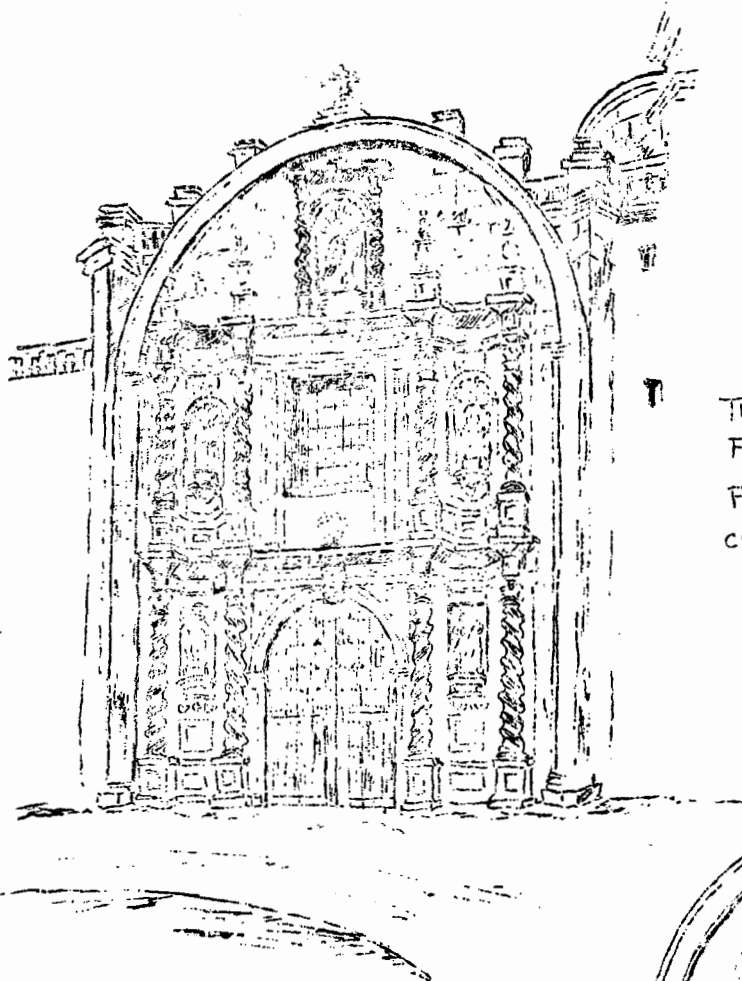
"How much do you charge by the hour?"

"Two Pesos," is the prompt reply.

I look pained and say, "Two Pesos is too much---I will give you one Peso."

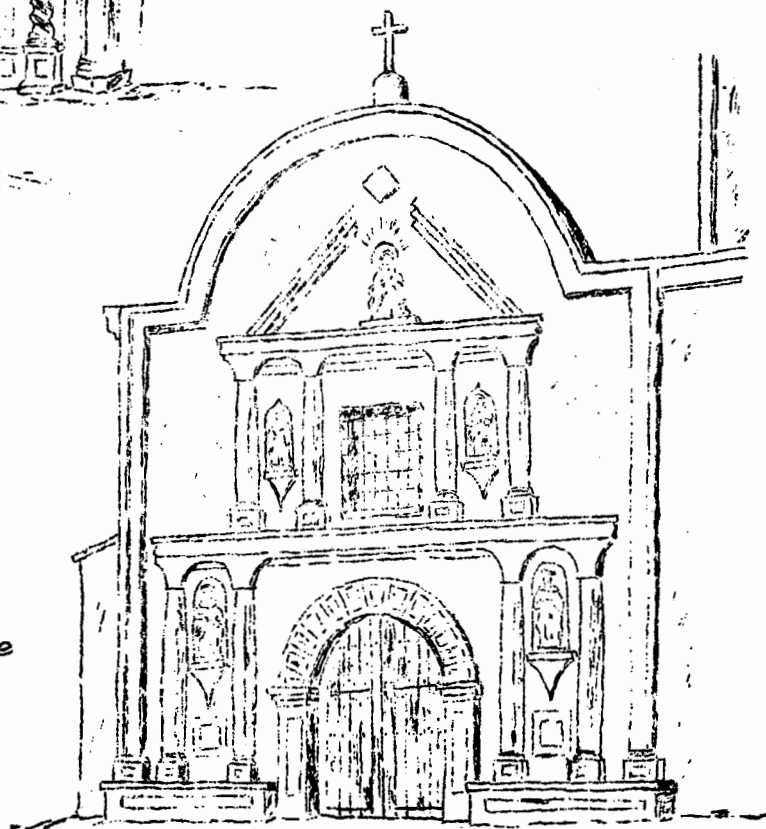
He in turn looks pained and sadly reflects on the matter. "Bueno---one Peso."

First we go to the old convent Church of Santa Monica, the facade of which is one of the architectural sights of Guadalajara. The main entrance is highly ornamented in elaborate Plateresque and the intricately carved



The Church of San Francisco, Guadalajara, Mex.
Fine example of early Spanish craftsmanship. Baroque.

Mission San Jose de Tumacacori, Arizona, U. S. A.
As it might have looked when it was built, 1800-1822, The facade is now in a ruinous condition. Note resemblance in composition of the two churches.



J.H. Tourea

MEXICAN CHURCH ARCHITECTURE (CONT.)

designs on the columns are truly amazing. At one corner of the building in a niche is a large weather-beaten stone statue of San Cristobal, a work of the 17th century, which is indicated by the double-headed eagle appearing in two places. The interior is uninteresting, but a study of the facade is certainly worth the visit.

The Church of San Francisco, of which I have made a sketch, is one of the quaint old landmarks and was of particular interest to me because of a resemblance in composition to our Mission San Jose de Tumacacori. Though the facade is Baroque and the column arrangement is a bit different, it has the same openings, statue niches, arched parapet, and single bell tower as does Tumacacori. Perhaps the resemblance was more emphasized in my mind because I was looking for churches which might resemble Tumacacori and found no other. The age of San Francisco is beginning to show itself by its need of repair.

The Santuario de Nuestra Senora de Guadalupe was one of the most interesting of all the churches we visited in that it was not only a beautiful structure, but was also a distinctive type of architecture in itself.

The first impression is the heavy mass effect of the building which is of cut sandstone masonry discolored by age to soft blending yellows, grays and browns. On each side of the main facade are two Carmelite belfries, each containing three arched openings and three bells. The portal itself is flanked by two unusual buttresses each composed of three semi-columns which blend into each other and add greatly to the massiveness of the facade. The tops of these buttresses are cut off sharply as they near the top of the wall and are surmounted by a heavy overhanging cornice.

A courtyard paved with flagstone surrounds the church. Cut stone ornaments relieve the stark simplicity of its walls.

The cruciform interior is highly decorative and we are rather stunned to see a maze of intricate design over every square inch of wall surface. To the right of the entrance is a small domed chapel bathed in purple light which enters through a leaded glass window above. The effect is inspiring.

The astounding contrast between the simple exterior and the amazing ornateness of the interior leaves us rather breathless. Polly says over-decorated. I say splendid in the effect that it was probably designed to create. Disregarding this difference of opinion we both agree that it is a church we will never forget. The main structure dates from about 1550.

A Santuario differs from a Parochial church in that it enshrines some alleged miracle-working object and as such it is held in higher esteem. It is also a bit more splendid in ornament than the ordinary

MEXICAN CHURCH ARCHITECTURE (CONT.)

Parroquia.

Let's skip about 25 other churches as our space is limited and the buildings would almost have to be seen to note their slight differences.

As the sun is setting we arrive at the huge Cathedral which flanks the Plaza Mayor as do most of the cathedrals of Mexico. It was begun in 1571 and consecrated in 1618. Twice severe earthquakes destroyed the facade and threw down the towers. The various reconstructions produced sad results, for what was meant to be a Gothic pile by the original builders is now an unique though somewhat confusing blend of many orders.

It might be well to note here that the Mexicans have a mild mania for pouncing on a perfectly sound building, tearing out the existing architectural ornaments, and substituting new ones. Some beautiful Churrigueresque work has been lost forever in this manner.

Coming back to the Cathedral, we find that two pyramidal towers flank the building and rise 200 feet above the street level. We enter the immense nave which is divided from the wide aisles by ten massive columns.

There is a notable absence of the Churrigueresque and Baroque which characterizes interiors of most Mexican churches. The Doric column capitals support graceful pointed arches which in turn carry the triple-vaulted ceiling.

Now we enter a hall to the right of the main altar. Our object is to view the most precious possession of the Cathedral, Bartolome Esteban Murillo's masterpiece "Assumption of the Virgin." It is futile to attempt to describe this great painting. One must want to look and look and wonder at the tender, wistful expression of the Virgin's face. Truly God must have guided Murillo's hand. This picture, a gift of the King of Spain, is unquestionably authentic. Fabulous sums have been offered for it, among which was \$40,000 by Napoleon III of France after he found out that it could not be stolen. Many attempts have been made since to steal this ever-guarded treasure.

We ascend the tower. The circular stone stairway winds up as we feel our way in pitch darkness along the damp walls. Breathless we reach the top. The view is magnificent. We see the huge bell, La Campanita del Correo, which called the Indians to mass from the most distant hills 20 miles away, but it is now silent, as are all the church bells of Guadalajara by order of the Governor.

We are tired---it has been a big day. We return to the hotel and retire early.

The next day we motor to the Indian village of Zapopan to see the old

MEXICAN CHURCH ARCHITECTURE (CONT.)

church which is a well preserved example of 17th century work. The facade is the best example of the Plateresque which we will see in Mexico. The Muñejar dome is covered with polychromatic tiles. The cruciform interior is notable for its fine marble altar in the apse.

This evening we leave Guadalajara for Mexico City which is the oldest city in North America. It is truly a beautiful city with wide paved streets and lovely parks and gardens. It is situated in a valley surrounded with lofty cloud-covered mountains. To the southeast and rising majestically above these clouds and mountains are the volcanos Popocatepetl and Iztaccihuatl, the former semi-active and rising 17,782 feet above sea level.

The city is an education to the student of architecture and history, but it is not within the scope of this report to cover even part of the fine old buildings nor to dwell on their intriguing historical backgrounds.

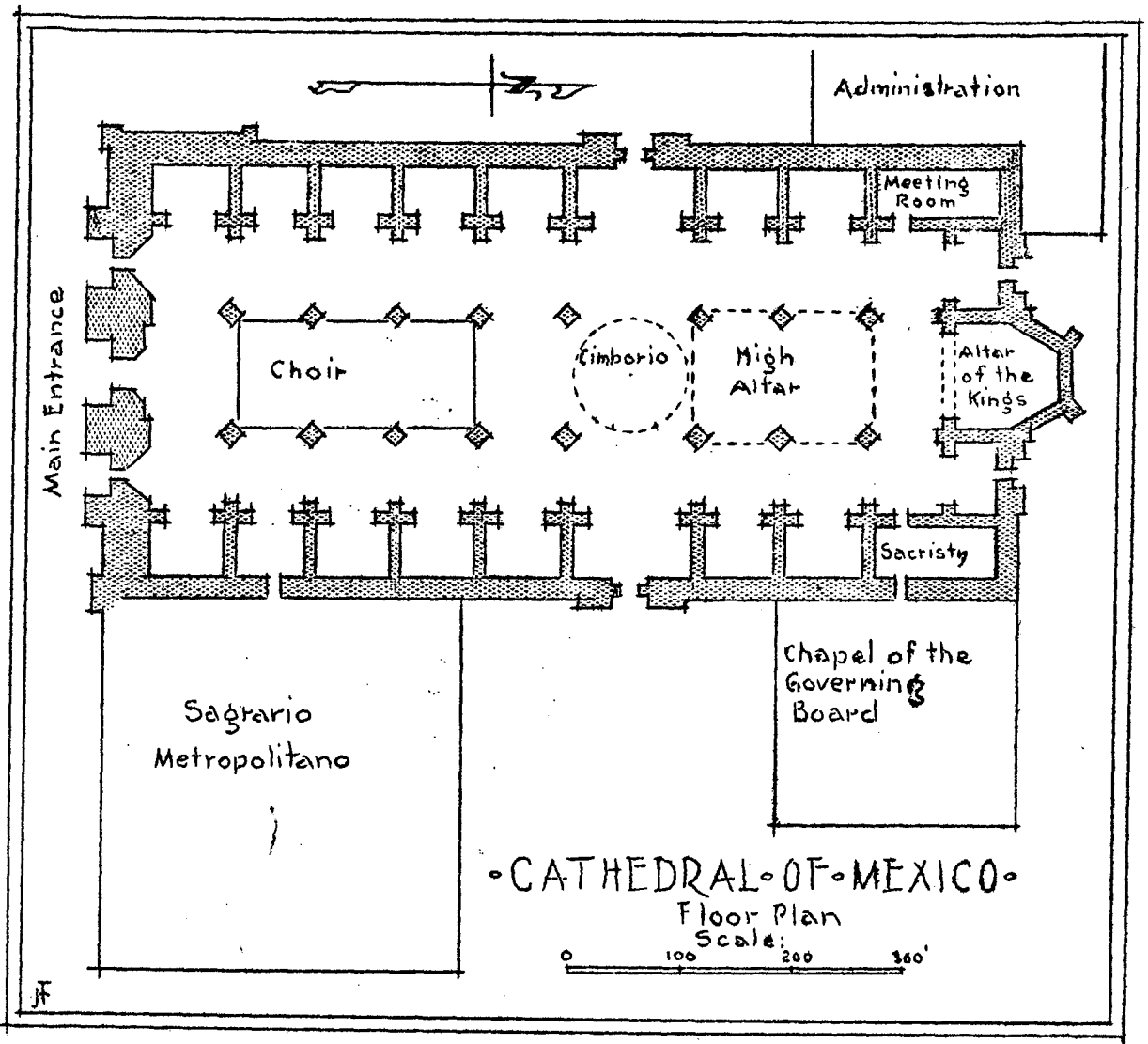
Let us hasten to the Cathedral which is said to be the largest structure of its kind on the continent. Historians say that foundations of this massive structure are composed almost entirely of sculptured Indian images which once formed the body of the great Aztec Teocalli that stood near. "The zealous but oftentimes bigoted friars who ruthlessly destroyed the Indian manuscripts and idols, professing to believe them works of the Devil, lost no time in replacing them with their own divinities in wood or plaster, and these, with singular inconsistency, they worshipped with even greater fanaticism."

The Cathedral was started in 1573 and completed in 1667. The towers were not completed until 1791. Baxter writes that the facade with its heavy buttresses and odd bell-shaped tower domes is a characteristic example of the Spanish Renaissance. The towers rise 203 feet above the level of the atrium which is six steps above the street level. High in the East Tower a family of bell-ringers have a true penthouse apartment.

Referring to the floor plan, let us examine the interior.

Our first impression is that the view of the spacious nave is badly broken up by the obtrusive though beautiful Choir. Seven small chapels open on to each of the two side aisles and the central arches form a Latin Cross.

The central or high altar is a massive though rather tasteless affair. The old one which was replaced was said to be a beautiful work in the Churrigueresque. Directly north of the high altar in the apse is the Altar of the Kings, so called, because it is a replica of a chapel in the Seville Cathedral where some of the Spanish Kings are buried. This is certainly the most beautiful altar we have seen in Mexico. It is done in the Churrigueresque style and fairly makes us dizzy so resplendent is its design.



The Sacristy to the northeast is notable for its rib vaulted ceiling and its large canvas paintings which give the effect of murals. If we continue through the east doorway to the Chapel of the Governing Board, we may see the small though priceless painting, "The Virgin of Bethlehem," by Murillo. It is interesting to know that this small bit of canvas could easily bring \$20,000 if put on the open market. The painting is always hidden during revolutionary times in some secret recess in the thick walls.

The first chapel south of the Sacristy is one of the finest in the Church. It also contains one of the oldest and most valued objects in the Cathedral—a life-sized figure of Christ presented to the old church soon after the conquest by Emperor Charles V of Spain.

The interior of the building is 387 feet long by 177 feet wide. The highest interior point at the Cimborio is 179 feet.

MEXICAN CHURCH ARCHITECTURE (CONT.)

Joining the front of the Cathedral to the east is an extremely interesting chapel, the Sagrario Metropolitano, which was added on to the Cathedral in the middle of the 18th century. It is one of the finest examples of Churrigueresque church exteriors in existence. The Churrigueresque is well described by Sylvester Baxter in his "Spanish Colonial Architecture in Mexico" as being "pillars and pilasters replete with decoration, all panels are decorated, lines are infinitesimally broken, and the sculpture becomes an integral part of the structure, serving as decorative members." Altar retables worked in wood sometimes offer fine examples of this intricate architectural style. The background of the main altar at San Xavier is a mild attempt at the Churrigueresque.

I must mention the National Museum of Mexico which is close to the Cathedral and part of the Palacio Nacional. We spent the greater part of one morning examining the exhibits in this building and even then wished we could devote more time to it. It perhaps possesses more genuine antiques and relics of primitive America than any other Museum in the world. It also contains an art gallery.

We were particularly interested in the Archeological section and the section devoted to Mexican history. In the Historical section we viewed armor and implements used by the Conquistadores, relics of the reign of Emperor Maximilian and Empress Carlotta who did so much to beautify Mexico.

The tragic execution of this unfortunate prince of the House of Hapsburg recalls his last words as he stood proudly in front of an adobe wall at Queretaro facing a squad of soldiers. It was the dawn of June 19, 1867. "I die in a just cause, the independence and liberty of Mexico. I forgive all and pray that all may forgive me. May my blood flow for the good of my adopted country. Viva Mexico." So died a brave man.

Let us now journey northeast over the now dry lake bed of the Lago de Texcoco to the ancient church and convent of San Agustin de Acolman. This is one of the fast disappearing structures erected by the Spaniards soon after the conquest. It was begun by the Agustin Friars in 1539 and finished in 1560.

It is a massive building resembling a fortress. The facade is Plateresque which is strangely contrasting to the medieval battlements of the parapet walls. The nave is rectangular with the original high altar still in place. The convent joins the church proper to the south and is in a ruinous condition.

This church and convent have been made a national monument by the Mexican government which is doing a most excellent job of stabilization and partial restoration not only on this building but on many others. Mexico knows the value of her ancient and historical monuments and is preserving them for posterity. When you go to Mexico do not miss Acolman.

MEXICAN CHURCH ARCHITECTURE (CONT.)

We leave Mexico City at six a.m. bound for Cuernavaca and Taxco. We are soon climbing out of the valley of the Anahuac which spreads out before us in a beautiful panorama. The sea of floating clouds is pierced by the early morning sun and rising high above all else is the mighty snow-capped Popocatepetl and Iztaccihuatl. We are 10,000 feet high and a half mile above the floor of the valley.

Cuernavaca was assaulted and captured by Cortez and his men in April, 1521, and Charles V included the city in the 30 which he gave to the Conqueror. Cortez later returned to Cuernavaca where "he erected a stately palace (still standing and used as the City Hall) and henceforth made the city his favorite residence."

We visit the palace of Cortez where we view a very interesting mural by Diego Rivera depicting the history of the Conquest. We then go to the Cathedral which is one of the oldest and quaintest structures in the Republic. It was founded June 2, 1529, and was for a time the most important Franciscan temple in the New World.

"It is a typical example of the austere Early Franciscan Style with its modicum of adornment and battlements." It is one of the few remaining churches where Cortez worshipped in person.

A very interesting massive flying buttress springs out from the side of the building facing the atrium which adds to the support of the dome over the cimborio. The main entrance of the Cathedral is at the side of the building and not the front. We found quite a number of churches with this type of entrance.

Inside we find confessionals which bear the marks of centuries and other sturdy reminders of the great days which followed the Conquest. One can almost see "singular gatherings of mailed warriors, cowed monks, shaven-pated friars, and haughty Spanish Dons." It is interesting to reflect that history was made here 25 years before Shakespeare was born and a hundred years before the Pilgrims sighted Plymouth Rock.

It might be well to note that though this great Cathedral was erected with free Indian labor, within a few decades it took three and a half centuries to finish the apex of the bell tower. The money which was probably wrung from the simple Indians to complete this tower would have no doubt built the Cathedral over ten times. This type of ecclesiastical graft probably accounts for the unfinished towers of our missions Tuma-cacori and San Xavier. This theory of the reason for the unfinished towers is not original with me but I state this instance to support it.

We visit the beautiful Borda Gardens. The Frenchman La Borda spent some three million Pesos here and indeed left an enchanting spot. At this time our guide began to show signs of being dumb, which is something he probably had a hard time concealing for any length of time. This trip was

MEXICAN CHURCH ARCHITECTURE (CONT.)

one of those arranged tours which one is always warned against but which is invariably taken at some time or other. Rather than miss something worth seeing, Polly organized our party into one of exploration and we investigated every corner of the wonderful garden, in the meantime showing the guide beautiful spots which he did not know existed. For the rest of the trip we relied on our guide book.

We hasten on to the little town of Taxco. On the way our illustrious guide points to a field of grain and proudly advises us that we are now seeing a field of sugar cane. This statement is the last straw---Polly gets the giggles---I get worried for fear the guide will make another statement which will send us all into convulsions.

A winding road takes us up the side of the rugged Guerrero Mountains where long before Columbus was born Taxco was a flourishing mining town. So quaint are the picturesque, tile covered houses of the Taxquenos lining the narrow winding cobble-stoned streets that the Mexican Government is preserving the entire town as a national Monument and whosoever builds a new house must plan it to conform with the existing style.

La Borda made his immense fortune here in the Taxco mines and as a gesture of gratitude built the famous Taxco Church which is said to have cost between five and eight million Pesos. Work was started on the structure in 1758. It is not a very large church but is known as "the most complete monument to ecclesiastical art that exists in the Western Hemisphere."

If we want to be real critical we should say that a rather unpleasant effect is produced in the facade by the fact that the walls of the two towers are cut in half by a heavy projecting cornice. This gives the effect that the lower portion of the towers are narrower than the upper and makes the facade look top heavy, although it adds to the apparent height of the towers, which was probably the hoped-for effect.

There is not the mass effect that characterizes Spanish Colonial architecture. Elaborate cut stone ornament of the facade is Rococo while the retablos of the interior are Churrigueresque. The twin towers are handsomely ornamented with statues and carved designs.

The interior can best be described as giving a rich but tasteful appearance. The pilasters lining the nave are of a lovely dull pink cast stone. Imagine our horror on finding that they had started to work painting on this beautiful cast stone a hideous representation of marble, which will make the now simple interior look like a cheap theater set. Fortunately, we arrived in time to see the real beauty of the building.

As we leave the church, Polly suddenly decides we should all climb to the top of the bell tower, much to the guide's consternation. He says it cannot be done as the door is locked, whereupon we find us a small boy who

MEXICAN CHURCH ARCHITECTURE (CONT.)

in turn miraculously finds a key and up we go, leaving our disgruntled guide pouting below.

The view of the village is entrancing and we linger at the top just looking. We tip our small boy and descend the circular stone stairway. At the bottom we find the door blocked by an austere looking native who solemnly asks for a propena or tip.

What for?, I ask. We receive a haughty look---why he is the one who gave the key to the small boy to open the door! Goodness, anyone should know that! I hasten to rectify our error by giving him 30 centavos. He looks rather disdainfully at the meager sum, shrugs his shoulders, and majestically opens the door. We hasten out for fear someone else will find us who has had something to do with the now famous key.

We hate to leave Taxco---we would like to stay here a week or even a year, but even though we carry a suitcase and wear a necktie we are not ricos americanos and tomorrow night we must leave for home.

Our last day in the city we spend in Chapultepec Park. As we wander through this gorgeous woodland so did Montezuma and Cortez four hundred years ago. The huge park is restful with its lakes, trees, and flower-lined paths. A fitting place to spend our last day in Mexico.

FARIS PUTS AZTEC ON MAP

The above headline appeared in the Aztec Independent Review of July 19 over the article which is reprinted below. We think it is a darn nice orchid for Johnwill:

"Johnwill Faris, Custodian of Aztec Ruins National Monument, announces this week that funds for the paving of the park at the entrance to the Ruins will soon be available and the new project will soon be under way.

"Mr. Faris has been Custodian of the Aztec Ruins for the past six years and under his administration the work started several years ago by the Hon. Earl Morris has been carried on in the most successful manner.

"In addition to taking a personal interest in making the National Monument more attractive to visitors, Mr. Faris has been a constant booster not only for the Aztec Ruins but other Monuments and Parks throughout the Southwest and the result of his never tiring efforts is that the number of visitors to the Ruins is increasing each year. And that ain't all---we have never heard a word of complaint by a tourist of the treatment received while at the Aztec Ruins.

CORRESPONDENCE AND FILES

MR. BRILL'S VISIT

Mr. Charles R. Brill, Chief, Division of Mails and Files, of the Washington office, spent July 3, 4, and 5 in the Southwestern Monuments for the purpose of harmonizing our methods of handling mail, correspondence, and files with the practice of the larger offices. It is suspected that most custodians regard office work as a confounded nuisance. Since, however, all of us do write letters, a brief statement of the ground covered by Mr. Brill will have direct interest to field officers.

Mail Count

In the Washington office all incoming and outgoing mail is counted daily. Incoming and outgoing telegrams are also counted. The purpose of this count, Mr. Brill explains, is to furnish a yard stick by which the amount of office work can be measured. A letter, with its inclosure, is one piece of mail. Several separate letters inclosed in the same envelope are counted as so many several pieces of mail. A report in its entirety is counted as one piece. For example, when copies of half a dozen allotment ledger sheets are mailed to a custodian at the end of the month, the lot is counted as one piece of outgoing mail. It is admitted that there are inequalities in this count. Our combined final estimates, representing weeks of work, go out as one piece. This injustice is offset by the fact that a copy of mimeographed instructions requiring only inclosure may also be counted as one piece.

A count covering mail handled at the Southwestern Monuments Headquarters was started July 5. In the 20 working days to the date of this writing, 3,121 pieces of mail have been handled at headquarters - an average of 156 pieces daily.

One Subject

There is a saying around offices that paper never forgets. Which is true. But if you can't find the paper when you want it, you are still in a bad fix. The files are the memory of every office of any size. Even in an office which handles 150 pieces of mail a day, correspondents must get out the files - the "previous correspondence" - in order to give every matter which comes up properly intelligent consideration. Thus, we must have an efficient filing system. Efficient administration is impossible without it. The Park Service has a standardized decimal filing system under which papers are filed subjectively. If a letter treats of more than one subject and is - as it must be - filed under only one subject, it is lost so far as the other subjects are concerned. There are methods of cross reference which are devised to bring such a

letter to the attention of any person interested in the other subjects considered in it, but cross referencing seriously slows down the filing process and is unsatisfactory at best. There is, moreover, constant danger that the need for cross references will be overlooked by the filing clerk. Thus the following rule followed in the Washington office and previously laid down by this office is fundamentally important:

Don't treat more than one subject in a letter.

If, for example, you need to write us about the consolidated gasoline contract and about repair work on a trail, write two letters - one about each subject. In writing about any kind of numbered papers, vouchers, purchase orders, bills of lading, etc., write a separate letter for each such paper. Don't write about more than one purchase order in the same letter, for example, because all the papers having to do with a given purchase order are attached to it clear on down to the audited voucher.

Address the Superintendent or The Director

Various persons prepare and sign mail for the Director, but it is a strict rule of official correspondence that replies to such letters shall be addressed simply to "The Director, National Park Service" regardless of the fact that Mr. Demaray, or Mr. Tolson, or Doctor Bryant, or some one else, wrote the letter to which you are replying. If you wish to insure that Mr. Tolson, for example, will see your letter, you can write in "For the attention of Mr. Tolson." Usually, however, we accomplish the same result by incorporating his name in the first sentence, as, for example, "Reference is made to Mr. Tolson's letter of May 25," or "Mr. Tolson's letter of May 25 requested information, etc.;" The same condition obtains in the headquarters office at Coolidge and the same rule should be applied. Even though Mr. Rose, or Mr. King, or Mr. Diehl should have signed the letter to which you are replying, you should address the superintendent, who will refer it to the proper person.

If there were no such rule, a large body of correspondence could develop which the superintendent might never so, though it treated matters with which he ought to be familiar.

Suspense

Suspense is as important in a filing system as it is in a movie. A "suspense" system in filing is simply a method of making sure that no correspondence, report, or other matter requiring attention will be neglected. When we write you for certain information, we put a "suspense" on the copy of the letter. If you fail to answer, the "suspense" ticket comes up in a couple of weeks to remind us to get after you. Custodians would do well to maintain some sort of suspense system of their own. One of the "Every Day" letter files does the work very well. If you write a letter asking for certain information to which you should have a reply by the 25th of the month, put a brief memo in the folder for the 25th.

File the correspondence where you would ordinarily file it. Then, if each day you have a look at the suspense folder for that day, you will come to this memo on the 25th. This will remind you to pull the file and if you haven't received a reply in the mean time you can follow it up. This method is convenient also for keeping track of the periodical reports - any matter, in fact, which should receive attention on a specific date. Most of you already have "Every Day" file folders.

While Mr. Brill touched upon many other points, those discussed above are most pertinent from the standpoint of field personnel. If it is true that an army travels on its belly, it is equally true that an office travels on its papers. You can help us greatly by confining your letters to one subject, addressing the superintendent, and maintaining some sort of "suspense" or tickler system to keep you from forgetting things to which your attention should be given.

H.M.M.

P. S.

Bob Rose rises impertinently to state that he thinks the popular impression in the field is that an office travels on the seat of its pants.

RUMINATIONS

Chief, If we knew all there was to the making of Monthly Reports, we could probably turn the job over to the office boy who could fill our place around here and then we could go on trying out some of the other experiments we always have on the pan. But this report business is interesting and the more we play with it the more interesting it becomes. We hold many Taurian sessions over it and it turns up constantly in the days work. "We ought to get that in the Monthly Report" is a common expression around the Office.

You have probably noted the change in the format in the last two or three issues and this month we are changing the cover papers to a bit better quality, as we find from the copies the boys send in to us for binding at the close of a six month's period that the cover paper we have been using doesn't stand up to the kind of handling their copies receive.

I don't know if you have noticed a change in the Supplement material or not, but we intended to change it a little and have gone about as far in that direction as we intend to, at least for the present. We are taking some of our gentle spoofing out of the Supplement and running it in the Broadcast, which is so named principally because that is what it isn't; a much more personal circular which we get out about every so often for our own information and pleasure and whose mailing list is confined to the Southwestern Monuments.

This Broadcast is arousing a lot of interest and promises well to

RUMINATIONS (CONT.)

help bridge the miles between the members of our organization. The hope is that eventually we can work up some discussions of our problems and get the personnel to doing about 85% of the writing so that here in the office about all we will have to do will be to stick it together and circulate it.

I mention all this just to show you that we are not asleep down here and if you have noted any change in the Supplement the above explanation will tell you it is not an accident. The danger I foresee is that the Supplement may be taken too seriously. For instance, we had another library over in New Jersey write in the other day and ask to be put on the mailing list, which is a thing to be looked into. Our ideal for the Report and Supplement is to make it a cross section of the life and problems of our work here in the Southwest; it is a lot of shop talk by some specialists who like their work but are not too awfully serious about it. I've heard that we have been provided by the Great Architect with a hundred and sixteen muscles with which to laugh. Since we spend so much time on our jobs down here it looks like he must have intended for us to use those muscles during working hours, too; at least we are testing out the theory a little, being, as we say on the Supplement Cover Sheet, "serious, but not too serious."

Cordially,

The Boss -