

SOUTHWESTERN MONUMENTS MONTHLY REPORT

DECEMBER, 1935



DEPARTMENT OF THE INTERIOR
NATIONAL PARK
SERVICE

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SOUTHWESTERN MONUMENTS 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 L. Cole, ECW Clerk. Luis Castellum, Temporary Clerk-Stenographer.

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. C. E. London, Carl Schmidt, and H. Lloyd Beed, Rodmen.

FIELD STATIONS:

1. Arches---Moab, Utah. J. M. Turnbow, Custodian.
2. Aztec Ruins---Aztec, New Mexico. Johnwill Faris, Custodian.
Robert W. Hart, Ranger-Archeologist.
3. Bandelier---Box 669, Santa Fe, New Mexico. Earl Jackson, Custodian.
4. Canyon de Chelly---Chin Lee, Arizona. Robert R. Budlong, Custodian.
5. Capulin Mountain---Capulin, New Mexico. Homer J. Farr, Custodian.
6. Casa Grande Ruins---Coolidge, Arizona. W. J. Winter, Custodian.
Charlie R. Steen, Park Ranger.
7. Chaco Canyon---Crownpoint, New Mexico. Thomas C. Miller, Custodian.
8. Chiricahua---Willcox, Arizona.
9. El Morro---Ramah, New Mexico. E. Z. Vogt, Custodian.
10. Gila Cliff Dwellings---Cliff, New Mexico. No Custodian.
11. Gran Quivira---Gran Quivira, New Mexico. W. H. Smith, Custodian.
12. Hovenweep---Cortez, Colorado. No Custodian.
13. Montezuma Castle---Camp Verde, Arizona. Martin L. Jackson, Custodian.
Frank Fish, Park Ranger.
14. Natural Bridges---Blanding, Utah. Zeke Johnson, Custodian.
15. Navajo---Kayenta, Arizona. John Wetherill, Custodian.
Milton Wetherill, Trail Foreman.
16. Pipe Spring---Mocasin, 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. Woodrow Spires, In Charge.
21. Tumacacori---Box 2225, Tucson, Arizona. George Boundey, Custodian.
Martin Evenstad, Park Ranger.
22. Walnut Canyon---Flagstaff, Arizona. Paul Beaubien, In Charge.
23. White Sands---Alamogordo, New Mexico. Tom Charles, Custodian.
Barry Mohun, Utility Man.
24. Wupatki---Flagstaff, Arizona. J. W. Brewer, in Charge.
25. Yucca House---Cortez, Colorado. No Custodian.

CONDENSED REPORT

Coolidge, Arizona
January 1, 1936

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

Dear Mr. Director:

The Condensed Report for Southwestern Monuments for December 1935:

<u>TRAVEL</u>	<u>December, 1935</u>	<u>December, 1934</u>	<u>December, 1933</u>
Aztec Ruins	391	336	88
Bandelier	130	214	110
Capulin Mountain	500	400	---
Casa Grande	2,135	2,463	2,343
Chaco Canyon	330	---	208
Canyon de Chelly	23	3	---
Chiricahua	120	---	---
El Morro	0	---	---
Gran Quivira	200	128	295
Montezuma Castle	568	775	1,045
Natural Bridges	---	---	---
Navajo	---	---	---
Pipe Spring	214	274	578
Sunset Crater	55	53	---
Tonto	362	266	---
Tumacacori	1,311	758	1,134
Walnut Canyon	283	122	---
White Sands	1,840	---	---
Wupatki	63	42	21
Yucca House	---	---	---
Actual Reported			
Registration	8,525	5,874	5,822

The 13 Monuments which reported both in 1934 and 1935 showed an increase from 5,874 to 6,235---361 visitors, or 6.1%.

The nine Monuments which reported both in 1933 and 1935 showed a decrease from 5,822 to 5,342---480 visitors or 8.2%.

It would appear that December, 1935, as a travel month was 6.1% better than the same month in 1934; 8.2% poorer than the same month in 1933. Actually, 1935 is probably a much better travel year than either 1934 or 1933. More accurate system of checking visitors at Montezuma has tempered former estimates. Casa Grande is now reporting from the 25th of the month, as other Monuments, and thus lost some holiday visitors.

CONDENSED REPORT (CONT.)

Weather

Moisture in the form of rains and snows has been more than ordinarily plentiful in the Southwest during the month of December. The northern part of the region especially has benefited by the condition, with snows at Capulin and Bandelier and rain at Gran Quivira and Chaco Canyon. The Gila Valley and its tributaries have experienced dry but pleasant weather. Tumacacori, nearer to Mexican highlands, received several rains which reduced travel.

In general, conditions look promising for ranges and crops, yet precipitation has not been great enough to reduce travel materially.

Engineering Activities

Associate Engineer Diehl divided his time between Carlsbad National Park, Saguaro, Tumacacori, and White Sands National Monuments, and the Branch of Engineering in San Francisco. Proposed road work at Saguaro and White Sands was reviewed, and repair work at Tumacacori was outlined.

Associate Engineer Hamilton made inspection trips to Chaco Canyon in reference to the fencing project there, El Morro to check the recently constructed steps, and personally aided in construction of the reservoir walls at Canyon de Chelly.

Chief Engineering Aide Tovrea spent two weeks at Saguaro on road location work. The remainder of the month was spent at Headquarters on plan and profile of road and routine office work.

The field crew worked at Carlsbad National Park and their activities will be reported from that station.

E. C. W. Activities

BANDELIER

1. Final finish items and cleanup completed on utility area.
2. Small crew worked all month on carved informational signs.
3. Four crews worked on transplanting and landscaping around utility area, campground, and area adjacent to CCC baseball ground.
4. Two crews completed grading and trimming half of road slopes and barrow pits in Detached Section.
5. Considerable road maintenance, opening ditches, resurfacing.
6. Rock quarry worked all month.
7. Construction of drainage culvert started on the 27th.
8. Barracks being moved preparatory to construction of museum building.

CHIRICAHUA

1. Additional 1,200 feet constructed on Sara Deming and Echo trails.
2. Rock work 90% complete on Ranger Station and Bath House.

CONDENSED REPORT (CONT.)

Materials on the ground for these projects.

3. 200 square yards of backsloping completed on Bonita Highway.
4. Maintenance continued on Bonita Highway.

One week of work lost due to Christmas vacation.

PIPE SPRING

1. Boundary fence improvement approximately 65% completed.
2. Guard rail stones marked for use.
3. Ditch diversion about 30% completed.
4. Walks laid out by engineers; rock 50% hauled.
5. Camp ground development about 90% completed. 153 trees and shrubs planted.

Field Trips

Superintendent Pinkley and Engineer Diehl left Headquarters December 18, visited White Sands National Monument on official business pertaining to contemplated relief work there under the Resettlement Program. They returned to Headquarters December 20.

On December 16 and 17 Acting Assistant Superintendent Miller and Park Naturalist Rose attended an E.C.W. conference of educational advisors and representatives of technical agencies held in Albuquerque, New Mexico. The conference resulted in approval of a plan of vocational training which is to be a part of the E.C.W. program.

On the same trip, the two men mentioned visited Gran Quivira and Aztec Ruins National Monuments on official business. Miller also made a trip to Bandelier National Monument on E.C.W. matters.

Junior Naturalist Louis Gaywood left Headquarters December 21 for Chaco Canyon National Monument where he assumed charge during Custodian Miller's annual leave period.

Personnel

Trail Foreman Paul Beaubien left Walnut Canyon National Monument December 28 and arrived at Headquarters December 29. His assumption of duties as Temporary Ranger at Saguaro National Monument for the winter season will be reported next month, as the appointment becomes effective January 1.

No other personnel changes occurred during the month.

Visiting Officials

Resident Landscape Architect Charles Richey visited Headquarters during the month on landscape business with particular reference to the proposed museum building at Bandelier.

CONDENSED REPORT (CONT.)

Resident Landscape Architect A. C. Kuehl made a visit pertaining to problems at Sunset Crater, Pipe Spring, and other northern monuments.

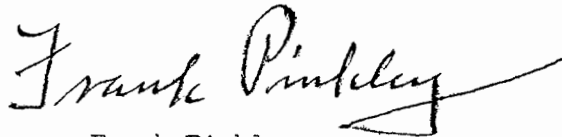
Regional Wildlife Technician A. E. Borell spent several days at Headquarters on wildlife conditions at several monuments. Report of his activities will be made during the next month. Mr. Borell did considerable work at Chiricahua and Saguaro National Monuments during the month.

Headquarters was pleased to receive visits from Custodians Jackson of Bandelier and Miller of Chaco, Trail Foremen Brewer of Wupatki, Beaubien of Walnut Canyon, and Spires of Tonto. Conferences thereby made possible resulted in several conclusions which will be of benefit, it is believed.

Mail Count

Incoming, official	1,072
Incoming, personal	1,173
Outgoing, official only	1,661
Telegrams, incoming	38
Telegrams, outgoing	<u>44</u>
Total number of pieces handled	3,988

Cordially,



Frank Pinkley
Superintendent

REPORTS FROM MEN IN THE FIELD

CASA GRANDE

By W. J. Winter, Custodian

In general this has been a rather uninteresting month, being short of most of the interesting items we usually collect for our monthly report. This, of course, would have to be the case just when the number of pages assigned to us in this report has been raised 100%!

The visitor count was 2135, thirty less than last month. Today, Christmas Day, being a holiday for the Great American Public, they are pouring in by the hundred. For the month, however, our usual brilliant list of distinguished visitors is missing, as to our knowledge no one worthy of very special notice showed up. Of course, this does not include Park Service visitors. Several of those came in, but they for the most part were calling at Headquarters, not the Monument. Cal Miller of Chaco came in for a day and a night, and we were glad to meet him. Without being put under pressure Cal modestly admitted that he had the best monument in the Southwest -- or maybe it was the world, I forget which. Charlie and I noticed in a recent Monthly Report that three different Custodians each proclaimed that he had the "best" monument. We couldn't quite understand such rash claims and decided that the gentlemen involved had never seen Casa Grande.

Sunday, December 22, the ruins and museum were visited by 65 CCC boys from the camp near Eloy, Arizona, accompanied by their medical officer, Lieutenant Lerner. The Lieutenant was well pleased with our Monument and said that he intended to bring similar groups every Sunday until his whole camp of 220 men had seen the place. So, it looks as though the Ranger will have to stop sleeping on Sundays for a while. (Now, listen to Steen cuss -- he guided a couple of hundred visitors that Sunday, exclusive of the CCC group!).

Last month I reported Oklahoma in the list of foreign nations represented on our visitor register. The alert and diplomatic editor deleted the reference, fearing another War Between the States and also knowing that the Arizona Navy already has its hands full with the Californiacs. Now I see that I was altogether wrong and he was right, as yesterday one lady registered as being from "Tulsa, U.S.A., Okla." It is U.S.A. after all!

Weather for the month has been pretty good until just recently. The temperature ranged from 72 on the third to 23 on the fourteenth and sixteenth. Precipitation was .24. Around the 19th and 20th we had several very disagreeable days, wet, windy and generally uncomfortable. Visitors did not stay long in the ruins, nor could anyone blame them for wanting to be on their way.

Speaking of visiting, I did a little myself this month. On a day off the H.C.W.P. and I called at Tumacacori. It had been some

CASA GRANDE (CONT.)

years since I had seen the place and it was Virginia's first visit. We were cordially received by Custodian George Boundey, who explained in detail all about the interesting old mission. We greatly enjoyed the trip and would like to make similar visits to other Southwestern Monuments.

The ranger quarters are again being improved. In September they got a new bathroom. Now, for some reason they seem to want hot water, too, and the temperature hasn't been below 23 this winter! So now we are installing a new water heater. The way we pamper those boys is terrific. Next thing you know they will be wanting a forty hour week and Christmas Day off.

You are familiar with the difficulties we have been having recently with our sewage disposal system. Apparently there have been too many houses added to the system since its installation several years ago. Repairs are in process but the matter is not satisfactorily settled as yet. The job unavoidably costs more than our funds will stand, so we hope there is a Santa Claus.

During the month Hugh Miller and I called on the Indian Service in Coolidge to get figures regarding the costs of getting their electric current into this monument. We found that if we could once get the installation the upkeep, cost of current, etc., would be considerably less than our present plant is costing us. Where to get the funds for such installation is, of course, a question. Undoubtedly the Government would save money in the end by making such an installation.

During the holiday rush here we have had a good chance to see the inadequacy of two guides working according to the standards established here for ruins and museum trips. In fact, with only two guides working it is not possible to give a good ruins lecture and follow it with a complete museum lecture and still handle traffic outside and not make visitors wait too long for their guided trips. You, of course, already know all this. I had been told about it and am now finding it out first hand.

I also find that during a rush it is practically impossible to keep from using the museum as a gathering place. Of course, this is an undesirable procedure, as most visitors will not return to the museum after visiting the ruins if they have spent ten minutes or more in that museum while waiting for that ruins trip. They feel that they have seen all there is to see. Our museum is not self-guiding, especially the largest room. At least a few words of explanation are necessary in there and, of course, there is room for a complete lecture. What is the answer? Apparently either more guides or a self-guiding museum. Frankly, I do not know enough about museums to say whether the self-guiding kind are satisfactory for our type of material or not. If they are, then it looks as though our museum should be made more suitable for giving in-

CASA GRANDE (CONT.)

formation to the visitor without a guide. Otherwise we shall just have to pray for more guides. Of course, in slack seasons the present two guides do have time to give talks in the museum as well as in the ruins, but not during the busy period. Notice that I am basing my ideas only on the use of two guides, without any assistance from the Headquarters staff. It does not seem quite right that the Headquarters outfit should be expected to do any guiding, just because they happen to be at Casa Grande. Other monuments do not have the benefit of such assistance, and the Headquarters boys have their own work to do.

Boss, on looking back over this report I find that I have written some things especially for you and some more especially for other people who read the Southwestern Monuments Monthly Report. It is all right with me if you publish all or any part of it.

CANYON DE CHELLY

By Robert R. Budlong, Custodian

Winter is now officially with us, having come in yesterday like a lamb, bringing with it the highest temperature for the entire month. It was really hot -- fifty-five degrees Fahrenheit. I managed to get my feet thawed out for the first time in weeks.

Visitors for the month numbered 23. This is quite an increase over last December, when we had but three visitors. Of our 23 visitors this month, four drove within the canyons and 19 drove to the rim. Of these 19, three descended the White House Trail. Visitors arrived in nine automobiles. Three of our visitors were from Germany.

Weather for the month has been variable, and temperatures somewhat low. Minimum was 4 degrees, on the 17th, 18th, and 19th. Maximum, 55 degrees, on the 22nd. Greatest daily range of temperature, 43 degrees, also on the 22nd. Precipitation for the month, .34 inch. Snow has fallen on the nearby mesas and mountains, and on the canyon rims, with only a few flakes falling at Chin Lee. Roads have been about as usual, and that is not meant as a compliment to the roads.

The Custodian's residence is still in the process of construction, and about 75 percent completed. The roofing is now being laid, and plastering of the outside is expected to be started today. The electricians have about completed their roughing-in work, and some of the plumbing and drain pipes are now being installed.

The water storage reservoir is finished. Associate Engineer J. B. Hamilton arrived at this Monument on December 2. Work commenced December 4, and the reservoir was completed by noon December 13. Local Navajo labor, only, was employed. Only those men who were approved by the officials of the Canyon Chapter were given employment, and this policy I intend to follow in all future work at this National Monument.

CANYON DE CHELLY (CONT.)

On December 21 I addressed the Canyon Chapter of Navajos at the Indian School auditorium at Chin Lee. Several hundred Navajos were present. I am grateful to Chis Chili and the officials of the Canyon Chapter for their cooperation and support.

The canyons are not now in condition to permit of travel by cars equipped with ordinary tires. Water is flowing from both canyons, and while the stream is frozen much of the time, thawing occurs in spots, and these places can easily cause trouble.

Superintendent Roger W. Toll, of Yellowstone National Park, accompanied by Acting Superintendent Paul Franke and Harold Nelson, of Mesa Verde National Park, visited this Monument November 26 and 27. We had a most pleasant visit with them the evening of the 26th. On the 27th, Mr. Stamm of the Soil Conservation Service, drove them within the canyons in one of the big-wheeled SCS trucks. The Indian Service cooperated in their usual fine manner in furnishing a room and meals. It was the first time I had the pleasure of meeting Mr. Toll, but I hope it will not be the last.

Milton Wetherill, accompanied by three guests, visited this Monument November 23, and nearly got away without seeing me. I managed to corral him in Mr. Garcia's Trading Post. We spent a most enjoyable evening, and they attended the Yebechai Dance that night. The following morning it was raining, and they departed for Kayenta hurriedly, before the roads became too muddy, without seeing the canyon. They don't know what they missed.

Architect Lyle Barcume has been in on inspection trips several times during the month. Chuck Richey appears to be hiding out somewhere.

And so we enter the season of turkey, cranberry sauce, last-minute shopping, and sadly depleted exchequers. In two days Christmas will be upon us. We extend to the entire personnel of the Park Service best wishes for a most happy Christmas and a most successful New Year.

MONTEZUMA CASTLE

By Martin L. Jackson, Custodian

Will make an attempt to get out our first monthly report on the new typewriter. And as bad as it may be am sure it will not be any worse than many that I have gotten out on the old machine, and even if this report is not any better, it is a lot more fun in getting it out.

Our visitors for the month number 568. They hail from 27 states and three foreign countries as Follows:

MONTEZUMA CASTLE (CONT.)

Arkansas	Arizona	New Mexico	California
Utah	Wisconsin	Oklahoma	Wyoming
Rhode Island	North Dakota	Maryland	Illinois
Oregon	New Jersey	Minnesota	Texas
Colorado	Washington	Nebraska	Idaho
Virginia	Pennsylvania	Louisiana	Michigan
Monouri	Nevada	Kentucky	

The three foreign countries were England, South Africa, and Canada.

Have had the usual run of weather for the month, which means, of course, that the sun shines almost every day. Had a couple of showers during the month, both falling during the night.

Condition of roads leading into the Monument are better than they have been for quite some time. So now there is no reason or excuse for visitors not coming unless it is that they just do not want to see a good cliff dwelling.

The nearby dude ranches report that their winter guests are arriving and from all indications they are going to have a good season. Naturally, we are hoping they do, as they all make our Monument during their stay at the ranches. And they have some of the most influential people in the entire country as guests. We like to get some of these easterners as visitors, as a big percent of them have never visited a national monument, and it gives them an opportunity to see how the moneys appropriated for the administration of Southwestern National Monuments are being expended. And, further, our experience is that the most of them are quite interested in what we are doing. Of course, an interested visitor is almost always an interesting visitor.

Due to the fact that Norman Jackson, the official bird bander at this Monument has been away most of the month, the bird banding has very little to report. However, I walked out one morning after a shower of rain the night before and found that a funny looking old bird had walked into one of the unbaited traps that we had failed to bring in. At first sight I thought I had caught one of your rangers, and rushed madly back to the house to get the gang to back me up in my identification, which they did. The worst is yet to come! After the said bird had shown a little action by moving around in the cage a bit they all with the exception of myself voted that he moved around more like a custodian. Needless to say, I immediately released the bird for fear some bird expert would drop in and would not vote for my side. The bird remains unbanded as well as unidentified as to species.

Earl and Betty Jackson of the Bandelier National Monument, spent Christmas with us. This is Betty's first visit to the Monument, and it so happens that she is our first and only daughter-in-law. We have her word for it that the wife and myself happen to be her first mother

MONTEZUMA CASTLE (CONT.)

and father-in-law. We think Betty is quite all right as we razzed her a lot and find that "She can take it." I understand their plans are to skid in on your Monument for a short stay and then on back to Bandedelier by way of White Sands National Monument. Earl seems to be all worked up about some things Custodian Charles has written concerning some sands to be found there, and I might add that we all are. Will close by wishing each and every one of you a prosperous happy New Year.

WALNUT CANYON

By Paul Beaubien, In Charge

Two hundred and eighty-three visitors registered this month, in comparison to the 122 of December, 1934. This increase attests the clear, even-tempered weather. Although cold, I've enjoyed most of the month. However, with the colder weather, few visitors actually enter the canyon to see the cliff dwellings first hand. From the observation Point, they see a dozen in the distance and are satisfied to leave, hoping to return in warmer weather.

Park Service visitors were Roger W. Toll, Superintendent of Yellowstone National Park, Jack Diehl, Hugh Miller, Bob Rose, and Vincent Vandiver.

One visitor came riding down the floor of Walnut Canyon from the west. He took his horse out at the trail by the ranger cabin where I thought it was difficult for a man to climb. I consider this the most astounding feat I've witnessed since coming to Arizona.

I recently made a ladder and then investigated the cistern. I won't take time to tell you all I found there but will say I'm hauling water from town now. Will have the cistern cleaned before leaving so there will be some good water here next spring.

Am gathering all information possible for "trail side" signs. With the help of the naturalists, I hope to see the finest Nature Trail in the world here next summer.

Haven't much to report in regard to bird banding. A little snow lingered over from November and, with a fresh supply on the fifth of this month, I put the water trap in storage for the winter. Desiring to band more than 300 this fall, I set a few traps baited with food. I caught 15 birds this month after expending more time and effort than last month when 237 were captured. Three Pygmy Nuthatches and four Rocky Mountain Nuthatches were caught with tallow bait while three Shufeldt Juncos and five Red-backed Juncos were trapped with chick feed.

TUMACACORI

By George Boundey, Custodian

Visitors for the month of December, 1931.

During the month we had several days of rain and very disagreeable weather. There was one day we did not have a single visitor. As a rule the cloudy rainy days are busy as we are on a good highway and people drive out here in preference to taking the longer drives.

Have always made it a point to tell the more interested visitors of other places of interest in the vicinity and this year have had quite a number of visitors ask for further information. Several parties have returned quite enthusiastic over their finds.

On Christmas day a man and his wife, foreigners with a driver and well equipped car, came searching for several large guano caves in the vicinity. They were just from a visit to the Casa Grande National Monument, and I thought probably were sent here by the Boss. When I told them one of the caves had furnished much guano during the war they seemed quite excited.

Brigadier General Hubert A. Allen and wife spent several hours at the mission early in the month. He is very much interested in old Fort Buchanan, just out of Patagonia on the Nogales-Tombstone highway. The General has located the graves of several soldiers buried near the fort. Through the local Legion posts he hopes to have the bodies removed or taken care of by the Legion.

It is at Fort Buchanan that half a million dollars worth of cannon, small arms, etc., were buried when the troops were called east at the breaking out of the Civil War.

Among those who registered this month was Senator Carl Hayden and wife and a party of the Rascobs from New York City.

CHIRICAHUA

By Wm Stevenson

Following is the Monument travel report for the month of December:

CHIRICAHUA (CONT.)

During the month 120 visitors arrived in 25 cars.

December 18 we had our first snow of the winter. However, one warm day removed all traces of the storm, and we were deprived of a white Christmas.

December 10 we were honored by a visit from Senator Carl Hayden, John Browell, Vice President of the Bank of Douglas, Harry Clark, General Manager of Phelps Dodge Company, Douglas, Arizona, and Rex Rice, Postmaster, Douglas, Arizona.

CHIRICAHUA E.C.W. By Wm Stevenson, Project Superintendent

I herewith submit the following report for the month of December.

Trails have progressed satisfactorily this month. 1200' total have been completed on the Sara Deming and Echo Trails.

Rock work is 90% complete on the Ranger Station and Bath house. All materials are on the ground for these projects.

Backsloping on the Bonita Highway was resumed the second week of December. Approximately 200 sq. yds. were completed this month, bringing the total to 100 sq. yds.

Maintenance of Bonita Highway continued throughout the month, as storms caused considerable sloughing of cut banks.

One week of work was lost this month due to Christmas vacations.

Visitors for the month include:

- December 11 - Al Keuhl, Landscape Architect.
- December 15 - Mr. Borell of the Wildlife Division.
- December 17 - Mr. Douglas, Auditor from the Washington Office, who was accompanied by Mr. Wagner of the Branch of Forestry.
- December 24 - Norman Smith, Geologist, who intends to spend some time here studying the rock formations of the Monuments.

CAPULIN MOUNTAIN By Homer J. Farr, Custodian

Capulin Mountain National Monument, has had a very good December, with a fair run of winter visitors; I would say about 500. Highways have all been open all winter and the road to the top of the old crater

CAPULIN MOUNTAIN (CONT.)

has been passable all winter, but not in excellent condition.

Weather:

Have had three small snows this month; all together have had fair moisture.

The thermometer has been showing about ten above most every night and about 45 at the highest during the day. This has been rather regular all this month, and the three storms we had made very little change in the temperature. Last month I promised soon to write and describe our pictographs near this Monument, but will have to postpone it until some other time.

The custodian plans spending the holidays at Newgulf, Texas. Will be back on the job about January 5. I take this opportunity to extend to all the Service a Merry Merry Christmas.

GRAN QUIVIRA

By W. H. Smith, Custodian

Due to the bad weather conditions the last month's travel has been rather slow. I have only registered 200 visitors entering the Monument in 56 vehicles. These visitors register from six states including New Mexico and one from Washington, D. C. One reason that travel has dropped off is that we have had quite a little rain the last month and that made the roads almost impassable. But even with this drop in the travel we are still reporting a few more than we did for the same period last year.

On date of December 14, 1935, we had Mr. E. B. Packer, U. S. surveyor from Washington, D. C., who is surveying some of the major lines of the state. Then on date of December 18, 1935, assistant Superintendent Hugh M. Miller and Naturalist Robert H. Rose of the Coolidge office came by and they and I made a business trip to Albuquerque, New Mexico.

On the night of November 24, a slow rain started here that continued all through the night, and the following day and night. It was estimated that there was about five inches of rain during this spell. It soaked into the walls of the mission and thoroughly wetted up so much of the mortar between the stones that there was a considerable slump in the walls in several places. A slow soaking rain of this kind always costs us a good deal of walls. Then again on date of December 4, there was quite a little snow and rain that wet the roads up and stopped all travel by this Monument for some time. At the present time the sky is overcast with clouds, and it is snowing. It looks as if we were in for a big snow this time.

WHITE SANDS

By Tom Charles, Custodian

Ordinarily it is a pleasure to get out this report, but I can't claim it this time - too near Christmas. Tonight five of the married children will be at home with the in-laws and the grand children, 18 of us in all. What a grand and glorious feeling. So far there has been but one fly in the ointment; poor Bob, the 5-year-old from Santa Fe was looking at pictures of a golf game at the White Sands: He crowded up to me and after his arm was tight around my neck he said, "Grandpa, it will be tennis courts next, and pretty soon we kids won't have any place to play out there, at all."

The Sun Bowl Carnival at El Paso on January 1 is to be the big holiday event of the Southwest. It is said there will be over 100 floats representing the events and attractions of three states and Mexico. The El Paso management was anxious that the White Sands should be represented with a float. But floats cost money. Commercial institutions are putting as much as \$600 or \$700 in their floats, and it is said that our good friend and co-worker, the Lincoln National Forest, put up \$500 for a similar creation for the State Fair at Roswell recently. There isn't a place where we can squeeze out even \$5.00 to portray the beauties and attractions of this precocious child of ours. But, "The Lord tempereth the wind to the shorn lamb." The Alamogordo Rotary Club came to our rescue and voted to sponsor the White Sands float. They appointed P. A. Smoll, an old time Park Service official from Rocky Mountain as head of the committee.

The lumber yards contributed lumber, hardware stores the nails and metal lath, carpenters did the building, plasterers the plastering. In fact, every line of labor and every piece of material has been donated. Some 17 or 18 different people came forth with cash or labor. The float will portray a family picnic at the Great White Sands. In the foreground will be the purple pennyroyal and the cactus, along the border the yellow primrose. In the background the rippled, snow white hills, the rugged San Andres, and the gorgeous desert sunset. It is a little early to predict, but it is my guess that it will be some float. I'm betting my money on the Home Team; and what use has the White Sands Monument for money when it has friends like these?

A surprising large number of Otero County people are using the white sand as a background for their Christmas trees. One family combines the Christmas tree idea with the idea of the shepherds and the wise men at the birth of Christ. They have the miniature sheep and camels and men all properly placed in the hills and valleys of the glistening sand. With the one bright star and the colored lighting it makes a beautiful picture.

A group of California tourists were excited this week about finding "bird eggs" on the white sands. Fortunately our ranger had found similar eggs some time before, and we were armed with an

WHITE SANDS (CONT.)

explanation given us by Bob Rose, Park Service Naturalist. Mr. Rose says the "eggs" are but grains of sand which have been consolidated by the action of acid which some insect secreted while preparing for his long, long sleep. These insects build their own coffins from white sand by the use of an acid secretion.

Unfavorable weather conditions elsewhere has forced the tourists this way the past week. Last Saturday there were 137 cars through the monument in 8 hours. Sunday I counted the cars at the junction of the road into the sands and 56 cars passed through the Monument in 1 hour and 30 minutes. The percentage going into the sands is down, but the increased traffic keeps our attendance up.

In a count of 16 periods of 4 hours each 622 cars passed through, approximately 10 cars an hour, 140 a day. At that rate we are having 51,000 cars a year. Sixty percent, 30,000 a year, have foreign license. Our usual Sunday crowd of 200 to 250 visitors is keeping up and we estimate that the total for this month is 1840.

Well, I've muddled through. I hope that the rest of your Southwest family is getting as much kick out of Christmas as we are. It surely gives one the spirit of Good Will on Earth when the family gets together.

With the kindest personal regards to you and a Merry Christmas to the Whole crew, I am.

BANDELIER

By Earl Jackson, Custodian

Follows the December Monthly Report for Bandelier National Monument. This report is complete only through December 21, as I am taking part of my annual leave. January's report will cover the missing three days in December.

Visitors:

Visitors numbered 130, arriving in 44 cars, from 18 states and Washington, D. C. Four people came in on horseback. Cars came from 12 states. These states by visitors were:

New Mexico	-----	81	Massachusetts	-----	4
Colorado	-----	11	Vermont	-----	3
California	-----	9	Michigan	-----	2
Texas	-----	5	Missouri	-----	2
New York	-----	4	Connecticut	-----	2
Pennsylvania	-----	4	Oklahoma	-----	3

Our visitor attendance shows a drop of 84 under December of 1934. This drop is explained solely by severer weather conditions.

BAIDELIER (CONT.)

Last year seems to have marked the end of one of our cyclical drought periods.

Weather and Roads:

Minimum temperature for the month was 10 degrees above zero. Precipitation was 1.94 inches. We have had three snow storms, one very mild. The last storm, on December 5, brought three inches of snow, which was as heavy as at any one time during last winter. There have been fourteen cloudy and partly cloudy and partly cloudy days.

Road conditions have not been bad. They have been muddy and rutted some, but never impassable.

Special Visitors:

November 26 - Charles A. Richey left after a three-day landscape inspection.

December 4 - Charles A. Richey arrived again for a two-day stay.

Mr. and Mrs. George H. Kittredge, Detroit, Michigan, were very interested visitors to the ruins.

December 6 - Mr. and Mrs. H. S. Ferguson, Belmont, Mass., were another exceedingly interested couple.

December 8 - Jack Diehl arrived for a stay of one day.

Miss Irene McClain, a beauty shop operator from Taos, New Mexico, reports she has never had an Indian customer. The sun-tan complexion seems good enough for Taos natives.

December 11 - Captain F. A. Taylor and Mrs. were interested visitors from Fort Bliss, Texas.

December 16 - Captain and Mrs. R. I. Thornton were visitors from Santa Fe. Captain Thornton organized the volunteer fire department in Santa Fe forty years ago.

Dr. Reginald G. Fisher, of the School of American Research, was in.

Mr. R. O. Longnecker, General Manager, Western American Life Insurance Company, visited the ruins, for purposes of getting material for a radio broadcast.

December 19 - Mr. B. L. Douglas, Field Auditor, E.C.W., accompanied by Junior Forester and Mrs. Claude A. Wagner, arrived for a two-day stay.

BANDELIER (CONT.)

December 20 - Hugh Miller and Johnwill Faris arrived for a one-day stay.

Nature Notes:

With the advent of snows, deer and turkey have come down off the highlands. Several turkeys have been seen in the near vicinity, and their tracks are everywhere. The other day a few came down to within a hundred yards of the custodian's house. They appear to be healthy enough, and not to be suffering for lack of food.

Two or three coyotes have been seen, and their tracks are numerous over South Mesa.

Juncos are thicker in the canyon than hair on a dog's back. Very few other birds are seen now, except, of course, the jays.

Last month while down the canyon toward the Rio Grande River we saw evidences of some beaver work. Recently, below the Lower Falls of Frijoles Creek, we found two excellent beaver dams, and one other not so good. And all the way from the falls to the river, (about 1/2 mile) a great number of cottonwood trees have been cut. Eight or ten cottonwoods measuring twenty-five to thirty-five feet in height are down, and probably three times as many small trees.

I doubt if this beaver stays long. He evidently doesn't care to climb the trail around the falls to come farther upstream, and there won't be much for him to eat in the lower canyon unless he does. Frankly, I hope he doesn't come up; if he got into the middle part of Frijoles Canyon around the development area and ate out some fine planted trees, the landscapers would have severe internal hemorrhages, and I don't know as I could blame them.

Betty's report on bird banding for the month will be found in the Supplement.

General:

I took the bull by the horns and got a task performed which has been needed for some time. You've heard about how the ruins in Frijoles Canyon are falling to pieces by leaps and bounds because we don't get a stabilization project authorized? And if you had been here off and on after storms during the past year, you could have seen how one of our best remaining kivas in the whole district was breaking down. Only the last storm brought down a good section of the original wall in this kiva, and the remaining wall was so weakened that it was a question of months until the whole thing came in.

So, with premeditated fell intent, I effected the repair of this defunct wall. The rocks were all replaced, re-mudded, and rubble and cement were put in the trash fill behind the wall to keep pressure

BANDELIER (CONT.)

from it. Now it is a swell looking job, and the whole circle looks as though it would stand indefinitely.

It would certainly be a wonderful thing if we could get some definite authorization to proceed at once with emergency repair items like this, rather than wait for that Utopian hour in the remote future, and hour that may be so remote there will be no walls left to repair.

"An ounce in time saves nine." was never more true than in its application to timely preservation of Indian ruins.

So, let us pray that the powers that be will see to it we may proceed to RUINS STABILIZATION within the near future. The cost of repair work to old walls is ridiculously little in comparison to general construction items, and it is criminal for us to postpone such work. We have thousands and thousands of dollars being spent in National Monuments for buildings and machinery to house the agencies which are intended to exhibit and care for our sites of interest, and, in the case of ruins at least, are letting the major item, the drawing card to the Monument, go to pieces in rack and ruin.

Bandelier is coming in for some more publicity. Recently the Director of the New Mexico State Tourist Bureau, Joseph A. Bursey, appealed to me for an article and photos to put in several national travel magazines this winter. I submitted these items, with your approval.

The other day Mr. R. O. Longnecker, General Manager of the Western American Life Insurance Company, was in to see me and asked for data which he might include in a series of radio talks to be given soon on features of interest in the Southwest. I let him have the kiva article which appeared in last month's report supplement, after his agreement to submit the specific talk he wishes to give, based on the article, to you for approval before giving it.

Visitors, although few in number, have been exceedingly worth while this month. I haven't talked with a one yet who wasn't interested.

CHACO CANYON

By T. C. Miller, Custodian

General:

Approach roads have been in bad shape most of the month because of so much snow and rain. However, considering the bad roads, wet and cold weather, we have accomplished a lot in the way of construction. One official trip was made away from the Monument during the month to Chiricahua National Monument, by the way of Headquarters. The purpose of the trip was to get a water tank for storage and to

CHACO CANYON (CONT.)

get office supplies, also to talk over with the Boss a few of our problems here in this Monument. From my point of view it was a very satisfactory trip.

Weather:

Maximum for the month was 46 on the 12th. Minimum was 8 above on the 18th and 19th. Precipitation 1.07 rain and melted snow was reported for the month.

Travel:

330 people entered the Monument in 108 automobiles, coming from the following states and foreign countries: Arizona, California, Colorado, Connecticut, Iowa, Nebraska, New Mexico, Texas, and one party of three from England.

Special Visitors:

Associate Engineer Hamilton was here December 1, and 14, inspecting our fence and Soil Conservation Projects. Emil Kopac, Cshkosh, Nebraska, representing the Oregon Trail and Historical Research, was a Monument visitor on the 19th:

Chaco Fence Project:

To date the Contractor has completed 9000 rods of fence. Two twelve-foot cattle guards complete. Nine twelve-foot gates complete. Concrete for strains, ends and corner post, 90, cubic yards in place. Hauling Government materials complete. The fence will be finished some time in January. Bad weather has slowed up the work and now we are on the mesas where it is rough and all solid rock. Material for the fence is being carried up on the mesas by man power and, of course, that is slow work.

I am making this report on the 21st. Junior Naturalist Caywood is supposed to relieve me today so that we can take a little vacation during the holidays. Mr. Caywood will probably make a report also!

CHACO SUPPLEMENTARY REPORT

By Louis R. Caywood

Enclosed you will find my report for the past month and a little addition to Cal's report if you wish to add it. Also there is a copy of a letter that Cal wished me to send you and a picture that McKinney gave me of the little waterfall behind Pueblo Bonito.

Winnie and I made the trip in fine shape without any more trouble. The road from Thoreau is dry and in pretty good shape for this time of the year.

CHACO (CONT.)

The place is practically deserted. Everyone has either gone or is going tonight to spend Christmas with their respective families. No visitors have shown up since our arrival but guess that is to be expected this time of the year.

No additional visitors have been to the Monument since my arrival on Monday, December 23. The weather continues to be cold with snow in evidence on all north slopes of the mountains and canyons. Quite a change from Casa Grande, and Winnie and I feel very fortunate in being allowed to occupy the quarters of the Custodian during his absence.

The Soil Conservation program under the supervision of Mr. Lewis McKinney is going ahead with what seems to be very good results. Following is a brief report by Mr. McKinney:

"Soil Conservation Service is now working 50 men on this area. All small headers have been plugged in Hungo-povi Canyon. We still have one large dam in the large header at the mouth of the Canyon.

"We are now working on a wall behind Casa Del Arroyo to protect the ruin from caving off into the Canyon. We have an earth dike built between Casa Del Arroyo and Kin-Klet-Soi to keep the water from starting any more headers and also to protect those that have already started. We also have one large jetty built in the Chaco Wash a little ways above Casa Del Arroyo to throw the water from the bank that Casa Del Arroyo sets on. We have built small sausage dams in each header that the road crosses, leading down the Canyon toward Penasca Blanco and also have repaired the road and built sausage dams in the headers that the road crosses leading up the Canyon toward Chetro Ketl, Hungo-povi and Una-Vida ruins "

I hope that everyone at Headquarters had a very Merry Christmas and wishing you all a bright and prosperous New Year.

WUPATKI

By James W. Brewer, In Charge

Travel:

Twenty-three guests registered at Wupatki Pueblo; at the Citadel group, 42; 2 names are duplicated, leaving a total of 63 visitors to the Monument in December, 1935; 1934, 42; 1933, 21.

States were represented as follows: Arizona 14; California, Illinois, Colorado, Kansas, 3; Minnesota, 2; Nebraska, Ohio, Michigan, Oklahoma, New York, Massachusetts, Idaho, Indiana, Wyoming, and Missouri, 1.

WUPATKI (CONT.)

Weather:

November 26 to December 1: high temperature, 55 on the 26th; low, 30 on the 29th and 30th; four sunny and one cloudy days. December 1 to 24: high 55, on the 21st; low 27, on the 21st. Precipitation: .24 inches on the 4th and 5th; 15 sunny days, nine cloudy days.

Newsworthy Visitors:

Superintendent Toll of Yellowstone paid us a visit on the 5th. Mr. Toll asked the best way to Black Falls, to which I replied; "Get into the roadster and let me drive you." (The trails are dim and the surfaces are often treacherous). Disregarding any possibility of Monument caliber, I knew Black Falls would be a disappointing sight so I elected to reach it via Wupatki. I am very glad I did this because Mr. Toll seemed to enjoy Wukoki immensely and asked for all the data on it.

We came back by way of the lower Crack-in-Rock road and stopped in at a hogan where Mr. Toll paid Ruby Peshlacai \$1.75 for a small rug. (See Navajo Christmas Party).

Engineer Jack Diehl called on the 11th, and we went over the trail work already done and outlined more trails. Jack offered some excellent dope on method for installing the "I"-beam under the pueblo's tallest wall.

Mountain Lion:

The sheepmen herding bucks between Heiser Spring and Arrowhead Tank report two or three mountain lion in the neighborhood of Doney Mountain. Wildlife Technician Grater has, as yet, reported the only tracks observed.

"KISHMUS" PARTY:

The first annual (?) Navajo Christmas party was held on December 21-22 and will long be remembered.

Preparation for the party began early in the month with lists of whom to expect and what to get for them. I borrowed a 15-man camp outfit from the National Forest Service and prepared to feed 30 Navajos three meals each.

Sallie's remarkable shopping provided each woman and child with pans, shopping bags, soap, hand lotion, and toys. Young boys got gloves and socks; the men were remembered with cigars, tobacco, and clothes which were donated.

On Friday Clyde and I went to Sunset Crater and chopped the road-obstructing trees out and looked at piñon suitable for a Christmas

tree until Clyde got across the idea that his father preferred a fir tree. So nothing could be done but get a fir tree from the Forest Christmas Tree area for Peshlacai Etsedi. Arriving home after dark we built a stand for the tree and weighted it securely down in front of the CWA cook shack and covered the base with cinders. A near-sighted Wildlifer might have called it an exotic.

Saturday morning Sallie dressed the tree with garlands, bells, and lead foil icicles, and put the boxes of gifts under the tree. At noon the first family arrived--Clyde, Sarah, and Catherine. Virgil and Aski Yassi were to come after bedding the sheep for the night. The arrivals were dressed as for a sing, and we were properly appreciative of the honor shown by their wearing of best clothes and silver. After unhitching their team they all went down to the end of the pipe line and washed their hair with yucca root.

The next arrival was Mr. Watson Smith who brought fresh loaves of bread (20) and cellophane packages of oranges, candy, and nuts. Then came Mr. and Mrs. Phillip Johnston of Los Angeles (weren't we honored to have them travel so far) who brought scads of clothes collected from all Los Angeles.

Then came the wagons--a red one drawn by four bony ponies, a green one full of brightly blanketed women and children; Grand Post (the name comes from his stature) on horseback with his wife in her orange-wheeled desert phaeton carrying sheepskins and children. Last but not least came the Grand Old Man of Wupatki Basin and "daddy of them all" -- Peshlacai Etsedi. When he rode into camp with a twinkle and a wrinkled smile I got my first inkling of what was to happen--the unbending of the Navajo reserve. For the first time in my three years' acquaintance with this family I saw them drop their austere aloofness to register recognizable pleasure.

Dusk was deepening by the time this last wagon was unhitched and the horses hobbled. A big fire was roaring in the old CWA quadrangle. Inside the cook shack the frijoles were brought to boil again and coffee removed to settle. Blankets and pads made the chairs, the floor a table; two huge pots of beans, mutton, bread, and coffee were followed by two boilers of prunes. After dinner too many volunteers made short enough work of the cleanup while Ruby, Sarah, and Gladys (Dinne) walked beaming and mysteriously about snatching tissue paper for wrapping carefully hidden gifts.

Outside three cars were parked facing the tree and with the placing under the tree of the last minute packages, the lights were switched on.

With the help of Clyde and Phil Johnstone Sallie distributed her purchases and bundles of clothes to the Navajos. Then Clyde stepped into the role of Santa Claus and produced a multitude of small rugs.

for all the whites. In addition to three handsome rugs Sallie received a many-turquoise studded ring that had long been a prized possession of Sarah, a hand-made silver bead necklace by Clyde and \$1.75 in silver from Ruby (see Toll's visit).

Gathered around the fire a request was made by Sallie for a Navajo song. After a long discussion by Phil and Peshlacai it was decided that while a song suitable to the season and occasion could be sung, it would have to be sung all night; maybe the whites weren't quite up to that--at any rate it wasn't done.

Another point that Peshlacai brought up was: since the tree had been used in a ceremonial capacity, it would have to be treated as Yeibitchai feathers or ceremonial paraphernalia--put where stock, horses, and dogs could not trample or otherwise desecrate it. We resolved to leave it standing until New Years, then burn it.

After the distribution of gifts everyone adjourned to the cook shack where the boys blew up balloons that frightened the babies and the girls made great pans of pop corn which was referred to as "kicking corn." The men talked and watched--and the women watched. So on into the night.

The next morning there were pecan waffles for the whites "upstairs" and baked ribs, etc., for the reds below. Sallie went down fairly early to get pictures of the guests and found the smaller children and one or two of the men already departed to look after the flocks they had left the night before.

Mr. Johnston, who is struggling to regain lost land for the Navajos, took several Indians and Mr. Carl Beck of Tuba City out to look over the land.

During their absence the balance of the Navajos departed expressing great thanks and hopes for a similar party next year.

SUNSET CRATER

By James W. Brewer, In Charge

55 visitors registered at this Monument during the month of December, 1935; 53 in 1934; no record for 1933.

States were represented as follows: Arizona, 20; California, 9; New Mexico, 4; Colorado and Washington, 3; Minnesota and Illinois, 2; Ohio, Oklahoma, and Kansas, 1. Austria and Canada, 1.

Of the three trees, mentioned in the November report, obstructing the road between this Monument and Wupatki the first was removed by the Forest Service road crew, the third I chopped up and cleared up.

The second tree crosses the road at its center which is about 30 inches in diameter; just a bit too stout for me to handle in view of the road crew so near at hand. Since it is on the Forest I believe their crew will remove it shortly.

AZTEC RUINS

By Johnwill Faris, Custodian

It seems hardly possible that December is almost gone and that we are on the brink of a New Year, which promises to be one of the most important in the history of the Aztec Ruins National Monument. This month shows a total of 391, the best December since 1929 when we showed through 495. Many of the number have been repeaters and locals, but these are given the same, if not superior attention, to those on their first trip. Ranger Hart has shown a very large percentage of these people and I am pleased to report did so in a fine manner.

Activities at the Monument have been on a par with any of our busy months. The 25 E.C.W. boys were with us every work day and for a part of the month we had 50 boys from the Durango Camp. The greater part of the month was devoted to a planting program, which is certainly showing results. Boss, I swore you could not beat the CWA crew that you supplied me, then I was willing to bet even money that our FWA crew was beyond any reproach, and now the C.C.C. boys are my big moment. They are a fine bunch of fellows, though Boss, and we greatly appreciate the work they are doing and the manner in which they are doing it. It may be entirely out of our line and something that you would appreciate my forgetting, but we here at Aztec cannot but take a personal interest in all our workmen and each of the boys. We do our best to see that in working for us and having contacted the Aztec Ruins, with the Park Service ideals that we endeavor to reflect, that that workman or that boy is better for having worked here.

But, back to what we have been doing during the month of December. The planting and landscaping in and about the parking area and headquarters building is almost complete. We appreciate that a percent of this will die and need replanting, but at present it presents a mighty pleasing unit. Some cleanup was carried on in the area east of the major ruin. Very careful followup was taken, in going over the area where we got our trees and shrubs, restoring it to as natural appearance as possible. The boys are accepting the responsibilities we place on them in fine way, and it is indeed gratifying. Leonard Zink, the foreman, is a wonderful factor in relaying the inspiration that is passed down to us through Former Director Stephen T. Mather, Horance M. Albright, Arno B. Cammerer, and several of our key men in the Service.

This month also finds the cattle guard painted, the museum cases assembled, many displays rearranged, odd jobs attended, etc. In the new display cases it is understood that the arrangement is only temporary.

AZTEC RUINS (CONT.)

but we are anxious to get the reaction of our visitor and are using the temporary features as a guide for our more stationary settings. We find that the public is reacting very favorably, in fact, to my surprise there is very little complaint in our moving the specimens out of the old rooms. Of course, we have not moved much of the pottery and the entire row of ancient rooms are still quite full of material, so it may be as the voids occur we may experience more complaint. That, however, is merely a challenge to provide something that will take up the voids and they will not be noticeable.

Several Park Service men have been with us since the last report. Jim Hamilton, Lyle Bennett, and Miller of Platt were in giving our ECW work the once over. Later Paul Franke with several Army men from Mesa Verde were down going over the advisability of a fly camp for Aztec. Hugh Miller and Bob Rose followed these men and a couple of days later we had Mr. and Mrs. H. B. Chase of Bandelier E.C.W., accompanied by B. L. Douglas, E.C.W. auditor, from the Washington Office. Bennett brought Lyle Barcume down with him on one trip that Lyle might carry on while Bennett is on the coast. Barcume is one of our old CWA friends so it is just like one of us to have him here.

We received a map of the drainage for our roofed Kiva this month, and it is over my head. I imagine it is a wonderful thing but do not see how it can possibly work. Before the engineers get me for that remark maybe I had better qualify it by saying that it might be fine as far as it goes but that it barely scratches the surface. I personally feel that with the expenditure of very little more money we might lower the water level and thus do away with any capillary damage. I surely appreciate the time and attention that the engineers have given to my problem, and am not meaning to criticize, but they have not hit on just what I want yet. No one appreciates any better than myself my inability to put exactly what I want in words, much less in a drawing, but I would like to see an engineer draft a map on Bob Rose's article several seasons back on capillary attraction and its damage to ruins walls. That in itself was deep for me, but I would like to see a picture of it with an actual problem on our monuments, on a blue print. There seems a great deal against digging out our original floor to replace beneath it a sand or coarse sub-floor, but if that is the problem and its solution, maybe that is what we need here, and after all, Boss, I know from experience that if I let Mr. Kittredge and his men alone they will get me a mighty fine finished product. This drainage problem is one that confronts many of the monuments, and I would like several of our men to comment on the feature. Several of the other custodians and rangers should have given this a great deal of thought, and truly I would like to get their comments.

It was my pleasure last week to accompany Hugh Miller to Bandelier National Monument and see the fine Monument that Earl Jackson heads.

CONT. AZTEC RUINS

Boss, it is a swell place, and I want to congratulate Jackson and Chase on the improvements they have brought about. I know of no monument, other than my own, that is more deserving of attention and improvement than Bandelier, and my advice to the various custodians, Aztec included, is that we better keep on our toes and hit the ball, or Earl is going to put us all to shame. I did not have the opportunity to go over the Monument with Jackson as I wished, nor did I get to go over the E.C.W. work with Chase as I would have liked, but I did appreciate the opportunity of making the hurried visit. The concession people I enjoyed very much. Mrs. Frey was a splendid hostess and while in the canyon we had the pleasure of meeting Mr. and Mrs. Boos. (Mrs) Dr. Boos was formerly of Rocky Mountain.

Well, Boss, I have a lot to take up with you yet on the work here, but I expect that I had better just write a long letter and save the standing of our Monthly Report.

The Aztec Ruins National Monument feels that it has made remarkable progress during the year 1935 and feels too, that it will make even more progress in 1936. We have enjoyed the help and cooperation your office and those of the various departments have given us, and we solicit its continuance.

Wishing for yourself and the entire personnel, a banner year in 1936, I am.....

EL MORRO

By Evon Z. Vogt, Custodian

Your custodian returned to his family from the high mining country of Colorado on the 24th. It was a drive of 450 miles made from Summitville near Monte Vista, Colorado, over the road thru La Cuesta and Taos where he ate his supper at what remains from the fire of the old Don Fernando Hotel. Driving down thru the Rio Grande valley and past the pueblo Indian country he spent the night at Santa Fe on the 23rd.

He found that the Laguna cut-off west of Albuquerque was in fine shape and enabled one to drive from Albuquerque to Gallup in three hours.

Considerable road straightening and building is in progress and should result in increased travel to El Morro and this entire region.

I inquired at Grants about road prospects on the straight course to El Morro, and we believe it reliably reported that a road project under WPA has been approved for continuing the road down over the mountain towards El Morro. If this is brought about it means we are not to be another summer without a passable circle drive from Gallup to Zuni, Ramah, El Morro, Ice Cave, and Grants.

Arriving about dark at my ranch home I found the family all busy in the kitchen with a savory supper taking form awaiting my return from the gold camp on South Mountain, Colorado.

Compared to the portions of Colorado that I have seen, New Mexico is in much better shape for safe wintering of live stock. Grass is plentiful where I passed and snow of a negligible amount. Cattle and sheep are fat. Owners more hopeful and encouraged. The cities of Santa Fe and Albuquerque were gay and Christmasy with many outdoor Christmas trees. In the Mexican villages many bright fires in front of the houses lighted up for their nightly procession and pageant of the Navidad.

Our day at home on the 25th was divided by early morning lighting of our pretty White Spruce Christmas trees, the giving of the presents, breakfast, and then a trip to El Morro.

I found the road rough but passable, snow six inches deep at the visitors register and deeper up against the cliff along the north inscriptions. Along the south side the snow had melted pretty well in front of the De Vargas and Oñate inscription area. Several inches of ice covered the water in the reservoir.

As I stood there and took in the view, breathed the wonderful air in the bright, morning sun, the pictures of the Old Indian and Spanish history ran thru my mind. I looked around me and realized that after all this was one of the most beautiful and treasured spots in all America. In my travels since last April, covering 30,000 miles in the western United States and Mexico, I have seen nothing like it. The life of the past goes thru one's imagination in a procession of mental pictures. Hard-pressed Indian tribe living on top in their fortress homes, farming stealthily, always under strain against enemy, drouth, cold, and disease. The later days when the Spanish parties came with their caparisoned horses, their caravans of adventurous soldiers, saintly priests, more or less willing Indian guides.

To sit in silence here under these grand walls against the great pines is to commune with nature at its best, to appreciate the old life and to visualize the history in one of the cradles where history was made and where its evidence is well preserved thru the structures and painstaking records carved centuries ago.

No damage beyond some new water hauling tracks made by farmers coming in for water to the cove is noted. The ground being frozen limits the damage considerably but an effort will be to stop or at least direct the course of the water trucks around back of the ranger cabin.

In the visitors book no one had registered since the party from Dallas and New York that I had out there at Thanksgiving time. During

EL MORRO (CONT.)

Shalako time at Zuni pueblo it is reported that several parties tried to reach the Monument but it being at a time of bad mud they failed to see the Monument.

Last night about midnight when I went out we heard the song of the Navajos up in my pasture between the ranch house and Ramah. So my son and I drove up the road and into the timber following the sound of the song. Finally over the hill we came onto the camp of some 20 Navajos singing their wierd song around their big fire. I knew nearly all of them and was glad to see them again. Today there has been a stream of Navajos coming in to see our Christmas tree and decorations and to get presents of candy. Their bright-eyed children never tire at looking at the tree.

I have never heard so many piñoners or piñon jays as are about at this time of the year. This is true despite the fact that there are no nuts for them to feed on this winter.

Christmas day was a bright, snappy day and many of the village folks including my entire family and our guests went to the Ramah Reservoir to skate on the mile-long lake which was smooth and safe.

This exercise developed appetites which caused a complete demolition of our chicken dinner served in mid-afternoon.

Wishing all in the Service a Merry Christmas and Bountiful New Year, I remain.

TONTO

By Woodrow Spires, In Charge

Visitors for the month totaled 362 with the majority of them the first 12 days. Comparing this with last year's count for the same period, it shows an increase of 36%. 268 of the visitors, or 74%, climbed the trail to the lower ruin and 10, or 2%, of the total continued to the Upper Ruin.

To date, this has been a very mild winter; in fact, it hasn't been winter; not even a frost. The cottonwoods still have their leaves; the 12th of December they showed their first tinge of yellow, and now most of the outer leaves have turned, but the inner leaves are still green.

The weather figures from the Salt River Valley Water User's Association show a maximum of 69° on December 2 and 4 and a minimum of 32° on the 16th and 17th of December. There were five cloudy days and eight partly cloudy ones. Precipitation for the month totaled .70 inches in the form of one good rain and two light showers. These showers have been sufficient with the warm days to give the entire country a carpet of verdure, on which the cattle are staying

TONTO (CONF.)

in as fine condition as I have ever seen. One cowman said his herd is in the best condition he has ever seen them at this time of the year.

Dr. Emil Haury of the Gila Pueblo visited the Monument and brought with him for the Monument one of their new rain gauges with which they are checking precipitation in relation to tree ring growth.

In the next report I will be able to give some figures on the number of visitors who stop at the Monument in relation to the number traveling past the entrance road. I have already spent two days getting figures but would like to have at least 10 days count before I release any averages.

General cleanup and trail work has occupied the spare time.

PIPE SPRING

By Leonard Heaton, Acting Custodian

Pipe Spring National Monument sends Christmas and New Years Greetings to you and the Southwestern Family; wishes them all the happiness and success in the world for 1936. Let our aim be that we will serve better in '36 than we did in '35, so that it can be said of us, "You are faithful stewards of the monuments; keep up the good work."

We have had splendid weather up here this month: no snow, a little rain and warm days. Today is nice as any spring day could be, which is an unusual thing as we generally have snow or cold winds on Christmas.

Our visitors have amounted to the lowest for some time. We have had the CCC boys up most every day as there is no other place to go after work.

There have been six park officials here the past month, ^{including} Messrs. Harry Langley, Al Kuehl and Carter of the Landscape Division. They spent December 3 and 4 here spotting the campsites and arranging tree locations.

I gave Harry Langley a ride in the old Dodge truck. He said "I would not have missed this ride for any thing, for you can't always tell where you are going." Mr. Carter drove the truck one day and he says it has all the diseases a truck can have and some he never heard of. Well, I think it is a darn good truck and I can get a lot of speed and work out of it, which makes me think of the Baling wire medal and the time I have spent on the truck in getting it fixed up so that it looks like somebody owned it.

PIPE SPRING(CONT.)

December 10 Mr. W. H. Wirt of the Forestry Division dropped in on the monument for a day and went over the monument projects with Mr. Draper and myself. Mr. Draper is the ECW superintendent. He also made an inspection of the CCC camp.

December 12, Messrs. Garden and Rozell, engineers from Zion National Park, were out to stake out some walks and drain ditches.

We have had from the following states: Idaho, 5; Utah, 8; Arizona, 3; California, 2; Local, estimated 190. Total for the month, 214.

I have been given a new activity which I have never had the pleasure of working in before, that of giving a talk each Friday evening to the CCC boys on the Park Service and things connected with it. I have not yet made up the list of subjects which I will use. I do not know how long I will be asked to give these talks, but I do hope they will be of some good to the boys.

December 21, with two CCC boys, I went up the Powell monument and rebuilt it as near as we could, placing the pine pole in the mound as it was. Ifound the place rather scattered and the rocks broken but we got them together OK. There were two sets of initials there---one on a rock that was on top of the mound---"W H M". This we replaced. The other was on the big rock just south of the mound about 2 $\frac{1}{2}$ feet, "B X T E R." What they mean or wheather they belong to the mound I do not know, but I would rather think they were put there later.

This mound is located in the northwest quarter of the Northwest quarter of Section 17, which the monument is also in. The best I could determine was it is near this point, $\frac{1}{4}$ mile South of the north line of the Section 17 and about 250 yards East of the West line of the same section.

If it were possible to extend the Monument Boundary to include this Powell monument, I would like to see it extended to the south to take in the old Indian ruins just south of the monument.

Could we put a bronze plaque up at the mound if we did not get the place into our monument?

The ECW activities are as follows:

We have had an average of 13 men working on the monument projects this month and they are doing fairly good work, after they have been shown the way we want it done. The following projects have been worked and partly completed:

PIPE SPRING (CONT.)

ECW-131-Boundary Fence. All of the posts in the fence now up have been topped 6 inches above the top wire. The holes dug for the rest of the fence, using $\frac{1}{2}$ box of powder on the northwest corner; about 65% complete.

ECW-203-Road Grading, nothing.

ECW-710-Parking Area, nothing.

ECW-132-Guard Rails, large stones to be used marked.

ECW-308-Ditch Diversion, engineering survey of grade made and 40% dirt moved. About 30% complete.

ECW-718-Walks. Walks laid out by engineer. Rock 50% hauled. There is part of this project that I would like some more information on. I am sending a separate sheet with my suggestions on.

ECW-308-Ditch Elimination, nothing.

ECW-147-Pipe Line, nothing.

ECW-144-Reservoir, nothing.

ECW-711-Camp Ground Development. The last two sub-projects have been worked on and 90% completed. We set out the following trees and cuttings: 25 Carolina Poplar; 11 Black Locust; 55 Lambordi Poplar; 13 Black Cottonwood; 5 Alantoas; 11 Elm; 32 Silver Leaf Cottonwood, total 153. There are yet a few shrubs to set out. The irrigation ditches have been laid out the best I can until the camp grounds have been laid out as to location of the fireplaces and tables. When they are spotted, then I can make the ditches permanent.

If the good weather continues we ought to be able to report a lot more of the projects completed by next month.

HEADQUARTERS BRANCH OF ENGINEERING

J. B. HAMILTON, ASSOCIATE ENGINEER

General

I visited Aztec Ruins National Monument November 30 on my way to Canyon de Chelly National Monument by way of Chaco Canyon. The pleasure of a talk with Johnwill and Bert was all I got out of the visit as work on the parking area project had ceased for the winter.

BRANCH OF ENGINEERING (CCNT.)

At Chaco the next day I talked with Cal Miller a while and, on his assurance that all was going well on the fence contract, pushed on to Gallup.

From Gallup I went out to El Morro National Monument and took some pictures of the completed steps for the final report. I found them not colored as they should have been. Mr. Brown overstained them, then took the stain off with some preparation which continued its action long after he thought it should cease. Vogtie will experiment with some of the cooperas left over and, we hope, get a color to match the surrounding stone.

On my return from Canyon de Chelly December 14, I visited Chaco Canyon again but found both Mr. Miller and Mr. Williams away. The contractors compressor was broken down so no work was going on.

Canyon de Chelly National Monument

I arrived at Thunderbird Ranch December 2 and left December 13. While there I completed the pouring of the 5000-gallon reservoir and the laying of the drain pipe from it. From there I had to make a couple of trips to Gallup to get a few tools and supplies, principally cement and pipe fittings, with which to finish the job.

Budlong and I with the help of Claud Begay built the forms and placed the steel for the walls and roof of the reservoir. Claud was not much of a carpenter and I would not highly recommend either Bud or myself. I could not spend all my time sawing boards and driving nails as I had to see the reservoir was built according to plan. However, I managed to knock some skin off of my fingers.

We were able to borrow the house contractor's mixer for the pouring which proved a great help in producing more uniform concrete with much less hard work. I hope I succeeded in conveying to Lewis Bros. how much I appreciated their assistance.

The Indian Irrigation Service were supposed to have started drilling the well by December 15, but were apparently unable to finish the well on which their rig was working by that time.

Conclusion

On December 20 I left Mesa Verde for San Francisco, arriving December 23. I expect to be in San Francisco most of the winter, working on plans for the seventh period of ECW and such other work as may be assigned.

J. H. TOVREA

Park Engineer Jack Diehl returning from Platt National Monument

ENGINEERING DIVISION (CONT.)

spent the first two weeks of December at Carlsbad National Park supervising grading operations on parking area and lining up work for Transitman Andy Clark and party.

Mr. Diehl returned to Headquarters December 13 and en route inspected Saguaro Loop Road location. Went to Tumacacori on the 14th with Engineering Aide J. H. Tovrea and inspected Mission for possible future repair work. Also outlined W.P.A. project for additional boundary wall. Spent 18th to 21 at White Sands National Monument with Superintendent Pinkley reviewing proposed roadwork. Left Headquarters 22nd and spent balance of month in San Francisco Office.

Chief Engineering Aide Tovrea was on road location at Saguaro National Monument first two weeks of December. Spent balance of month at Headquarters office on plan and profile of road and routine office work. Rodman Lloyd Beed took over balance of road location at Saguaro.

Transitman Clark and party spent December at Carlsbad Cavern National Park taking topography of parts of Cavern for trail location.

Rodman Clifford London left the Caverns on the 20th for San Francisco on annual leave.

NATURALIST DIVISION

By Robert H. Rose, Park Naturalist.

Staff:

During the month the staff of the Naturalist Division consisted of Junior Naturalists Dale S. King and Louis R. Caywood and the Park Naturalist. Mr. King has been at Headquarters during the entire month while Caywood has been in the field during the latter part of the month on relief duty at Chaco Canyon National Monument. Reference will be made later to the field trip of Mr. Rose. Messrs. King and Caywood are outlining their activities as a part of this report as usual.

Bandelier Museum Plan:

The most important work accomplished by the writer during the month was the completion of the tentative outline on "Educational Survey and Proposed Museum Exhibits Plan for Bandelier National Monument." Preparation of this report involved getting rough draft into shape for stenciling; preparation of drawings as plates; cutting the stencils; mimeographing of some 75 copies; and binding. Copies of the report were sent out to Southwestern field men and

NATURALIST DIVISION (CONT.)

to a few others for comments and suggestions. Particular mention here is made of the thorough and careful work done on the plan by Naturalist King. His comments and revisions are published in the Supplement of this report. Custodian Jackson and Ranger Steen also submitted some well studied notes and comments which have been of material assistance in formulating a better plan.

On December 29 and 30 Custodian and Mrs. Earl Jackson of Bandler were Headquarters visitors. While here a discussion was held on the subject of the proposed exhibits plan for the museum unit to be constructed. All comments received from the field and other sources received consideration. Agreement was reached on the exhibits as to subject material, sequence and extent of treatment. In general, the suggestions made by Mr. King involving changing the first few exhibits of the series and the suggestion of Earl Jackson involving changes in the Archeology-Ethnology series, were adopted. A more complete account of these points will be found in Mr. King's discussion in the Supplement. Definite decisions were reached as to procedure in assembling data in such manner that the plan can be turned over to museum preparators.

Activities in Wildlife Work:

Regional Wildlife Technician Adrey Borell spent considerable time in our district during December working in close cooperation with the Headquarters naturalist staff and the monument personnel. Mr. Borell's work here is especially appreciated since we have for some time wanted to receive expert instruction in bird skin preparation. The Naturalist Preparation Room for such work is temporarily located in the Service Porch room of the King residence. Practice in skin preparation has been the leading evening amusement of Mr. King and Ranger Steen. With birds on the refrigerator, a table and on shelves together with arsenic and other materials used in preparing skins, the preparation of a meal at the King Manse involves some skillful and careful selection. It seems that as the observations and study on wildlife in monuments advances that more visitor interest in natural features is noted. Even cursory examination of the reports from the men in the field will reveal the extent to which valuable material is being collected and reported upon. A particularly valuable service will be derived in monuments from study collections as a source of accurate information and identification for permanent and temporary personnel.

ECW Educational Work:

On December 16 and 17, the Park Naturalist attended a conference of ECW educational advisors and representatives of technical agencies held in Albuquerque. This conference resulted in the approval of a very practical plan of vocational training which is to be a part of the ECW program. In order that the Naturalist Division

NATURALIST DIVISION (CONT.)

might cooperate to the fullest extent in organizing and maintaining the program Mr. King has been designated to cooperate with project superintendents and supervisory personnel in the two camps in our district.

Reports on Visitor Contacts:

There has long been a need for getting a closer tabulation of visitor contacts made by personnel over the Southwestern Monuments system as a whole. Reports on the total visitor contacts segregated as to field trips, museum attendance and special lectures are requested of all National Park Service units. Custodians reports in the past have, with the exception of Casa Grande, contained only the number of visitors. Doubtless many special contacts are made which are not included, or which are not clearly described. Memorandum to Custodians No 92 and Stencil No. 16 were prepared and it is believed that starting with January 1936, we shall be able to organize a consolidated report for Southwestern Monuments as a whole which will be as complete as those submitted by other units in the Service.

In the Southwestern Monuments we feel that we are particularly fortunate in our visitor contact work in that practically all of our groups are small; are keenly interested in interpretations of the features of the monuments; and are given personal service, where we have personnel, to a greater degree than is given anywhere in the Park Service. It should follow, therefore, that records, field trips, lectures and museum service can be easily kept at least to the degree of detail requested in the forms. As these reports are received from the field each month the data will be consolidated for the system.

Miscellaneous:

Several days of the month were spent attending to correspondence and in taking care of matters pertaining to personnel. On Friday Afternoon of December 13, the writer gave an illustrated talk on "Arizona's National Monuments" before the Desert Womans Club, Coolidge, with an attendance of 20.

Report of Junior Naturalist Dale S. King:

OFFICE WORK:

Between eight and nine days on November Monthly Report.

Approximately $1\frac{1}{2}$ days cutting stencils and editing information pamphlet for Aztec National Monument.

One day assembling monument Manuals of Information.

NATURALIST DIVISION (CONT.)

Wrote 39 letters.

Classified and filed reprints, periodicals, and miscellaneous material in library.

Considerable time spent in assembling December Report material.

Constructed one new bookcase and re-arranged whole library.

Sent prepared bird banding files to Pipe Spring.

Ordered: preparation materials for Navajo, metal catalog tags.

PLANNING

One half day conferring with Superintendent Pinkley and Resident Architect Langley on architectural details for proposed Bandelier Museum.

Two days on comments on Bandelier exhibit plans.

One half day discussing Bandelier exhibit plans with Custodian Jackson, Naturalist Rose, and Superintendent Pinkley.

MISCELLANEOUS

Two hours of government time on trip to Tucson after palo verde seedlings. Planted seven seedlings in area between Headquarters and Monument buildings and Compound A. This completes the screening project. Three hours.

Report of Jr. Park Naturalist Caywood:

The first part of the month was spent in cataloguing the museum and in public contact work at Casa Grande. Almost all the specimens and exhibits in the museum were catalogued with the exception of one case of shell and clay objects and one case of Papago ceremonial objects. As each museum specimen was catalogued all available data that could be gathered from old files and from Superintendent Pinkley were noted on the card.

From December 6 to 16 inclusive I was away on annual leave which my wife and I spent in Long Beach, California, visiting my grandmother.

After my return to Headquarters, December 17, and in the absence of Naturalist Rose, six letters were written in regard to place names in Southwestern Monuments, and one in answer to inquiry asking for a paragraph of information on each National Monument in Arizona.

NATURALIST DIVISION (CONT.)

A list of place names was made up for Chiricahua National Monument and Casa Grande National Monument which will be submitted to the U. S. Board of Geographers for decision as soon as similar lists are received from the custodians at the other monuments.

On December 21 Winnie and I up-anchored and left for Chaco Canyon National Monument to relieve Custodian Miller while he is on annual leave.

For the remainder of the month I will be holding down the fort at Chaco (see Chaco Canyon Report).

BANDELER E.C.W.

By H. B. Chase, Project Superintendent

Final finish items and general clean-up of the garage and all buildings in the utility area were completed this month. The completion of this area has proven to be the most valuable improvement completed at this camp for its operation.

A small crew has been working on carved signs for this monument all month, these signs to be placed at various points for the information of Monument guests.

Landscape work has taken a large per cent of our crews this month, four crews spending all of their time transplanting trees and shrubs to the area around the utility group, camp ground and the area adjacent to the CCC baseball ground. Two other large crews have completed grading and trimming about half of the road slopes and barrow pits along the roads in the Detached Section.

Considerable road maintenance, opening ditches, drainages structures and resurfacing has been in progress all month.

The rock quarry operation has continued all month quarrying and sizing rock for immediate use in construction of the museum and other buildings.

Construction of the drainage culvert under the residential road was started the 27th and roadway excavation will start immediately.

Finally arrangements were made with the Army with reference to moving barracks No. 1 for the construction of the museum building. This moving operation was started December 27 and to date the bathroom has been moved and all three sections put in shape for the move. We hope to have this move completed within a week to start immediate construction of the museum.

On December 16 and 17 I attended a meeting in Albuquerque with other Southwestern National Monuments personnel, Hugh Miller, and Bob Rose. This meeting was called by Eighth Corps Area Educational Advisor Rogers, and for the purpose of meeting representatives of the technical agencies to formulate plans for carrying on a more extensive vocational training in the camps along with the educational work.

This camp was visited by ECW Auditor Douglas from the Washington office on December 19. Acting Assistant Superintendent Miller from Headquarters met Mr. Douglas here and reviewed findings of his audit and discussed ECW accounting in general. The writer transported Mr. Douglas to Mesa Verde National Park on December 23.

CLOSING

You will see, Chief, that we have had another busy month in the Southwestern Monuments, and I would like again to call your attention to the fact that our headquarters work never slackens. The peak loads in the 25 monuments in this district vary in the individual monuments, but the load at headquarters runs steady due to the fact that as the higher locations slack off the lower ones gain momentum.

We are not uneasy about visitors---we have enough of them in the total and are making no particular efforts to bring more of them to our places. We would like to distribute them better as to hours, days and seasons, for we are not able to take care of peak loads properly at many of our places. We would even like to cut down their numbers if we could devise a screen which would keep out the uninterested ones, but thus far no such screen has been developed.

Our personnel problems, while still serious, are in better shape than at any time in the past. We are yet having to give poor service at some places in the district because we have not enough men, and there is still an acute need at Headquarters for both personnel and money. Of course, we are hoping and expecting that these conditions will be alleviated to a large extent by the 1937 fiscal year appropriation.

We are worried about our present and future needs more along the line of construction than that of personnel, administration, protection or maintenance. We have always been handicapped by lack of buildings and general construction for handling the public. We could not put these into the regular estimates because we were to get them out of the emergency funds. We are not getting enough construction to keep up with our regular growth and we are dubious of the future and our chances of catching up through the regular estimates and appropriations when the emergency funds are expended. This is our outstanding problem at present.

CLOSING (CONT.)

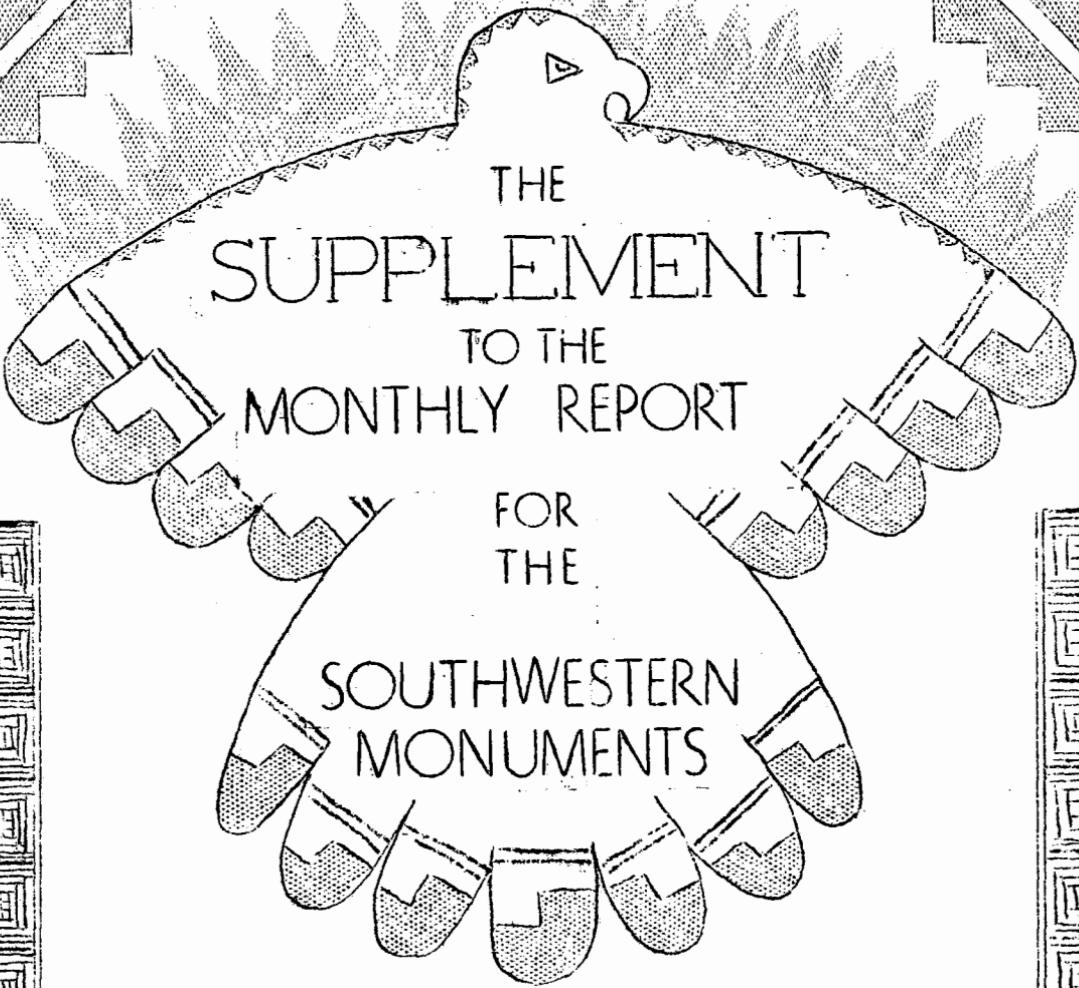
As to our future, we will know within a week or ten days what the budget will bring us for fiscal year 1937 and can begin laying more definite plans for our preliminary estimates for fiscal year 1938 which must soon be submitted. We have already asked the men on the monuments to check their needs and see that nothing is overlooked. This thing of estimating now for money which we will begin to expend a year from the first of next July seems like a long distance forecast in times like these, but we are willing to do our best.

In general, things are going well in our district as we close up the old year and start into 1936.

Cordially,

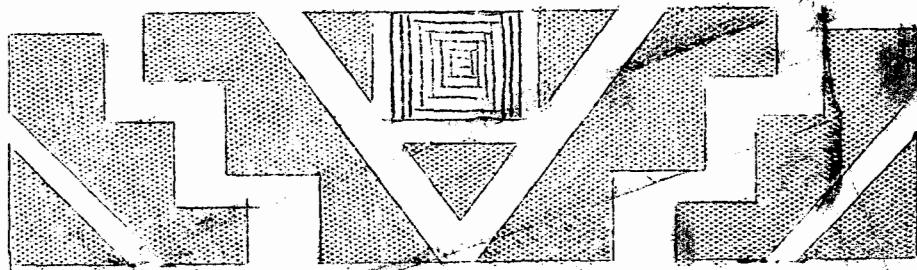
A handwritten signature in cursive script that reads "Frank Pinkley". The signature is written in dark ink and is positioned above the printed name and title.

Frank Pinkley,
Superintendent



THE
SUPPLEMENT
TO THE
MONTHLY REPORT
FOR
THE
SOUTHWESTERN
MONUMENTS

WHERE WE ARE SERIOUS,
-BUT NOT TOO SERIOUS.



THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

RECEIVED

SEVENTEEN YEARS AGO

(Note: Mr. Pinkley's discussion of the Gila Valley elliptical mounds started in his November, 1918, report which was reprinted in the Supplement last month. The discussion continues through his December and January reports. Both are being reprinted this month, since we have received requests for the material.)

Blackwater, Arizona
January 2, 1919.

Dear Mr. Mather:

The following is my report of the general conditions at the Casa Grande Ruin National Monument during the month of December, 1918.

During the month 169 visitors and 85 automobiles entered the reservation. We had one rainy Sunday which cut down our total number of visitors, and, owing to rains, the roads from Phoenix were bad for about ten days during the month.

We are having more rainfall than usual and the general outlook for the range interests in southern Arizona is very good. The through automobile roads from the middle west to California are only in fair condition and, while I am having some visitors who are making the through trip, I am pretty sure the roads are holding up others.

During the month I was absent from Tuesday, December 10 to Friday, December 13, on a trip of inspection to the Tumacacori Mission on behalf of our Service. A report of this trip has been forwarded during the month.

FINANCES:

Income

There has been no income from any source during the month.

Disbursements:

Total expenditures amounted to \$22.50, all for labor under the head of General Protection. Pay roll for this amount is mailed under separate cover. This brings the expenditures so far under our allotment of \$500 (Service letter of September 9,) up to \$298.54, divided as follows:

General Protection -----	\$121.95
Custodian's House -----	68.55
Well -----	108.04

CLEARING UP:

Most of the work this month was clearing up parking and picnic grounds. We now have several places made as pleasant as the desert

SEVENTEEN YEARS AGO (CONT.)

growth will permit, and many parties have already commented very favorably on the change.

My Indian workman took the influenza on the 14th and quit work. I have been unable to get another one and may not do more work for some weeks.

Elliptical Mounds:

In my last monthly report, dated December 2, 1918, I devoted several pages to a special type of mound in which I have become very much interested. If you will refer to that report you will find the arguments, pro and con, concerning the uses of this type of mound, too long to be again detailed here.

Let me here quote some of the closing sentences of that report.

"The above arguments cover the known facts up to the first of last month, but during November I have experimented a little on the elliptical mound between Compounds A. and B. I have sunk some test pits and have determined as a fact that the bottom of the depression in the mound was covered with a Caliche floor, well packed down, and that at least the west side and the north, have sloping Caliche surfaces at least part of the way to the top. I am making a contour map of this mound and intend to sink some further test pits and make this a matter for a special report during December."

During December I was so busy with other work that I could not make up a special report, as I had hoped, so I am enclosing here an account of the work so far accomplished and the data so far gathered on this type of mound.

I am sending with this report rough tracings of the elliptical mound here at the Casa Grande, and one which occurs in the next group of ruins about four miles east of the Casa Grande. These drawings are crude and are subject to slight errors as the instrument I worked with was none too accurate, but if they help to illustrate my descriptions they will have accomplished their purpose.

You will understand that the elliptical mound here at the Casa Grande is about 125 feet by 80 feet between the highest points on the top of the banks, lays north and south, and has a depressed center, the bottom of which is nearly on a level with the general desert outside the mound.

I first sunk a random pit (No. 1 on the plan), to find the formation of the ground. At a depth of about 2.7 feet below the level of

SEVENTEEN YEARS AGO (CONT.)

the ground I found a hard Caliche floor which I could sweep off with a broom. I then sunk another random pit to the north of the center of the mound (No. 2 on the plan) and at about the same distance below the ground level I found a floor. After cleaning out the pits, I leveled across from one to the other and found a difference of less than .1 foot between the two floor levels. I then sunk pit No. 3 and found a floor which checked very well with the other two. Going a little to the northwest, I ran a long pit into the western bank of the mound and went down to the floor line. By this time I had settled in my own mind that this floor sloped upward as it left the center of the mound. In this No. 4 pit I discovered the edge of the floor and found a sloping wall had been built pitching upward from the floor at an angle of about 37 degrees. Next I sunk a pit as nearly as I could estimate where the center of the eastern edge of the floor would fall. Here I found the line where the wall joins the floor in pit No. 5. I then crossed over to the west side and sunk pit No. 6, finding the line on that side without trouble. Next I sunk a pit at the southern end where I supposed the edge of the floor would be and another at the northern end. Here the floor was uncovered without difficulty, but instead of getting the 37 degree side wall, what appears to be long, sloping paths were uncovered. These paths were about two feet wide and might have been used for entrances from the top of the mound to the sloping floor at the bottom.

Having now determined the limits of the floor, I measured to its center and there sunk pit No. 9. Here in the center I found a hard, green stone, measuring about 10 by 14 inches, well bedded down in the Caliche of the floor.

Pits 10 and 11 were next dug to check up the shape of the edge of the floor, and No. 12 was dug to see what might be found near the top of the mound. What seems to be a very well marked floor level was uncovered in pit No. 12, the elevation of this floor being 5.90 feet above the floor at the stone in pit No. 9.

I now feel reasonably sure of the following facts regarding this mound.

1. That it had a floor, not quite elliptical, but very nearly so, measuring 81 feet 8 inches on the longer axis and 46 feet 3 inches on the shorter axis.

2. This floor sloped up from the central point 1.09 feet to the east, 1.47 feet to the south, .87 feet to the west and 1.59 feet to the north edges.

3. A stone was placed in the center of the floor.

4. A side wall pitched upward from this floor on the east and

SEVENTEEN YEARS AGO (CONT.)

west sides at an angle of about 37 degrees, flattening as it ran toward the ends until at the ends it was low enough to form long pathways or passages, possibly for entrance.

5. The long axis of the floor and wall lays, roughly, N. 2 degrees W.

6. The center of the floor is about three feet below the average desert level.

7. Near the top of the mound at the north end there is the appearance of a level floor 5.90 feet above the level of the center of the floor at the stone.

I went up to the first group of mounds to the east of the Casa Grande group and dug five test pits in the elliptical mound of that group. From these pits I gathered the following facts:

1. It had a floor measuring 59 feet 5 inches north to south and 33 feet 3 inches, east to west.

2. This floor sloped up from a central point, .83 feet to the east, .33 feet to the south, .64 feet to the west and .61 feet to the north edges.

3. There was no stone in the center of the floor when I opened a test pit there.

4. A sloping side wall surrounded this floor in the same manner as that at the Casa Grande, and with similar appearance of exits at the north and south.

5. The long axis of the floor and wall lays, roughly, N. 2 degrees W.

6. The center of the floor is about 2.50 feet below the general desert level.

You will note that these two floors are quite different in size and do not measure an even number of feet in any direction. It is rather startling then, to find that they bear some relation to each other in their measurements. Reducing the measurements to inches and putting them in the proportion of the width of the small floor (399) is to the width of the large floor (555) as the length of the small floor (713) is to the length of the large floor, gives us a theoretical length for the large floor of 991 plus inches, and it actually measures 980 inches. The proportion here is too close to be called a coincidence.

SEVENTEEN YEARS AGO (CONT.)

I intend, as soon as possible to check all this data against a third elliptical mound which occurs in a group of ruins about six miles east of the Casa Grande.

I would like to impress upon you the importance of this investigation in the field of archaeology. Mr. Cushing seems to be the only man who was on the right track, and I am unable to find anything he has written about his work on these mounds. Will you have a search made there in Washington for any report he may have made?

Might I suggest that these results of the investigations of this type of mound, so far as they go, offer a very good chance for some National Park Service publicity in the general way of discussion of theories which might be built on what we have found. The imagination can be given a somewhat wider range in an article of this kind than could be allowed to the archaeologist or scientist.

After getting a first flash of publicity for our Service, I would suggest that the matter be turned over to the scientist for complete and detailed investigation.

That the elliptical mound here in the Casa Grande group of ruins should be entirely excavated for the benefit of both the scientist and the layman, strikes every visitor who has examined my test pits. Professor Cummings, the Dean of Archaeology at the University of Arizona, thinks we are on the track of a discovery which will rank high in the field of Southwestern archaeology. Dr. Mason, of the Field Columbian Museum, who was here the other day, said by all means to push this line of investigation. Men like these corroborate what I already felt.

This mound must not, however, be hastily opened and left exposed to the destruction of the elements. An appropriation for roofing and protection must go hand in hand with any appropriation for excavation. This is important and should not be overlooked by our Service. The average scientist simply wants to tear things open and see how they are put together. He isn't much interested in what happens to the field results afterward. It is directly up to our Service to see that the visitor ten years or twenty-five years from now gets as good a look at this mound as the visitor who may happen along just after we open it.

If we would give the permission I think the University of Arizona would open the mound for us, as it is as interesting to them as it is to us to determine its use, but they would not be as interested in its protection as our Service should be. I propose to sound them out along this line and see if they will open it if we will protect it, and then study the cheapest best method of protection. I will then lay the whole proposition before you for your action.

Cordially yours,

Custodian, Casa Grande Ruin

Blackwater, Arizona.

February 1, 1919.

Dear Mr. Mather:

The following is my report on the conditions at the Casa Grande Ruin National Monument for the month of January, 1919.

VISITORS

During the month 344 visitors and 133 automobiles entered the reservation. The weather was mild and pleasant throughout the month and roads were generally in good condition.

I was absent from the reservation from January 6 to January 10 on official business, making a trip to Phoenix, Tucson, and the Tumacacori Mission with Mr. Punchard and Mr. Gleason. A special report of this trip went forward to you under date of January 11.

FINANCES

There has been no income from any source during the month.

Total expenditures for the month amounted to \$59.65. This was divided as follows:

Labor -----	\$18.75
Material -----	35.40
Drayage -----	5.50
Total	<u>\$59.65</u>

Pay rolls for the labor and drayage have gone forward to you for approval. Vouchers for the material are in the mail now for the signature of the payee before being forwarded to you for approval.

This brings our total disbursement of our allotment, (Service letter of September 9, 1918.) of \$500 from the Appropriation for the protection of National Monuments up to \$358.19 on January 31. This sum is divided as follows:

Tools -----	\$ 25.70
Labor -----	202.80
Material -----	115.69
Drayage -----	14.00
Total	<u>\$ 358.19</u>

ELLIPTICAL MOUNDS

In my reports, dated December 2, 1918 and January 2, 1919, I discussed various theories and stated several facts which I had gathered concerning this special type of mound which belongs to the ancient

SEVENTEEN YEARS AGO (CONT.)

civilization of the Gila and Salt River region. Since you can readily refer to these reports I will not again cover the same ground here.

From my test pits on two of these mounds I was able to state that this type of mound has the following characteristics:

1. A floor, not quite elliptical in shape but very nearly so.
2. The floor slopes from its central point to its edges, the maximum rise being about 1.6 feet.
3. A stone is sometimes placed in the center of the floor.
4. A side wall pitches upward from the edges of the floor at an angle of about 37 degrees on the east and west sides, flattening as it runs toward the ends until, at the ends, it has a low enough angle to have been used for entrance and exit.
5. The longer axis of floor and wall bears nearly due north.
6. The center of the floor is depressed below the desert level, but the top of the sloping sides rises several feet above the desert level.

This data was gathered from the mound of this type which occurs in the Casa Grande group and the one which occurs about four miles east of the Casa Grande. Tracings of contour maps of these two mounds were forwarded with my report dated January 2.

During the month of January, I went to the next group of mounds about six miles east of the Casa Grande, and sunk five test pits in the elliptical mound of that group.

We found this mound to be typical in all respects.

We found a fine center stone, which would weigh fifty or sixty pounds, so placed in the floor that it had a flat surface exposed. It was not exactly in the center of the floor according to our measurements but was displaced about five inches to the east.

Upon raising this stone and examining the ground under it we found a small conical type of marine shell and a small bangle of turquoise. We excavated about two feet below the floor surface but found nothing else.

I called attention in my January report on this type of mound to a striking proportion in the length of the axis of the first two I had examined. This proportion fails in this last mound. The floor measures 68 feet 6 inches from north to south and 36 feet, even, from east to west.

SEVENTEEN YEARS AGO (CONT.)

The floor measurements for the three mounds so far examined are as follows:

	North & South	East & West
At Casa Grande-----	81 ft 8 inches	46 ft 3 inches
1st Mound east-----	59 " 5 "	33 " 3 "
2nd Mound east-----	68 " 6 "	36 " 0 "

These figures are subject to slight corrections as it is sometimes difficult to determine the exact point where the wall joins the floor.

I consider the objects found under the central stone in mound number 3 to be offerings, but examination of the centers of the other floors has, so far, revealed no such offerings under either of them.

Mr. Gleason took a picture of this last mound we have examined so if you have received prints of his negatives you may refer to that picture for an idea of the mound before we sunk the test pits.

I think we may consider the preliminary evidence on this type of mound nearly all in, and I would like to urge upon you the value of some publicity for it.

OTHER RESEARCH WORK

I am starting what may prove to be an interesting experiment on an ideal trash mound which lies southeast of Compound B.

One theory of these trash mounds, or those which occur near the Compounds, has it that they are slow accumulation of broken material and that building them up to their present height, as much in some cases as six or seven feet, must have taken centuries. If this theory is true, careful excavation, examination and comparison of the material, foot by foot, might disclose a differentiation in material, workmanship or design of the pottery of the different layers.

So far as I know this experiment has never been tried in the trash mounds of this valley. It will only take some odd hours and might develop something really worth while.

Cordially,

Custodian, Casa Grande Ruin.

Mr. Stepher T. Mather, Director,
The National Park Service,
Department of the Interior,
Washington, D. C.

BANDELIER BIRD NOTES

By Betty Jackson

The new traps have gotten under way. Of course, I can't say much for the Potter trap yet, as it has only caught a mouse. And the Woodpecker trap isn't in a very productive place, because not a bird has entered it.

But the two sparrow traps have done well with the Juncos. 29 of them have been banded so far, and the traps are not yet placed where I want them. The carpenters haven't had time to make tables yet.

Of the 29, 15 have repeated at least once. 21 were either grey-headed (*Junco caniceps*) or Red-backed (*J. dorsalis*, 4 Pink-Sided (*J. mearnsi*) and 4 Shufeldt (*J. oreganus shufeldti*).

But the Jays moved out when the Juncos came, so it is apparent that things could be managed better.

The Ravens are still around, and very noisy. A Rocky Mt. Hairy Woodpecker seems to have taken a liking to the vicinity of our house, but he doesn't seem at all attracted by suet.

Under the lower falls we again saw the Water Ouzel that we saw with Mr. Borell last month, this time with his very nervous mate.

We haven't seen any robins lately, but there may be a few stragglers still around. I did see one Spurred Towhee, and a Townsend Solitaire. The other birds noticed were Bush Tits, Chickadees, a few Brown Creepers, and a Pygmy Nuthatch.

Early in the month a robin and a Jay were startled bathing together in the creek!

SOMETHING ABOUT AWANYU

By Earl Jackson

Awanyu, or Avanyu, is recognized by both the Keres and Tewa Indians as the Bringer of Life, or the Bringer of Water. This goddess held the lives of the agricultural Indians in the palm of her hand, for, being in constant contact with springs and other water sources, she could cause them to give moisture or dry up at will.

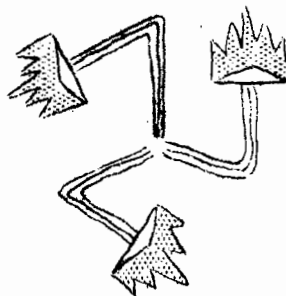
There are many legends about Awanyu. The following symbol is shown in an article written by Dr. E. L. Hewett:*

* "Vengeance of Awanyu," Field Notes of E. L. Hewett. From El Palacio, Volume 2, Number 1, Page 3.

Quoting this author:

"This symbol occurs in several forms on the ancient pottery of the Pajarito Park. It dominates the symbolism of the entire district.

----In one of its most prevalent forms it reminds one of the ancient triskelion of the Greeks.



"The symbol is a highly conventionalized emblem of the god Avanyu, one of the major deities of the ancient cliff people of the Pajarito. This deity was the antecessor of the 'Plumed Serpent' of the Pueblo Indians of the present day, the latter being of comparatively recent intrusion in the Rio Grande Valley (last four or five hundred years). The former symbol is much more archaic, hundreds of years older, and appears to have passed out of use with the abandonment of the great houses of the Pajarito."

Again he says, "What is seen in the pottery symbols referred to are the prayer plumes of the deity. The prayer plume is not a representation, but rather the symbol of the god Avanyu."

Indian legends today tell us that the reason their ancestors had to leave the Pajarito Plateau and Frijoles Canyon was that they incurred the displeasure of Avanyu, and in his* wrath he left in a hurry. He blazed his path across the heavens, and thus we have the Milky Way marking his route.

When Dr. Hewett started the revival of pottery making among the San Ildefonso Indians twelve years ago, they started using several designs found in ancient cliff dwellings. One of the designs most widely used is an adaptation of the Plumed Serpent motif found at Tsirege, 14 miles northeast of Frijoles Canyon. Serpent designs similar to it have been found in the caves of the Rito. The simplest depiction of this design is as follows:



* References to sex of Indian deities are always vague and frequently inconsistent.

ONCE UPON A TIME *

By Hector Aliot

"Once upon a time," said Old Ayacete, "Our people lived in Tyuonyi** before they came here, and it happened this way:

"Once moonlight night, Tiowa, the daughter of the High Priest, was seated on the edge of the cliff dwelling, where the sun emblem is engraved over the door;*** she was listening to the song of Haatse, standing below, when a winged figure passed over the face of the cliff and embraced the maiden. Swift as the lightning Haatse seized his bow and a well directed arrow brought down his winged rival.

To his horror, he discovered that he had killed Kutho, the dog, messenger of the Cloud Gods, who gathered their clan and descended into the Valley of Tyuonyi, and amidst deep lamentations elevated the form of Kutho to the great blue plans of Olibbi, the home of the wind.

In punishment for his crime, the Gods took away as hostage from our people, Awanyu, the water mother.

The streams of Tyuonyi began to dry, and so did those of Kathet-yam, our people deserted one valley after another but finally reached Cochiti, exhausted and dying of thirst.

It was in the time when the beasts of the field talked mantalk, and our people conversed with birds and trees like they do with one another today.

But they all recognized as chief my father of long ago, Tyuon-Tyuonyi, the Great Chief of the Great People, and they came to him for advice. The fishes had long since died in the pools; the birds, the wolves, the deer and many others gathered about Tyuon.

What to do in such a plight, was asked of each in turn. "Awanyu lives in the world below, send the Mole to her that her prayers may be heard at the Altar of the Wind God," said the Owl.**** And the Mole disappeared on his errand of mercy. "Send the Black Eagle in quest of her, Our Mother," interrupted the Beaver. And the Black Eagle soared in the skies while Tyuon sat in silence, waiting for the messages of the Mole and the Eagle.

* "El Palacio," Volume 1, Number 1, Page 4. By permission.

** Cochiti name for Frijoles Canyon.

*** Supposedly the Sun House of today.

**** Awanyu is the Bringer of Storms, and is depicted in petroglyphic art as the Plumed Serpent.

Meanwhile, the Wasp-Mother buzzed around, annoying everybody, foolishly flying about. Being very small, she could find enough water for her wants in the small, muddy pools. But when the Turtle people came out of the last marshes to interview Tyuon, the last water of Tyuonyi has disappeared. The Wasp Mother, however, tied a blade of grass around her waist, squeezed as some other white wasps still do today, and continued to pester the dying assembly so that they all wished that the Wasp-Mother might be stricken dead first of all the people.

No news had been received from the Mole; lost, no doubt, in the hard earth, nor from the Eagle; the Birds were dying and so were the deer. "Tyuon," said the Turtle-Mother, "why not send Coyote, who is the cousin of Awanyu, to discover her and bring her back to our dying people?" "Coyote, of course," exclaimed Tyuon, "should have been our messenger," and this forlorn hope was dispatched.

For three days and three nights Coyote ran toward the setting sun. In the faraway mountains he discovered a camp of the Cloud dogs, and in a cave nearby, Awanyu, her cousin, kept prisoner by the Cloud dogs.

After two days of pleading, her prayers were at last heard by Awanyu, who raising to her breasts a beautiful basket she had just finished weaving, handed it to Coyote. "Go and bring to my children the Living Water," said she, "that they may live, till the Kutho clan can be assembled and brought to my beloved Tyuonyi."

But the Wind God and myself feel that our people should make everlasting penance for this awful slaying of Kutho -- the clan demands it.

The Wasp-Mother has certainly shown no regret for the crime of the Tyuonyi people, because they are all jointly responsible for the mistake of Haatse.

"Let her be forever punished in memory of this great drought, that the wicked seeing her waist nearly cut in two, may remember the dire cost of killing a Cloud Dog."

And this is why to this day, the Rito Wasps have the smallest waists.

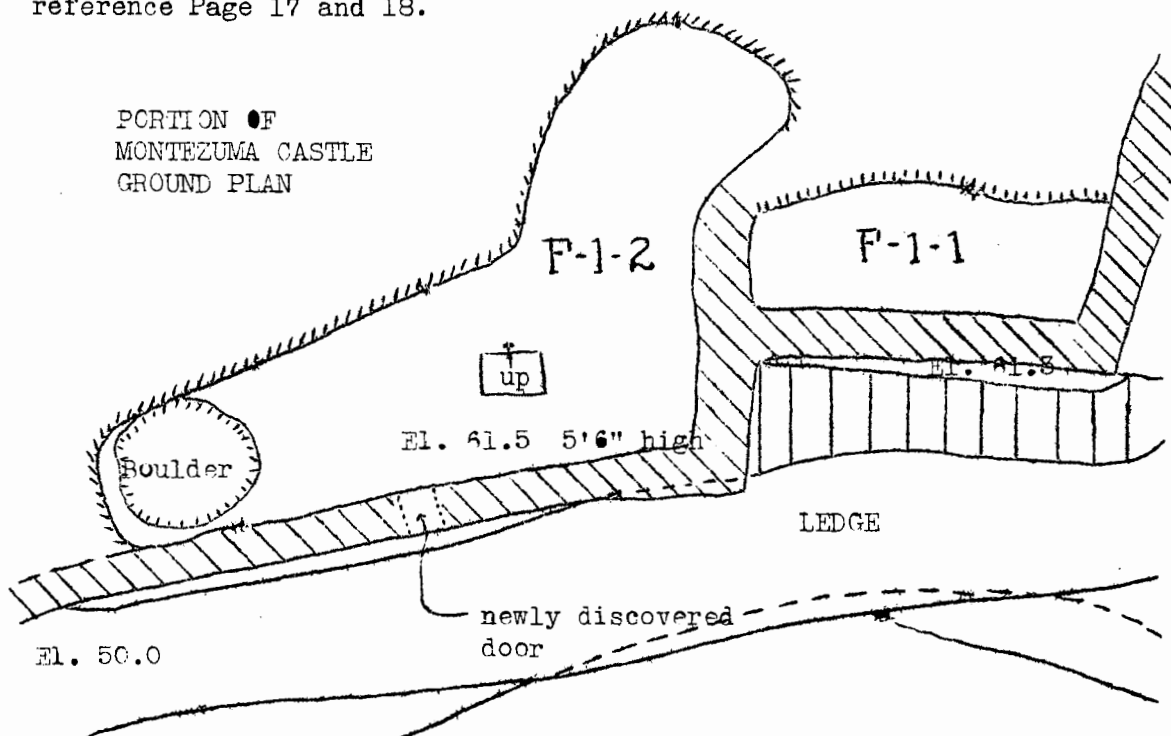
HIDDEN DOOR AT CASTLE

By Betty Jackson

When visiting Montezuma Castle at Christmas, Earl took me through the ruin. In room F-1-2 we discovered a blocked up doorway which had not previously been noticed. (See Frank Pinkley's "Montezuma's Castle.")

HIDDEN DOOR AT MONTEZUMA (CONT.)

Mr. Pinkley states in "Montezuma's Castle," "the room has no method of lighting other than the hatchway which opens into the semi-darkened room above and it must have been very dark, yet the walls and roof are smoke blackened and we assume it to have been a living room." (See same reference Page 17 and 18.



This doorway was in the south wall, about in the middle though nearer the east end, and may possibly have been the original entrance. It was filled up and covered by a mud facing. The wall has now dried and cracked so that the mud has peeled away from the joint, revealing it.

It, therefore, seems reasonable that, as Mr. Pinkley states, it was a living room, rather than a storage room or "Dungeon" as it is facetiously called.

This is a most interesting find and proves the point we have often mentioned, that an outsider with an absolutely new view point can see things which we old timers have been overlooking all these years.

This F-1-2 room is interesting to Mr. Jackson, Earl and myself because we had the fun of cleaning the debris out and making the first studies on it several years ago and Earl and I have just been talking over those old days. We all had light cases of dust fever while working in it and we unintentionally gave an Indian a pretty heavy case.

HIDDEN DOOR AT MONTEZUMA (CONTINUED)

I had told him to work only a little while at a time and then come up on top and get some good air and rest. Being occupied otherwise I did not watch him closely enough and he worked too long in the dust. It knocked him out for a couple of days.

I wouldn't be surprised if this sealed doorway which Betty has found at one time was the main entrance to the Castle, and I wish we knew the story which must lie back of its closure.

You may think it was pretty dumb of us not to see it before, but I'm not much surprised. This isn't the first time I've been caught this way, and I've often suspected that Jack is nearly as dumb as I am,--and here's the proof of it at last.

Frank Pinkley

COMMENTS ON PROPOSED MUSEUM EXHIBITS PLAN AT BANDELIER

By Dale S. King, Jr. Park Naturalist

On December 12, 1935, was issued a Museum Exhibits Plan for the proposed museum at Bandelier National Monument. This plan was prepared by Park Naturalist Rose upon instructions from Superintendent Frank Pinkley.

The plan was sent to all Southwestern personnel and other interested persons for suggestions and criticisms. The following comments are submitted in accordance with that invitation.

FORMATIVE STAGES OF THE PLAN

For the Supplement to the August Report, 1934, Custodian Earl Jackson put twelve key questions which the proposed museum at Bandelier should answer. These questions had been formulated in answer to a request from Park Naturalist Rose. Custodian Jackson followed these questions the next month with a carefully considered museum plan which detailed number of rooms and the subjects that should be treated in each.

In October, 1934, Park Naturalist Rose, after a consultation with Custodian Jackson and Museum Technician Louis Schellbach, submitted a revised plan incorporating the discussions and suggestions.

Preliminary architectural studies were released in the November Supplement, 1934, by Jared Morse, who made the first study for the building itself. With several minor changes, the first architectural plans have been followed in present approved plans.

Early in November, 1935, when it became known that construction

of a portion of the building might take place, a short conference at Bandelier was held by Custodian Jackson, Museum Technician Woodward, Museum Architect Miller, and Junior Naturalist King.

The group kept in mind the following inhibitory factors: (1) Only three of the five proposed exhibit rooms and one work room could be built at the present time; (2) few prehistoric artifacts from the area are in possession of the National Park Service and available for exhibition; (3) museum arrangements must be kept supple that new excavations, recognition of new cultural complexes in the prehistoric story, or acquisition of further material might find the museum in such an adaptable and fluid state that rearrangement would be easily accomplished; (4) certain exhibits must be planned to fit the proposed three rooms, and must be capable of insertion in the enlarged scheme when all five rooms are completed.

Superintendent Pinkley has long argued against "fixed" or "frozen" archeological museums. For numerous reasons, the group found itself in agreement. To implement this principle, the group finally agreed on wall display cases with movable backs, so that width, depth, and height of any desired exhibit could be controlled absolutely. It was further decided that every case should be at least three feet deep to allow for dioramas and large objects wherever needed. Mr. Woodward has advocated deep wall cases with movable backs at least since January, 1935, to my knowledge, and probably much longer.

It was further decided that since there was little archeological material to exhibit in the museum, major stress should be laid upon Pueblo V, with special emphasis upon the intensely interesting pueblos whose legends indicate derivation from the Bandelier region. At least one of the three rooms should be devoted to this subject. It was also thought that Pueblo IV deserved at least a room although exhibits would necessarily be confined to architecture and "made" displays, since we have little of the old to show. The small "Lobby" room could be devoted to presentation of various phases of several subjects -- Geology, Flora, Fauna, History, etc.---it was believed.

RANDOM SUGGESTIONS CONCERNING THE PLAN

Page 2---Community surface pueblos such as Tyuonyi and Tsankawi are omitted in the list of educational features of Bandelier.

Page 3---The Stone Lions, Tsankawi, and probably other isolated sites should be included in locations which should be studied as possible sites for trailsides.

Page 5---The area above Ceremonial Cave is not now a Primitive Area as stated, although, certainly, certain large portions of Bandelier should be studied with reference to the possibility of making them

Primitive Areas.

Page 6---Last paragraph states that three exhibit rooms will be constructed but omits any reference to the proposed work room which supposedly will be built at the same time as the other three.

This work room should have been considered as a part of the plan because eventually it will form a distinct portion of the museum unit. It should be studied by the Custodian, the Southwestern Monuments Educational Staff, and the Field Division of Education to include best arrangement of (1) dark room, (2) sinks, (3) work bench, tool chests, and vise, (4) fumigating cabinet, (5) storage cases, (6) drying trays and presses, (6) lighting, etc. It is quite possible that some fixtures might be installed during the present program.

Page 8---Exhibit I. I see no justification to waste eight feet of wall space on a large map of the National Parks and Monuments in the United States and Territorial Possessions. There certainly is not enough space in the proposed three rooms for all archeological exhibits we can foresee at the present time. Even if the exhibit would find a place in the future museum at Bandelier, I think it would be a great deal better received if restricted to southwestern parks and monuments. Greater detail could then be included. I think there is little need to toot the National Park Service horn. The prime interest at Bandelier is Archeology....the painting of the Washburn-Langford-Doane party, which was suggested, probably belongs more properly to Yellowstone.

Page 9---The second half of Exhibit I is a "Bandelier Vicinity Map." This map could very well be combined with the "Archeological Sites in Pajarito Plateau Area" shown on page 18, and with the "Rio Grande Area Showing Inhabited Pueblos" on page 26. Moreover, there is now under construction at Berkeley a relief model of Bandelier National Monument. The four above-mentioned maps, plus maps necessary to show waves of migration into the region, plus various other comparative and distributional maps which become necessary in sundry exhibits, would make the Bandelier museum just a little pimply with maps.

Page 11---A possibly different treatment could be used here. Since Spanish explorations succeeded in missing Bandelier for an exceedingly long time it might be better to preserve only a brief outline and map of Spanish exploration and throw the remainder of the Spanish portion of the case into explanation of the Spanish impact on Pueblo culture--changes in dress, religion, material culture, etc., being careful not to duplicate certain of those subjects which will be treated in the Pueblo V or Ethnology Room.

Reasons for the name Bandelier will occupy a sizeable part of the American History case. Visitors will probably be less interested

in Bandelier's photo then in his accomplishments in the field of science, and the very human story of his life in Frijoles Canyon and among the Pueblo Indians. Likewise, visitors would be more interested in the books Lummis wrote and the phrases he coined than in his photo.

A Bandelier subject would be more fitting for a diorama than either of the two mentioned by the plan: (1) scene from Pueblo Revolt of 1680; (2) Santa Fe in Early Days).

Page 14---Since our Natural History space is so limited, it might be possible to supplement the case with pressed herbarium specimens in a Multiplex display affixed to the wall somewhere between the fireplace and the Natural History case.

Page 18---The Tyuonyi model and diorama in one room would be useless duplication.

There is little difference, if any, between a Cavate Dwelling and a Dwelling at Bandelier, I believe.

It would be highly difficult to make a restoration model of Tsankawi and a model of its present condition would show little, since the ruin is unexcavated. Perhaps photographs and sketches would be better.

It seems to me the primary comparison of the case is wrong--- rather than comparing various Rio Grande ruins with each other, it would be better to compare Pueblo IV (Rio Grande) styles of architecture with their chronological predecessors, wherever found. Since the museum space is small at Bandelier it was the intention to eliminate temporarily the chronological approach as used at Wayside Museum at Grand Canyon and at Mesa Verde. To do away with this "lead-up" material is awkward at best, and one of the few places where we gracefully can tie back into earlier periods is in this comparative architecture case.

Rather than the models as outlined, I would suggest a series of models, supplement by drawings, showing the evolution of Pueblo houses from Basket Maker times to today. Then a series of drawings and photos would show the three or four types of Pajaritan Pueblo IV houses---cavate, community, etc. This would bring in Puye and other ruins. A final series would show comparisons between Pajaritan houses and those during Pueblo IV in other parts of the Southwest---Little Colorado, Chihuahua, Gila Valley, Etc.

Since there is a full-sized reconstruction of a Talus House to be seen on the regular ruins trip, there is no need for a model of that type of house, but a large reconstruction model of Tyuonyi would be an extremely valuable addition to the Museum. I think it should be placed on a table in the center of the room and not put in a wall

case. It should be large enough so that small human figures could be shown at daily tasks---making pottery, cutting wood, cooking, etc.

The space gained in the wall case by eliminating large models might be used for a fairly large model and detail drawings of a kiva of the region. The subject of Pueblo religion is going to be discussed quite fully in the next room, and here is a good chance to lay the groundwork so that visitors will be convinced there is a factual basis for ascribing to the ancients religious customs which are practiced today.

Page 20---This case layout calls for more prehistoric pottery than can be obtained at the present time, it appears. Objects other than ceramics, such as bone, stone, and shell, have not been mentioned in the stratigraphic exhibit. Since the latter part of these suggestions will include a new proposed layout, it is not necessary at this place to go further into detail concerning this case.

Page 26---There is much modern Pueblo material on exhibit in Santa Fe, Albuquerque, and other points in the region. For the Bandelier Museum to be outstanding, it must treat the Rio Grande Pueblos in a brief general way and concentrate on the pueblos which claim Bandelier as their ancient home---Cochiti, San Ildefonso, and possibly Santa Clara and others. These must be portrayed in a complete, well-rounded manner, with much more emphasis on handicraft than is shown in the plan.

Page 27---Exhibit II should also show the present diversification and change in pueblo art....the new wares being experimented with....the copying of styles from other pueblos and other peoples.

Page 30---An ethnobotanical exhibit will be difficult to make interesting. It should, however, be used in a modified form, but something must be said about uses of animal products also. Stress probably should be laid on the adaptation of the Indian to his environment.

Page 32---All paintings of Cochiti, San Ildefonso, or Santa Clara dances which are included in the Sezwecki reproductions should be purchased and placed in the case on Ceremonials and Customs. Other watercolors and paintings can doubtless be obtained to complete a fine exhibit.

SUGGESTED RE-ARRANGEMENT AND CHANGES

It is difficult to make criticisms of this nature with limited time for preparation. If the critic disagrees with some portion of the plan, he must first prove the portion is incomplete or erroneous. Then he must submit a better idea---and that takes time and research.

Hurriedly, however, there have been thrown together a suggested re-arrangement of the three rooms (See Plate 1), which will be found

BANDELIER MUSEUM (CONT.)

on a succeeding page, and several rough sketches of exhibits which might prove more valuable than the exhibits eliminated from the original plan. They need infinite polishing---it is comparatively easy to decide how much space should be given to each subject---the difficulty comes when details of what to put in the space are reached.

"Temporary Lobby" (We should not speak, as does the plan, of the word "lobby" at the present. There is no space in the proposed three rooms for a lobby, so let us forget the word until we get the complete building.)

Exhibit I---To be deleted completely. Suggestions:

Orientation Maps. Six lineal feet of wall space. See Plate 2.

- Small map showing North American food areas to introduce the visitor to types of Indian life in North America.
- Small map showing Southwestern Culture Areas to acquaint him with the fact that in different sections of the Southwest the ancient people developed specializations due to isolation.
- Small map showing Rio Grande drainage to show Bandelier's relationship to its cultural area.
- Large map of north central New Mexico to show (1) principal archeological sites, (2) occupied pueblos, (3) principal topographic features, (4) some modern towns and roads for orientation. This map to be in colors, approximately $3\frac{1}{2}$ by 4 feet, and to include the territory north to Taos, south to Los Lunas, west to Jemez, east to Las Vegas. This will include almost all Rio Grande pueblos, and will be large enough to allow much detail.

Physical Type. Four and one half lineal feet. See Plate 3.

- Preferably a full size wax or plaster male figure clothed in breech clout, sandals, jewelry, and possibly blanket of the prehistoric type. Equipped with agricultural tools or with weapons.
- At least two skulls, Norma Facialis and Norma Lateralis, with labels and detail sketches to show why scientists know Pajaritans were Mongoloid, had hard cradle boards, etc.
- One skull, Norma Basalis, to show mastoid processes, and explanation of cranial differences which enable scientists to tell sex from skeletons.

BANDELIER MUSEUM (CONT.)

---Long bones, with labels showing relationship between length of long bones and stature. Diagrams showing comparison of Pajaritan stature with world average, U. S. average, Plains average, and enemy Athapascan average.

---A complete burial, if obtainable.

---Stress all through the exhibit that inhabitants of Frijoles Canyon were asiatic in origin, were ancestors to modern Rio Grande Indians and looked like them, were medium in stature, were afflicted with many diseases which attack us. Try to make the Pajaritan a human being and not a freak.

Stratigraphy. Six lineal feet. See Plate 4.

---Idealized cross-section through a midden which was begun in BmIII times. The BmIII trash overlaid by a water washed sterile deposit of clay, and then a Pueblo I slab house cut through it. After abandonment of the Pueblo I house, successive occupations deposited other layers above.

---Above the cross-section which will utilize actual sherds, stone, shell and textile, will be a small diagram of an occupation site on the edge of a small mesa. It will show how the inhabitants would throw their trash over the edge of the mesa and accumulate just such a midden as is shown partially below.

---In remaining space will be diagrammatic drawings portraying how archeologists trench middens which have accumulated in different fashions.

---Labels will tell how archeologists can detect developments and sequences of material culture by examining ancient "city dumps."

"Temporary Lobby" Exhibits II (Spanish & American History) and III (Geology and Natural History).

Criticism has been given previously.

Bandelier Archeology Room: Suggested Sequence. See Plate I.

Dendrochronology. Six feet of lineal wall space. See Plate 5.

---This case to be prepared with the work of Douglass and Stallings as a basis. To be worked out in much less complicated fashion than the one at Mesa Verde, yet complete enough to tell the full story. This is no easy job, and it is not in the scope of these suggestions to start it.

---Interesting would be a small sliding panel with handle by means of which the visitor could attempt to date a ruin himself. A fragmentary skeleton plot from a beam would be marked on the panel and if slid to the right position, would coincide with the master plot.

---On the left margin of the case and extending into the next case will be the "Pottery Family Tree," and the skelton plot will serve excellently to tie the two together.

"Pottery Family Tree": Six and one half lineal feet. See Plate 6.

---This case to be based on Dr. Mera's excellent paper "Ceramic Clues to the Prehistory of North Central New Mexico." Actual ceramic specimens to be used where space permits, and full series of sherds to be shown against the various stems and branches. Labels will explain how, with the help of stratigraphy and tree ring dating, scientists can work out the sequences of pottery and other artifacts and thus date fairly accurately other ruins which yield no timber. If the genealogical tree becomes unwieldy, stress should be laid on those lines which culminate in Tewa Polychrome, for Tewa Polychrome will be treated extensively in the Ethnology Room.

Waves of Migration: From Where Did the Pajaritans Come? Six lineal feet. See Plate 7.

---Very few Southwestern Monument museums built in the near future are likely to have such a helpful paper as Dr. Mera's "Ceramic Clues to the Prehistory of North Central New Mexico." This and other reference works were neglected in the original plan, but should be used wherever possible.

Maps 1, 2, 3, and 5 of Dr. Mera's paper contain excellent material for showing where influences originated which developed into cultures found at Bandelier. These maps, somewhat simplified, drawn in color, accompanied by descriptive labels and small diagrams showing routes of migration, will serve to show where Pajaritans came from, what cultures influenced them, and how it is possible to guess at language spoken in some localities in prehistoric times. The last point should be stressed particularly.

Other exhibits in the remainder of the Archeology and Ethnology Rooms have been criticized sketchily previously. Plate I shows approximate weighting I would place on each subject.

GENERAL COMMENTS ON THE PLAN

At the present writing it appears that the proposed three rooms will be built without windows or skylights. So much the better, for neither have place in an archeological museum. Difficulties connected with display, proper lighting, and preservation of valuable exhibits preclude their use. If necessary, I should go on record as favoring a museum at Bandelier lighted by a flashlight until electricity can be procured rather than allowing skylights to ruin valuable exhibits and windows to do the same, plus pre-empting valuable space.

It is almost needless to mention that windows are acceptable, even obligatory, in the work room.

The plan places every diorama in a corner. Such places are acceptable in case of emergency, but are far from optimum locations.

Thus far, all parties concerned with the plan have calmly accepted the fact that all material should be placed under glass. For the present I agree, for I feel that it probably will be a hard task to get cases, and we may as well procure as many as possibly quickly. Most of the material to be exhibited in the three rooms will need protection, but at some later date I believe that we will want to place certain exhibits in the open, to be handled, used, and examined by visitors. Stone axes, reconstructions such as wooden tools, some types of ceramic objects, etc., when very sturdy and very easily replaceable, gain intensely in interest when the visitor is actually allowed to touch them.

We seem to have persons in this museum discussion game who think that the human animal gains impressions only from his eyes; others from his ears. Why not use the tactile sense also? Some day a certain modicum of open cases will be used in every monument museum--- which is a point advocated by Superintendent Pinkley for a long time.

Nothing in these suggestions is to be construed that the museum is to be self-operating exclusively. With present inadequate personnel, it must act so for a time, and must be used as a gathering or waiting place. But when personnel is available for a museum attendant, parties there should be accompanied if they so desire. Results are such that they can be obtained in no other way. I see no reason why a museum with labels will not be perfectly suitable for conducted trips as well as unconducted ones.

Personally, I favor wall cases at least three feet deep with movable backs so that they can be altered to suit new conditions. I'd ask for cases five feet deep if I were not afraid of being wasteful of expensive space. Our museums must be kept adaptable to new conditions, and in no field is this so true as in the southwestern

archeological area. Important facts frequently become relegated to a back shelf by new discoveries. A curator never knows when someone will start a new excavation and swamp the museum with new material or else throw such interesting light on a new problem that much former exhibit material must be re-arranged or replaced.

2 AMX ! Before any specific case for the new museum can be constructed, questions of color scheme, label type, backgrounds, and borders must be settled. At the present rate, all western park and monument museums bid fair to become stereotyped. Maps are always done in brown, monkscloth backgrounds are almost universal, borders follow the same pattern.

In order to give visitors a true picture of each monument in relation to the rest of the Southwest a certain amount of duplication is necessary in our museums. If has already been decided definitely that we avoid as much duplication as possible by giving each similar subject a different treatment in each museum. It is my idea that elimination of duplication might well start with such basic things as color scheme, borders, and backgrounds. Even such details as family of type used in printing might be varied somewhat---Bandelier to have Cheltenham labels, Tumacacori Goudy, Casa Grande Caslon, etc.

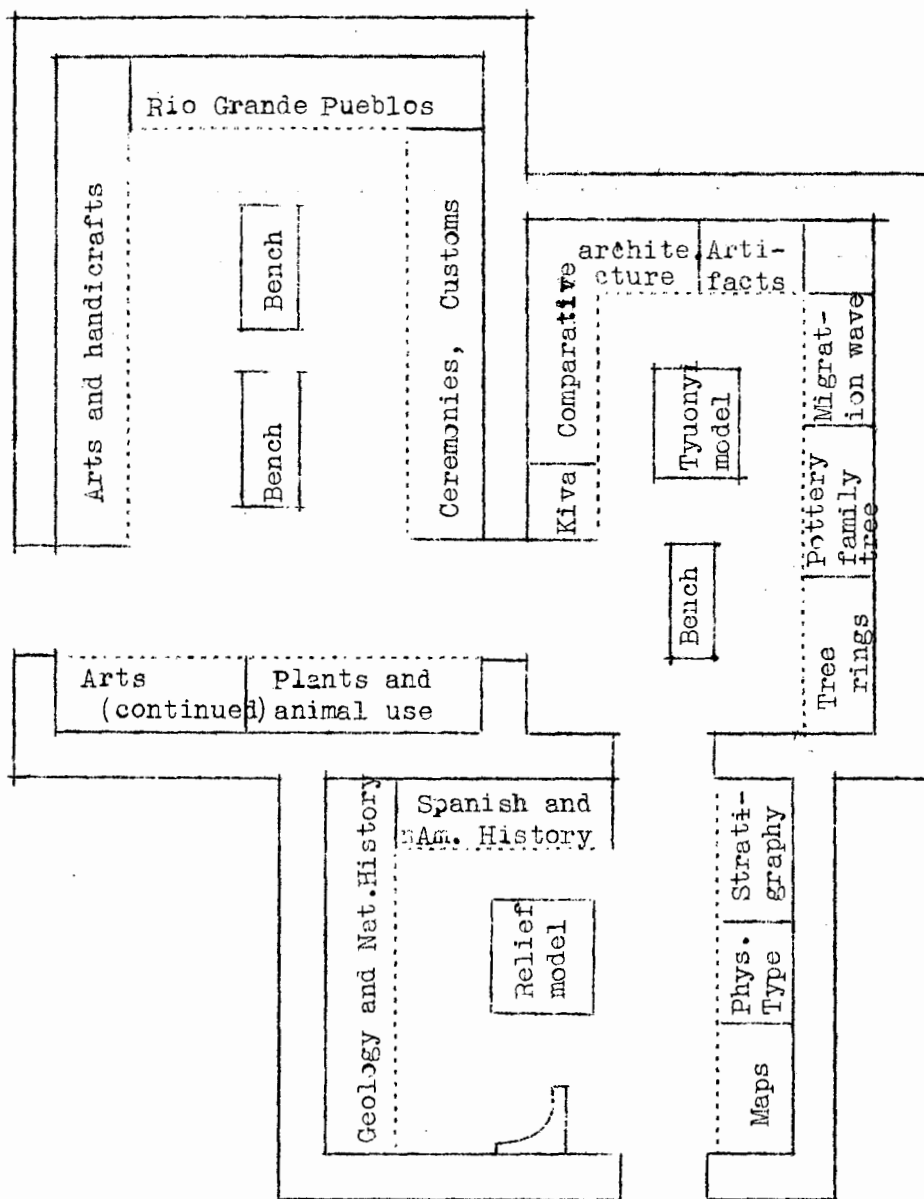
It would be well to use Celotex backgrounds at Bandelier. Various textures can be obtained, the material is relatively cheap, and it is not so subject to fading as is monkscloth. Custodian Jackson might well consult a competent artist and develop a color scheme which will show off the typical pottery of the region to the best advantage. Thus, the general tone of the museum would be the neutral celotex gray, heightened in strategic places by richly colored velvet or other backgrounds to show off superlative pottery or other specimens. Maps might depart from the monotonous tan by having the predominant color a greenish gray, a soft lavender, or some other shade which will be used uniformly throughout the exhibits. Some colors of the kind are almost as effective against eyestrain as the usual brown.

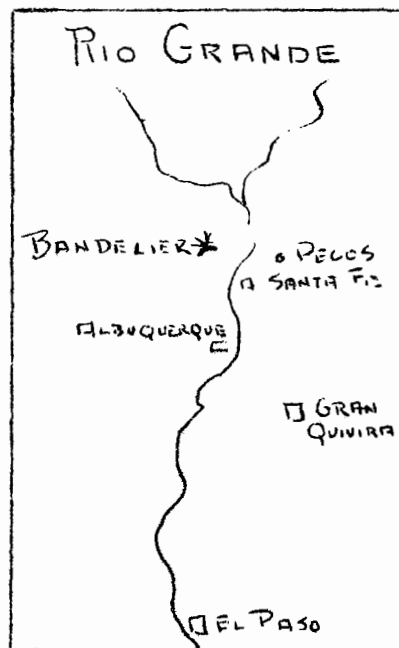
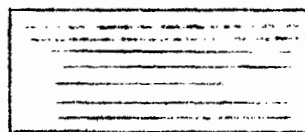
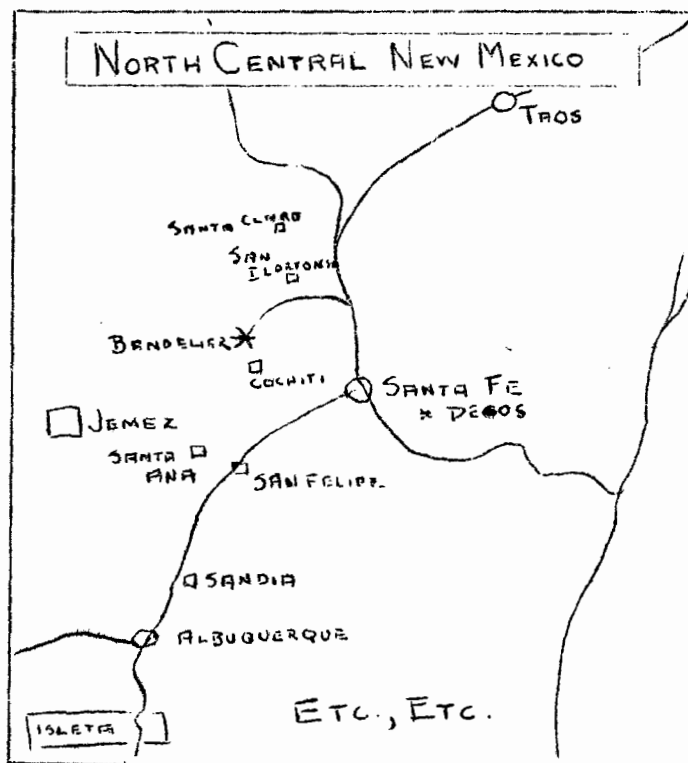
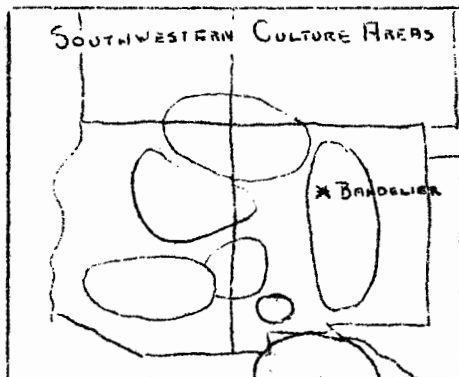
Almost every map or drawing has a border. Simple borders are best, of course, but if a fairly large border is required, nothing could be more fitting than some of the simpler geometric border designs originated by the Pajaritans themselves. A good artist can make these effective and keep them from being too glaring.

In other words, I hope we make the Bandelier museum completely distinctive in itself and entirely representative of its area and the colorful heritage of the region. We ought to go out of our way to employ some usable technique, treatment, or development which is peculiar to the region. Museum interiors as well as exteriors should conform to the atmosphere of their environment.

PLATE 1

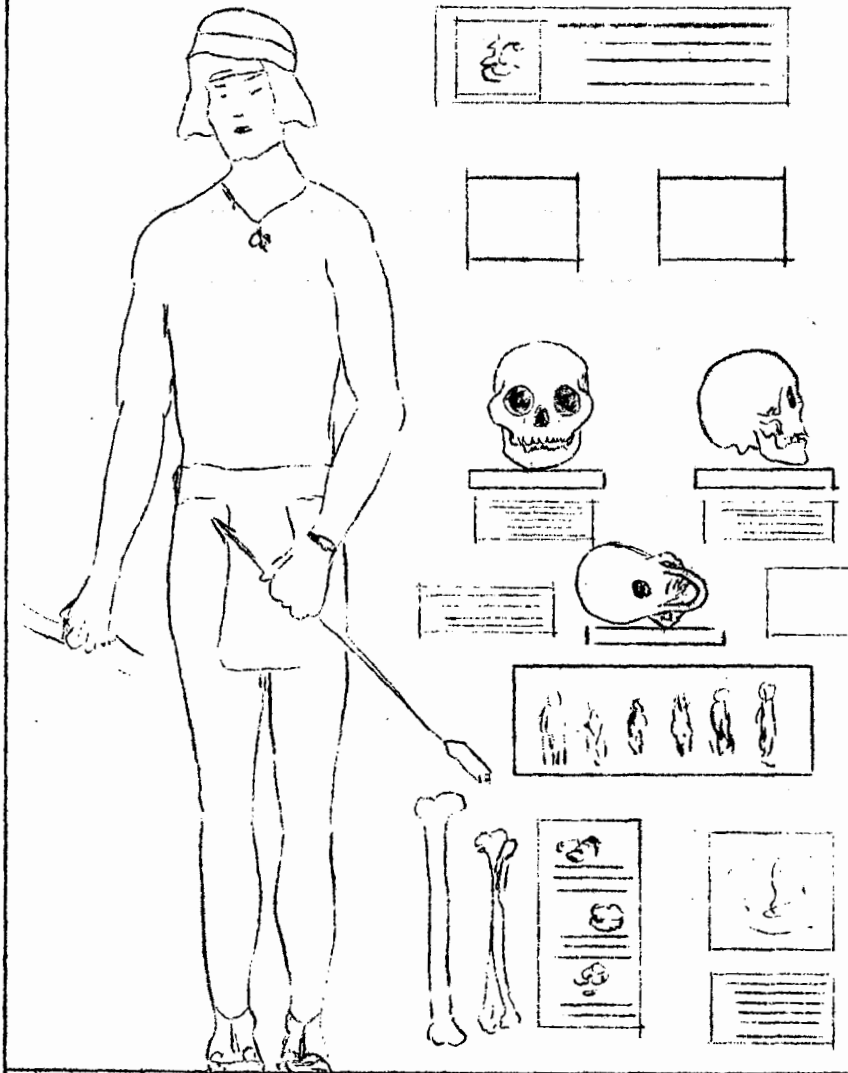
(Note: Custodian Jackson, in a conference with Naturalists Rose and King and Superintendent Pinkley December 29, 1935, suggested certain slight changes in sequence of the "Artifacts", "Kivas", and "Ceremonies" cases. These changes have been incorporated in the plan below, and will make the connection between Pueblo IV and Pueblo V rooms more logical, it is believed.)

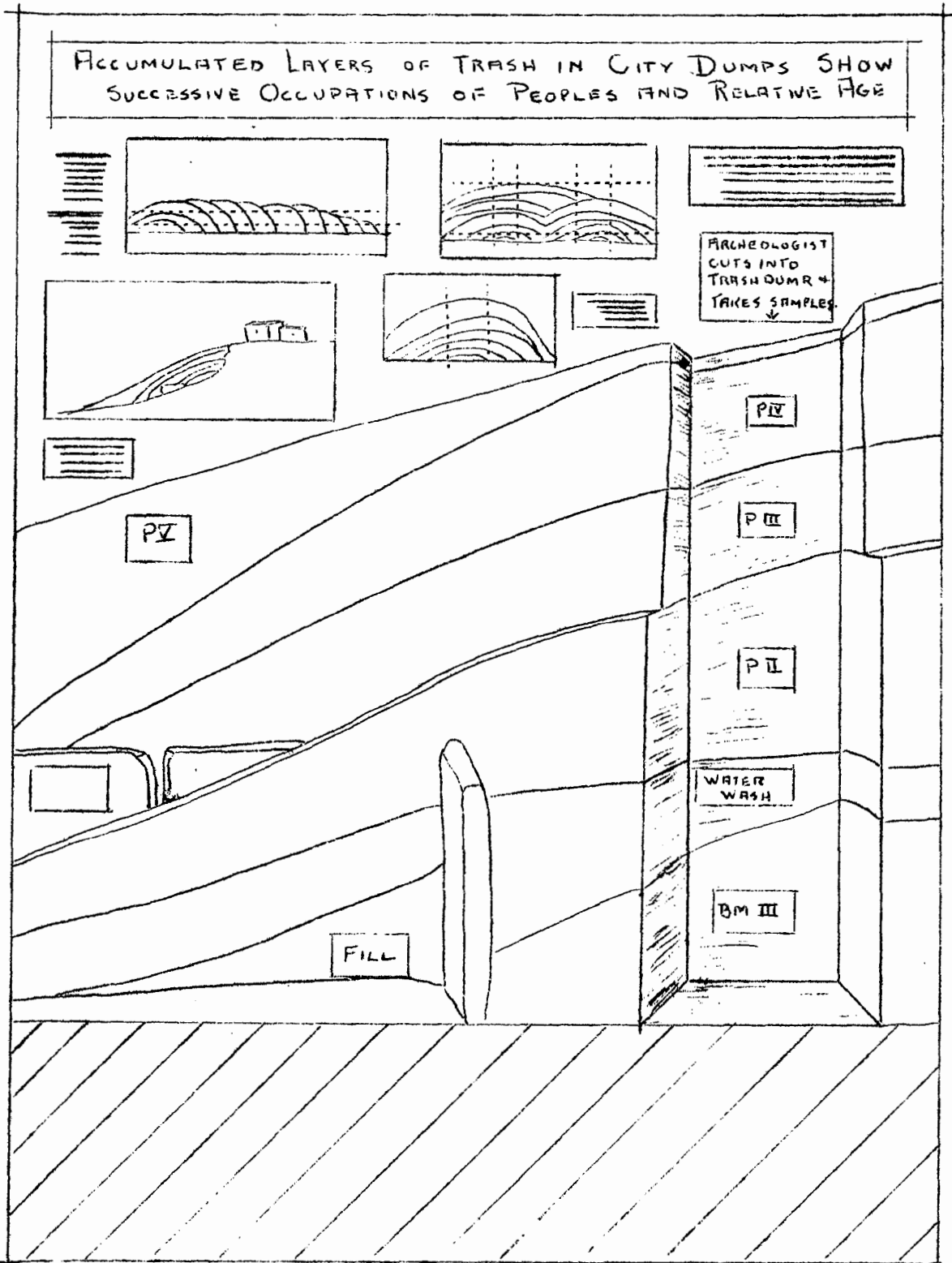


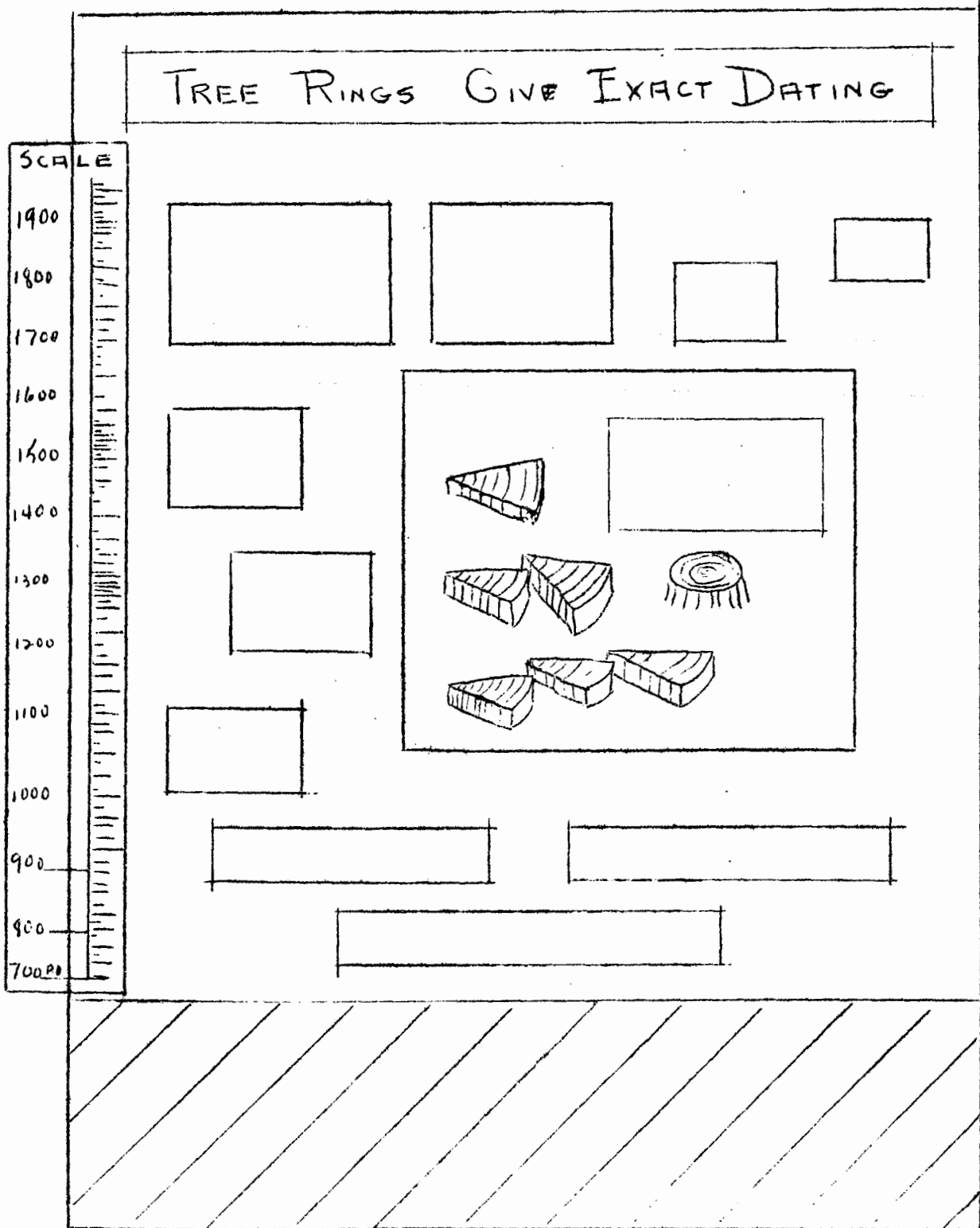


SCALE 0 1 2 3 4 FEET

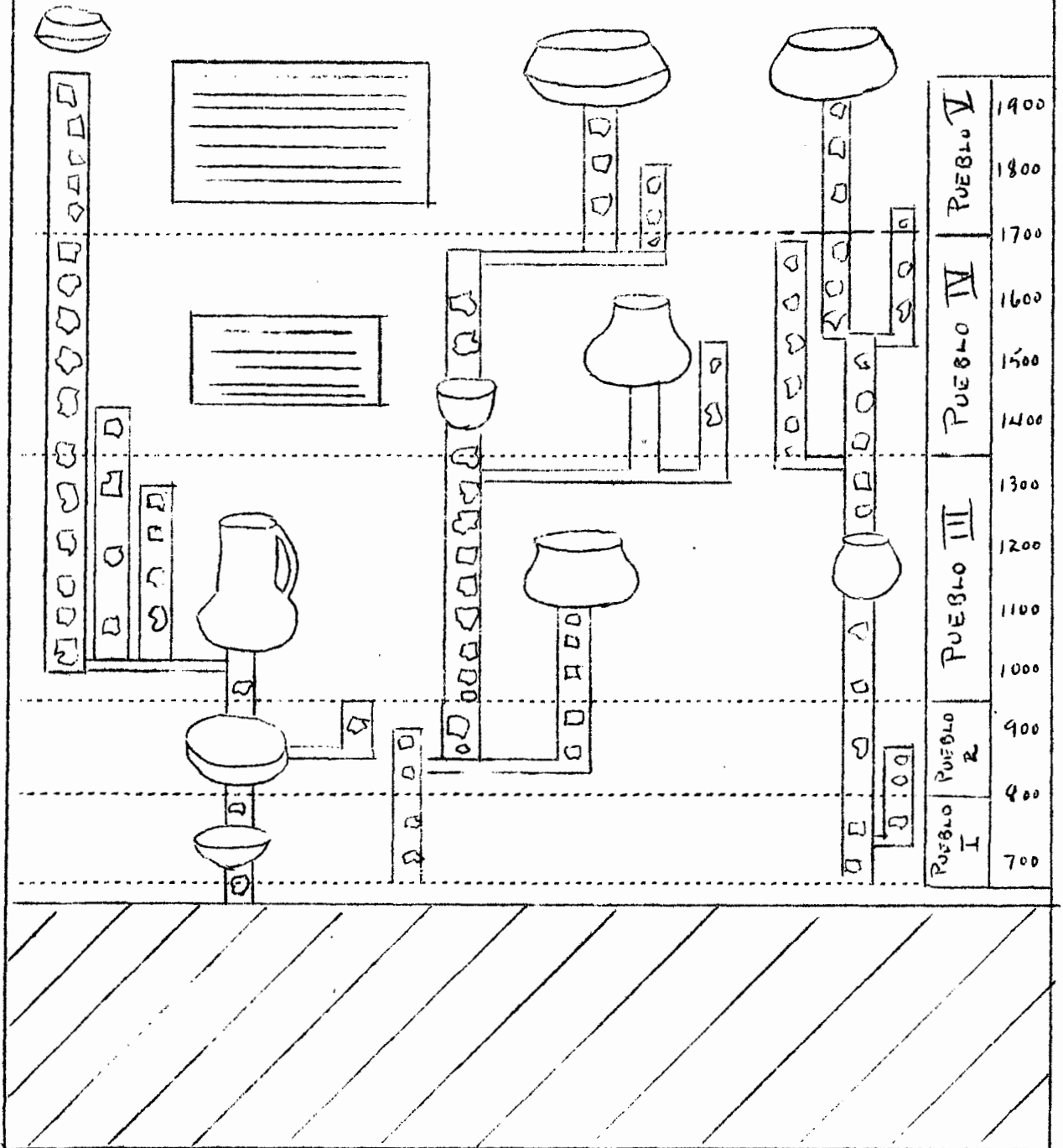
WHAT SORT OF PEOPLE WERE THESE?



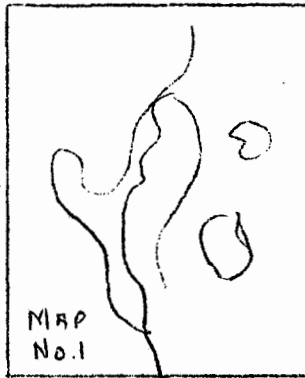




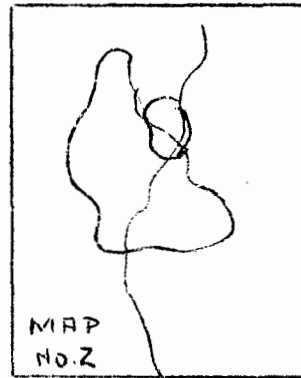
"FAMILY TREES" OF POTTERY AID IN DATING



FROM WHERE DID THE PAJARITANS COME?



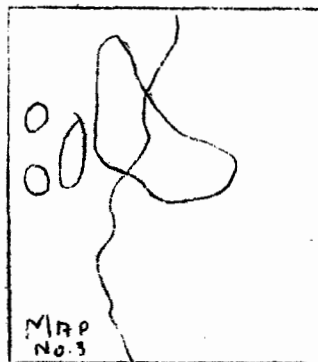
HOUSE
TYPE



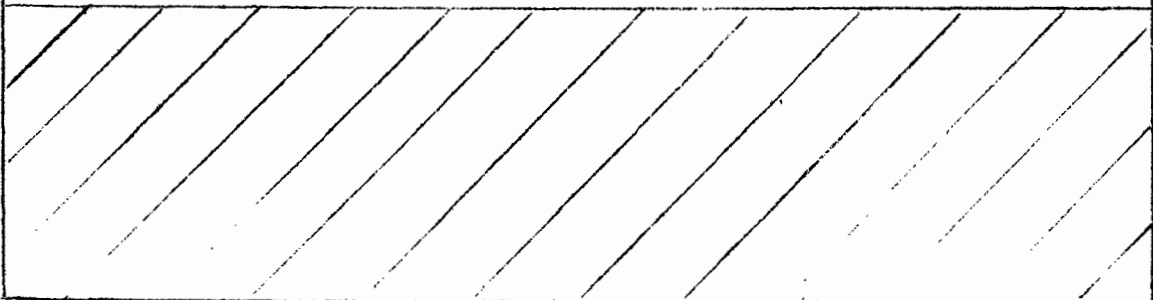
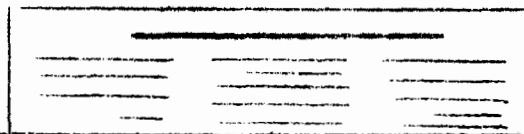
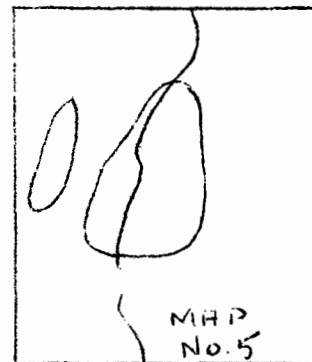
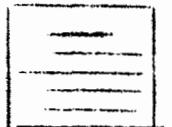
HOUSE
TYPE



HOUSE
TYPE



HOUSE
TYPE



MORE SUGGESTIONS....

By Earl Jackson

Mr. Robert H. Rose, Park Naturalist,
Southwestern National Monuments,
Coolidge, Arizona.

Dear Bob:

Have been studying your "Educational Survey and Proposed Museum Exhibits Plan" for Bandelier National Monument. As a whole, I think it is excellently done. You have made a remarkable consolidation of our ultimate exhibit plan for the restricted three-room space allowed.

My suggestions follow in order with the headings in your plan:

Temporary Lobby, Exhibit I.

II. Control Label for Bandelier Vicinity Map.

a. I recommend that the central map showing routes and places of interest in the Bandelier-Santa Fe region be a picture relief map. That is, the topographic features will be pictured, to render the map vivid and graphic.

b. b. Photographs of leading places of popular interest arranged at sides and bottom of this map. This idea is good, in part. But I recommend we picture only archeologic or natural scenic sites. There is no use picturing the modern Indian pueblos in this exhibit, for we have not sufficient space to warrant more repetition than is absolutely necessary.

The label you suggest at the bottom of this exhibit will make sufficient mention of spots of varied tourist interest.

Good pictures or sketches might be as follows: The Valle Grande, Puye, Pecos Ruins, Ruins of Tsirege (12 miles Northeast), Pueblo Bonito, Aztec Ruins, Pindi (large excavated ruin on river flat six miles west of Santa Fe, made of adobe), and White Rock Canyon.

Temporary Lobby, Exhibit II.

Plate IV, Note:

I suggest the diorama be a Scene at Acoma during the Spanish invasion, when this site was stormed. This would be very colorful, and more interesting as suggestive of earlier contacts than scenes of early Santa Fe.

Temporary Lobby, Exhibit III.

II. Control label on the Natural History of the Bandelier Region.

MORE BANDELIER SUGGESTIONS (CONT.)

a. Life zones diagram O K as given. I suggest that the riker mounts of foliage, flowers, etc., be given over to principal ground cover types. We have insufficient space here to give even a smattering of flowers or smaller plants, so better to cover the ground cover type in detail than do it all haphazard. I suggest we show twigs and cones, and even small pictures of the different forms seen in conifer growth trees. Show mounts of the Ponderosa Pine, the Piñon Pine, the Junipers (*Monosperma*, *Scopulorum*, *Sibericus*, *Pachyphloea*) Douglas Fir, White Fir. Then show Quaking Aspen. For principal canyon growth show Western Narrow Leaf Cottonwood and Box Elder.

Archeology Room. Exhibit I.

II. Control Label on Architecture is Bandelier's Ruins. The model idea is fine, but if we are cut on how many models we can have, I would prefer the following: Model of Tyuonyi, Model of reconstructed section of Talus House, and Model of Great Kiva in Frijoles Canyon. Then, for Tsankawi and Puye we could well do with sketch studies for comparison.

In lieu of my former idea, which had in mind diorama groups of life showing house types from the primitive unit type structure through the stages into historic times, it would be most necessary to show sketch studies of house development from earliest times in Northern New Mexico into modern. The location of Tyuonyi in this scale could be shown by a legend or string, from the model.

Sketches showing stages in house development could show:

1. Unit type houses on the mesas.
2. First occupation in caves of canyons (artificial caves).
3. Construction of Talus units in front.
4. Construction of Community Houses for defense purposes, either on Canyon Floor, as in Tyuonyi, or on mesa, as at Puye. (We must be careful to indicate, however, that although talus houses and community houses may have been of different building periods, they showed contemporary occupancy.)

I think the diorama for this case could show Indians climbing into the Ceremonial Cave. This is a model which would be relatively simple to make, and very attractive.

Archeology Room. Exhibit II.

III. You state the corner in common between Exhibits II and III will be utilized for a meriam Turkey represented in its natural

MORE BANDELIER SUGGESTIONS (CONT.)

setting.

I do not see any use here for a Merriam Turkey. We have already shown a painting of a Merriam Turkey in the Temporary Lobby, and that seems to me sufficient. We need the space between Exhibits II and III for extension of artifact space.

The diorama space on the right of Plate VIII is a good spot to show miniature figures of women making pottery and grinding meal.

Archeology Room. Exhibit III.

Plate IX.

In the right corner of this case is excellent space for skeletal remains of the Indians. In here I want sketch and label material showing perhaps half a dozen of the commoner measuring points on skulls for determining head type. Then small pictures of people of different races should be given, showing the short Broadheaded Pajaritans as being closer to the modern Pueblo Indians than any others.

A male and female skull should be shown, with sex determining points marked. From these points strings will run to a chart on the wall. Also, an infant skull should be shown, and brief chart information in determining age by bones will be placed somewhere between the three skulls. If it doesn't require too many strings, the rough ages of the three specimens can be located on the chart the same as with sex, above.

Of course, if we ever get an interesting and complete burial, we will want it shown in situ in this room. Probably lack of wall space would require that it be shown in the center of the room.

Ethnology Room. Exhibit I.

Plate XI.

Principal inhabited Pueblos of the Rio Grande Area shown by picture and photo in central panel could include, in addition to those listed, San Juan, Santo Domingo, Tesuque.

Ethnology Room. Exhibit II.

Plate XII.

I think, as you suggested, the panels at either end might be used for pottery. I am convinced we will need all of this case to show what we want to in modern pottery, to illustrate different techniques, cases of copying or imitating, stages in early and late, etc.

I. Control Label on Modern Pueblo Indian Pottery and Art.

c. Here you suggest using old pottery below specimens of historic pottery, for comparison. I think here, because we will not have any too much old pottery any way, and because it would be some-

MORE BANDELIER SUGGESTIONS (CONT.)

what in the nature of repetition to put here, after showing it in the archeology room, we should do the following: Place underneath the modern pottery some color plates showing essential design elements of prehistoric pottery, and (and this is important) use a lot of the designs found in rock carved art. Petroglyphic art is intensively used by some modern Indians, especially the San Ildefonsos, in their ceramic decoration. This use of petroglyphic material dates largely from modern attempts at revivifying the old art.

Hope these criticisms are what you want. When you want specific data for labels, etc., fire the priority at me and I will do what I can.

By A. E. Borell, Regional Wildlife Technician

In accordance with your request I have studied the Natural History exhibit case proposed (page 14) by Park Naturalist Rose for Bandelier National Monument.

Since the space available for natural history is so small I feel that too many subjects are portrayed. I suggest the following changes: (1) Eliminate the wild turkey painting, since the turkey will be exhibited in the archeological room. (2) Eliminate the reptiles, as they are not attractive or easily seen in alcohol. We may find some small space where a few common species can be exhibited. (3) Eliminate the plant specimens, because most of the common species will be shown in the Ethnology room as described on page 30, of Mr. Rose's report. (4) Life zone charts are interesting, but to only a small percentage of visitors. This chart might be eliminated or reduced to a narrow strip along the top of the case. (5) In place of the above-mentioned exhibits I suggest a single exhibit. A habitat group of birds from the headquarters area would be attractive and interesting, but I believe the case is too shallow (3 feet) for a habitat group. An exhibit of mounted birds on a panel, similar to the exhibit at Mesa Verde, may be the only solution. However, the Museum Department may be able to work out a habitat group even in this shallow case.

It must be remembered that you will need a competent taxidermist to prepare the bird mounts. Poor specimens are worse than none.

If the bird exhibit is agreed upon I will be pleased to assist with the collection of birds and selection of species most desirable for the exhibit.

I feel certain that artificial lighting for the cases will be necessary.

Notes and Comments.

Pages 1 to 7, inclusive. Your plans for protection and interpretation at Bandelier seems very fine. I like the idea of field trips for visitors. Here it seems is a great field for your specialist. I would think about 75% or more of the visitors to Bandelier would only visit the museum, and the short trip to the closer ruins would be taken. Your Ranger-Archeologist would shine here. Then for those wishing to go into the primitive area, also the trail to the Rio Grande and falls, the naturalist and geologist would be in his realm. Conducted trips to these points would lessen the fire hazard somewhat and give the visitor who is interested in botany, geology, etc., a chance to see Bandelier and what it has to offer in these fields under guidance of a competent man versed in the subjects.

Pages 8 to 10, inclusive. Exhibit No. I in Temporary Lobby seems very good, but the maps should be very outstanding to attract attention. The observation here at Aztec is that maps do not attract very much attention except to comparatively few visitors. Don't make the mistake of making your maps the same color as the Southwestern Archeological map at Aztec which is very dull in color and background. Particularly since this is the opening exhibit for the visitor, it must be as attractive as possible. With electricity, lighting effects could make a map exhibit very attractive, but until then, the reaction may prove unfavorable. I like the setup of Exhibit I so far as content is concerned.

Exhibit II. Temporary Lobby.

This case should create quite a lot of interest as it gives both American and Spanish History of the region. However, I wondered if it would not confuse the visitor with the maps showing Spanish land grants under American History. I think I understand the purpose of it here, but it might get the average person unfamiliar with the history of the region rather mixed up. Here again the maps should be very outstanding to create sufficient interest. I fully realize that this is only a temporary plan for a tryout and may work fine.

Comparative Architecture Case

This case should arouse much interest with its restored ruins and models. Visitors have reacted very favorably to the few models on display at the Aztec Ruin. Don't you think in your model section that 1, 2, and 3, should cover the Cavate Dwelling, Talus Ruin, and Bandelier Kiva? Then 4 and 5 could cover the proposed model for Jemez and Pecos Ruin. I may be all wrong in my surmises about this setup and I'm not sure just what the setup portrays, but you asked for comments, so I'm trying. When I said I wasn't sure of what this

MORE BANDELIER MUSEUM SUGGESTIONS (CONT.)

setup portrayed, I meant the planning of the Pecos or Jemez model between those of the Bandelier region.

Exhibit II - Bandelier Archeology Room.

An excellent plan, especially the cross section of a trash mound. The "Story of the Trash Layers" Exhibit at Aztec Ruin has created more real interest than almost any other case with the possible exception of the Burial Case and if the real pottery is used on the sides of the section to show the different periods, it should create still more interest.

Exhibit III - Archeology Room.

This exhibit seems to me to contain too much material. You have practically your entire exhibits of the artifacts and other material all thrown in one case. However, as you would probably say, what am I going to do about it? If your case is divided with a partition, the setup would not be so bad. Such may be the case as line may indicate. Yet, with only three cases in your Archeology Room, I don't see what other setup you could use to show all you want to.

EXHIBIT I - Ethnology Room.

This case seems to be ideal in content to arouse interest and orient visitors in regard to the modern pueblos of the Rio Grande area. Can suggest no changes.

Exhibit II - Ethnology Room.

This setup seems fine, but aren't you repeating with more detail part of Exhibit No. I in your Ethnology Room? If you have pictures of Maria and Rose in Exhibit I, would you want to repeat in Exhibit II?

Exhibit III - Ethnology Room

Can offer no suggestions or unfavorable comments on this case. It seems such an arrangement would show clearly to the visitor the entire procedure from the plants or trees to the finished product.

By Charlie R. Steen

Following are my criticisms of the proposed plan for a three-room museum at Bandelier National Monument, as formulated by Park Naturalist Rose. Since these arguments were just submitted the entire plan has been fairly well ironed out in a series of discussions so no attempt is made in this paper to do more than suggest certain revisions.

Due to lack of space it is imperative that all superficial and
SOUTHWESTERN MONUMENTS 488 SUPPLEMENT FOR DECEMBER, 1935

MORE BANDELIER MUSEUM SUGGESTIONS (CONT.)

irrelevant material be excluded from the exhibit. In room I it seems to me to be unnecessary to devote eight feet of wall space to maps and charts describing the Park Service and its units.

It seems to me that with all the advertising done to both by the Service and by various commercial concerns that most visitors are aware of the existence of the National Parks and Monuments and to some extent are familiar with the aims and policies of the Service. I believe that any specific questions could best be answered by the ranger.

The idea of a Bandelier vicinity map is good, the choice of ruin to be illustrated can be improved. Ruins depicting more closely the development of the Pueblos in the middle Rio Grande Valley should be chosen - Pueblo Bonito, Aztec, and Taos are not pertinent.

I suggest a map showing probable migration routes into the valley with details of features of the topography which attracted the primitive immigrants and which influenced their mode of living. This could be done with numbered side panels shown with the principal map.

This entire case is the place to give the visitor a background of Southwestern archeology leading up to the occupation of the Pajarito Plateau. To go into the archeology room and show with no foreword an exhibit dealing with Pueblo III and IV is not desirable---perhaps the first of Exhibit I could contain a chart or diagram showing the development of the agricultural peoples of the Southwest. The Bandelier vicinity map, which narrows down the area under consideration, be moved next to the door through which one passes into the archeology room.

Exhibit II

Rather than a mere description of events during the Spanish, Mexican, and American occupations of the territory, a panel showing the effect on the life, religion, customs, and dress of the Indians through contact with the European peoples. As the case stands at present there is depicted not much more than a bald statement of a series of historical figures and events. One of the most interesting stories which history tells is the effect of contact between two foreign groups. This is particularly true in the Southwest and an exhibit showing this might easily be one of the most popular in the museum.

Archeology Room

Why has the largest exhibit in the archeology room been given over entirely to mere physical details of house construction? These models would necessarily be too small to be effective and I doubt if measurements are available which would permit reconstructions to be made---the first case is the important one---Here is where the life

MORE BANDELIER MUSEUM SUGGESTIONS (CONT.)

of the prehistoric pueblos of Frijoles Canyon should be told in terms of their artifacts and household goods. A merriam Turkey - even in a natural setting - is entirely out of place in an archeological exhibit and uses much valuable space.

One important phase of the story has been entirely overlooked--- a description of the people themselves. One of the first questions of nearly every visitor is "What sort of people were these?" A section of a case should be reserved for busts and skeletal remains---sketches showing the effect of a hard cradle board on the skull of the infant are needed---if it is possible to acquire a few stray mandibles. They could be used to show the effect of a constant use of gritty food on teeth---several very interesting and important problems of the physical anthropology of the region could be shown.

Exhibit III

There is too great a tendency to regard pottery making as a phenomenon entirely different from the manufacture of their artifacts. I am in favor of displaying objects of stone, shell, wood, etc., with the pottery, or at least, in close association.

Ethnology Room

Cases I and II should carry the same story. The photographs of the villages with a brief discussion of their histories should be shown with examples of the handicraft of the village---with the arrangement as proposed, the story is broken.

Case III - This is really a repetition of case III in the archeology room. If the ethnology exhibit is well done and contains a few judicious displays of large articles, such as clothing, this could very well be included.

KEET ZEEL

By John Wetherill

The first record we have of Keet Zeel was an expedition for the American Museum of New York, headed by Richard Wetherill, in 1894-5. The Wetherills financed the trip, with the understanding that the Hydes, Fred, Tabot, and their father would take the material after it was collected and pay for it out of their own pocket. The collection with the notes and photographs were taken by them and paid for, for the Museum.

The next visit to the ruins was the Bowler and Whitmore party of 1896-7. Before the trip was finished Bowler and Whitmore withdrew and left the expedition to the Wetherills. This was taken over by the Hydes and turned over to the Museum in 1897. There were quite a few artifacts from Keet Zeel. In 1897 there was no wash near the ruins. There was a lake one and one half miles below the ruins; now

there is an arroyo forty feet deep two hundred feet from the ruins.

In 1908 a party of prospectors visited the Ruins. Later in the season Dr. Edward L. Hewitt visited the Ruins. The following year Dr. Byron Cummings visited the Ruins, and did some work for the University of Utah.

From 1910 to the present time there have been a few tourists each year. In 1933-34 the CWA expended about \$10,000 in working the trail and cleaning out and strengthening up the walls of the Ruins.

In cleaning out the rooms there were about 1200 artifacts taken from the Ruins and turned over to the Museum of Northern Arizona, at Flagstaff. These relics are to be returned to the Navajo National Monument, as soon as a building can be built to house them.

EDUCATIONAL CONTACTS

By Rober H. Rose

Following is a tabulation on educational contacts for the travel year ending Sept. 30, 1935. An "educational contact" is an indication visitor service. The total number of educational contacts is the total number of visitors who have received services of the rangers and ranger naturalists through lectures, field trips, museum visits and other activities having as their chief purpose the interpretation of the features of the parks and monuments. Suppose out of a group of 10 people, all attended a conducted trip afield; 8 of the same 10 were museum visitors; while 6 were at a campfire lecture. There would be entries of "10 field trip contacts;" "8-museum contacts," or "8-museum lecture contacts," depending upon whether a ranger personally conducted the group; and "6-campfire lecture contacts." These are sample entries as they would be listed on Stencil Form No. 16 which was designed for keeping daily records and has been distributed to custodians. Notice that out of the group of 10 visitors there resulted A TOTAL OF 24 EDUCATIONAL CONTACTS.

The tabulation following is based upon estimates. Totals by months are shown at the bottom; totals by monuments for the year are in the column at the right. HOW DO THESE FIGURES REFLECT THE SERVICE GIVEN AT YOUR MONUMENT FOR THE YEAR?

These daily records of visitor service are fully as important in the administration of your monument as your equipment records, maintenance of physical improvements and other administrative details and yet we have no records from the system as a whole upon which these tabulations can be made with a satisfactory degree of accuracy! It is hoped that careful attention to the daily records expected on Form 16 will correct this situation for 1936.

SOUTHWESTERN BIRD BANDING TOTALS

Species	Bandelier	Casa Grande	Chaco	Montezuma	Navajo	Pipe Spg.	Walnut	Wupatki	Tot.
	Prior Dec.	Prior Dec.	Prior Dec.	Prior Dec.	Prior Dec.	Prior Dec.	Prior Dec.	Prior Dec.	
Bluebird,							215		215
Chestnut-bkd.									
Crossbill,							17		17
Bendire									
Chickadee,					6		3		9
Mountain									
Dove, Western									
Mourning		2							2
Finch,		25	51						76
House									
Flycatcher,		2							2
Ariz. Crested									
Goldfinch,							2		2
Green-backed									
Jay,									
Long-crested	3								8
Jay,					6				6
Woodhouse									
Junco,					3				3
Gray-headed									
Junco,					9				9
Montana									
Junco,									
Pink-sided	4								4
Junco,									
Red-backed	21				2		5	5	33
Junco,									
Shufeldt	4				13		2	3	22
Mockingbird,									
Western		1							1
Nuthatch,							20	3	23
Pygmy									
Nuthatch,									
Rocky Mount.							4		4

RUMINATIONS

And now comes the yowl of the stencil cutter that it is time for the ruminations and then we will begin gathering this report and getting it into the mail. If you believe it is easy to sit down and ruminate with a stencil cutter waiting at your elbow for copy and a mimeograph singing its song in the next room, come out and try it some time.

The natural thing to do in the December Report is to look back over the year spotting all the highlights where we covered ourselves with glory, overlooking all the dark spots where we fell down pretty badly and coming in with a complimentary close inferentially patting ourselves on the back and winding up with a prognostication that next year will be the biggest and best and we have nineteen different kinds of New Year's Resolutions which we are going to put into effect.

The trouble with that scheme, Chief, is that you would know well enough when we were using too much color in painting our glory and keeping quiet about those failures would simply emphasize the fact to you that they were there. In view of the fact that we have written you eight hundred pages of narrative reports this past year, you ought to be fairly well acquainted with what is going on down here in this district. If you haven't read any of those eight hundred pages, I am frank to say they can't be boiled down into a page or two of ruminations and I am not going to try.

As to making of New Year resolutions, we are too busy keeping one jump ahead of the work down in this district to do any promising two months ahead to say nothing of a whole year. I take it as a matter of course that the next year will see some sharp changes. We have been working for several months with that in mind and are trying to shape our affairs the best we know how to meet the conditions as they arise. We have some changes of our own in mind which will appear in due time but they are nothing to make resolutions about.

It looks like we will just have to close this volume of narrative reports, covering the last half of nineteen thirty-five, tack the index on it; bind it; put it on the shelf as a reference book, a sort of log by which we can check our future improvement; and then turn our faces forward into 1936 and tackle the January work with the hope that we won't at least make the same mistakes we made in 1935.

As a last word before I turn this over to the stencil cutter and mimeograph operator, I would like to say that with all its failures and successes; with its surprises and disappointments; with its hectic periods and its dull spells; as we look back over it we seem to have had a lot of fun out of the job as we came along through nineteen thirty-five.

Cordially,

The Boss

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EDUCATIONAL CONTACTS SUMMARY FOR TRAVEL YEAR BY MONTHS AND BY INDIVIDUAL MONUMENT

MONUMENTS	OCT. 1934	NOV.	DEC.	JAN. 1935	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	TOTAL CONTACTS
ARCHES-----										20	20	20	60 (Field)
AZTEC-----	645	666	336	298	278	282	554	960	903	1675	2250	1891	10,738 (Field)
	645	666	336	298	272	282	554	960	903	1675	2250	1891	10,738 (Museum)
BANDELIER	1803	632	214	233	294	427	643	735	2083	2092	2475	1594	13,225 (Field)
DE CHELLY	129	62	3	9	1	0	101	23	179	163	135	153	958 (Field)
C/PULIN	200	360	80	80	70	120	100	300	500	1000	1000	1000	4,810 (Field)
CASA GRANDE	1825	2389	2463	2327	2923	3335	3766	2443	1359	1198	1376	1691	27,095 (Field)
	1825	2389	2463	2327	2923	3335	3766	2443	1359	1198	1376	1691	27,695 (Museum)
CHACO	826	492	--	361	207	308	472	340	649	672	1031	875	6,235 (Field)
	826	492	--	361	207	308	472	340	649	672	1031	875	6,235 (Museum)
CHIRICAHUA	--	--	--	--	--	--	--	--	700	1766	958	576	4,000 (Field)
EL MORRO	100	100	40	40	40	40	40	100	373	381	333	240	1,827 (Field)
GILA CLIFF	00	00	00	00	00	00	00	000	00	00	00	00	0000 (None)
GRAN QUIV.	288	299	188	200	216	373	293	396	386	950	385	545	4,519 (Field)
	288	299	188	200	216	373	293	396	386	950	385	545	4,519 (Museum)
HOVENWEEP	00	00	00	00	00	00	00	00	00	00	00	000	000 (None)
MONTEZUMA	1080	1299	775	321	1167	592	1350	1400	1587	1847	1910	1782	15,110 (Field)
	1080	1299	775	321	1167	592	1350	1400	1587	1847	1910	1782	15,110 (Museum)
NATL. BR.	--	--	--	--	--	--	--	70	70	140	120	87	487 (Field)
NAVAJO	--	--	--	--	--	--	--	134	--	86	140	100	460 (Field)
PIPE SPR.	210	130	137	74	14	98	106	207	231	113	128	236	1,686 (Field)
RAINBOW BR.	00	00	00	00	00	00	00	00	00	00	00	00	000 (None)
SLOU RO	--	--	--	--	--	900	1520	--	--	--	--	--	2,420 (Field)
SONSET	--	--	--	--	--	--	--	10	10	20	30	15	85 (Field)
TONTO	150	250	160	275	360	475	500	240	270	200	225	200	3,305 (Field)
	259	421	286	425	599	749	818	398	447	324	360	338	5,398 (Museum)
TUMACACORI	1155	876	738	888	2116	1837	1687	1281	843	712	906	987	13,976 (Field)
	250	200	200	225	500	450	400	300	225	175	250	250	3,425 (Museum)
WALBUT	499	272	122	--	--	--	314	600	1306	1982	2047	1214	8,336 (Field)
WHITE SNDS	100	100	100	65	500	200	350	800	1000	1000	1000	750	5,965 (Field)
WUPATKI	141	--	42	60	50	--	175	125	175	205	--	250	1,505 (Field)
YUCCA	00	00	00	00	00	00	00	00	00	00	00	00	000 (None)

TOTALS SUMMARY

CONTACTS FIELD-126,820
CONTACTS MUS. - 72,518
GRAND TOTAL --199,338

TOTAL TRAVEL FOR YEAR
198,480

$\frac{198,480}{199,338}$ equals 100.4%,

Therefore 100.4% is comparison of contacts with total travel.

126,820 contacts field.
2,093 contacts Tonto Museum not contacted in field trips
126,913--different individuals contacted.

$\frac{126,913}{198,480}$ equals 64%

This means 64% of the visitors were actually contacted and that 36% were not. This is true because of the 199,338 contacts, 70,000 are "double contacts" due to being counted both in field trips and in museum.

* THESE FIGURES BASED UPON ESTIMATES BUT PROBABLY HOLD TRUE AS A WHOLE.

FIELD---9151 --- 7929---5398---5231---8236---8987---11897---10164---12727---16287---16759---14056---126,820 TOTAL
MUSEUM- 5173 --- 5766---4228---4157---5899---6069---7647 --- 6237- 5556 -6841- 7362---7372--- 72,518 " "
TOTALS MONTH14324---13693---9622---9388---14126---15076---19549---16401---18283---23122---24221---14422---199,338 GRAND TOTAL