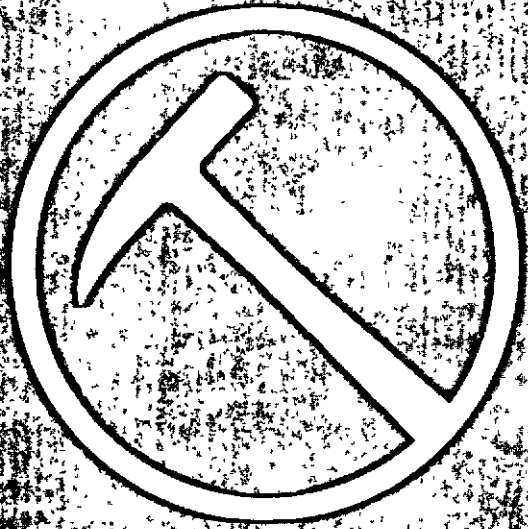


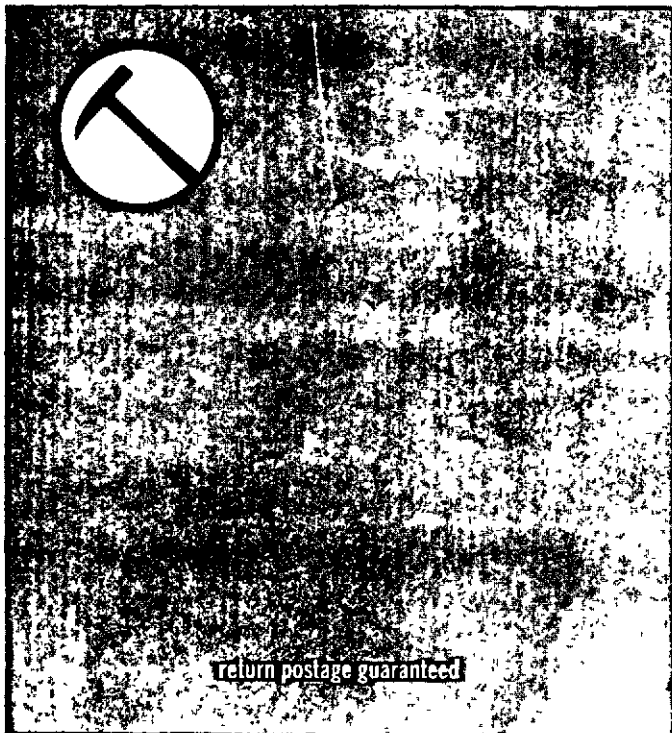
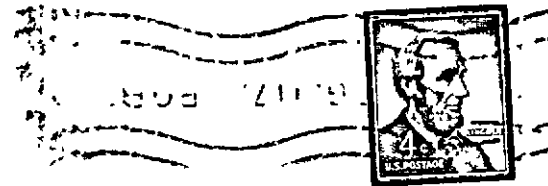
✓
January 1964



Official Publication of the Geological Society of the Oregon Country

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214



return postage guaranteed

State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

OFFICERS OF THE EXECUTIVE BOARD 1963 - 64

President:	Mr. Albert R. Kenney	4125 S. E. Gladstone, Portland 14	775-5697
Vice President:	Mr. Emory Strong	2753 N. E. Wiberg Lane, Portland 13	288-4605
Secretary:	Miss Shirley O'Dell	2140 S. W. Palatine St., Portland 19	246-1339
Treasurer:	Miss Marjorie A. Fessenden	743 S. W. Maplecrest Ct., Portland 17	246-2987
Directors:	(elected) Mr. Leo Simon (1 yr.), Mr. J. R. Rentsch (2 yr.), Mr. Fred Miller (3 yr.) (past presidents) Dr. John Hammond, Mr. Leonard Delano		

STAFF OF THE GEOLOGICAL NEWSLETTER

Editor:	Mr. Irving G. Ewen	4128 N. E. 76th Avenue, Portland 18	281-7098
Asst. Editor:	Mr. William M. Freer	2405 S. E. Taylor St., Portland 14	232-9601
News of Members:	Mrs. Emily Moltzner	7032 S. E. Stark Street, Portland 16	254-2362
Art Advisor:	Mr. Robert B. Anderson	303 Wilcox Building, Portland 4	222-7095
Business Mgr.:	Mr. Robert F. Wilbur	2020 S. E. Salmon Street, Portland 14	235-7284

COMMITTEE CHAIRMEN

Display:	Mr. Dennis Carmody	Membership:	Mrs. Gwen Helm
Field Trips:	Mr. C. T. L. Murphy	O. M. S. I.:	Mr. Ralph S. Mason
Historian:	Mrs. James Running	Program:	Mrs. Thora M. Baker
Junior GSOC:	Dr. John Hammond	Publicity:	Mr. William M. Freer
	Dr. Paul W. Howell	Public Relat.:	Mr. Clarence Phillips
Library		Research:	Mr. Rudolph Erickson
Library Night:		Social:	Mr. Robert Hart
Luncheon:	Mr. Leo Simon		Mr. Greg Hanson
		Telephone:	

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

1964

CALENDAR FOR JANUARY 1964

- Every Thursday LUNCHEON - Y. M. C. A., 831 S. W. 6th Avenue (enter on Taylor Street)
12:00 Noon - Purchase food selections in the main cafeteria (total price will vary as all food items are ala carte). Dine in the Mountain Room adjacent to the main cafeteria. Luncheon sessions, which vary from week to week, may include impromptu talks on geology and related subjects, examination and discussion of publications and specimens, or slide shows.
 For additional information call the Luncheons Chairman, Mr. Leo Simon, at 236-0549 (residence) or 223-0300 (office).
- January 10 Friday LECTURE - Public Library, Main Branch, 801 S. W. 10th Avenue.
7:30 P. M. - Mr. Raymond E. "Andy" Corcoran, geologist with the State of Oregon Department of Geology and Mineral Industries will present an illustrated lecture entitled "The Blue Mountains". Andy's talk is one of a series being presented by the Society on The Physiographic Provinces of Oregon.
- January 12 Sunday FIELD TRIP - Yamhill area via private car caravan.
9:00 A. M. - Assembly point will be at the Dairy Queen Drive-In at the west end of the town of Newberg, Oregon. From here the caravan will proceed north under the guidance of Mr. Herbert G. Schlicker, Field Trip Leader.
 GSOC'ers participating are requested to bring the usual equipment such as lunches, geology picks, cameras, and rain gear in the event of inclement weather.
 If weather conditions such as snow make the trip impossible, it will be rescheduled for Sunday, the 26th of January (two weeks later). If in doubt, call Mr. C. T. L. Murphy, Field Trips Chairman, at 282-2027 prior to 10:00 P. M. on Saturday, January 11.
- January 21 Tuesday LIBRARY NIGHT - Lewis and Clark College, S. W. Palatine Hill Road.
7:30 P. M. - Meet at Peeble's Hall (Biology Building). Program details to be announced.
- January 24 Friday LECTURE - Public Library, Main Branch, 801 S. W. 10th Avenue
7:30 P. M. - Mr. Lenin R. Ramp, geologist with the Grants Pass Field Office of the State Department of Geology and Mineral Industries, will present an illustrated lecture entitled "The North End of the Klamath Mountains". Len's talk is also part of a series being presented by the Society on the Physiographic Provinces of Oregon.

ADVANCE CALENDAR FOR FEBRUARY 1964

- February 14 Friday LECTURE - Mr. Parke D. Snavely, Jr. of the U. S. Geologic Survey will speak about "Geologic and Scenic Beauty of the Olympic Peninsula".
- February 16 Sunday FIELD TRIP - Tour of John Day Dam. Dr. Paul Howell, a past president of the Society, will be trip leader.
- February 18 Tuesday LIBRARY NIGHT - Lewis & Clark College. Program to be announced.
- February 28 Friday LECTURE - Dr. Norman R. Anderson of the University of Puget Sound at Tacoma, Washington will present an illustrated talk entitled "The Washington Cascades".

NEWS OF MEMBERS

By Emily Moltzner

CHRISTMAS GREETINGS RECEIVED

From DR. and Mrs. JAMES (PAULA) STAUFFER, from Mexico City, where he is supervising the work of 24 Lewis and Clark students in the college's foreign country cultural exchange program. We expect them home around March 1st.

WOLFGANG P. LOOPS, well remembered by our campout group for his campfire talk about E. Germany, wrote from Trail, B. C.

Best wishes came from MR. and MRS. MARVIN BERRINGTON, owners of Wild Horse Ranch at Andrews, where campouters spent a couple of nights.

Monograph about "The Cedars of Lebanon", by JOHN R. and LILLA LEACH, presents the religious history of this lovely tree and its place in geologic time as the Cretaceous. This letter is their second complimentary one for our library, last year's being about "The Ginkgo Tree." Thank you very much, Mr. and Mrs. Leach. (Dick Fagan's "mill ends" column of Dec. 23rd The Oregon Journal gives a digest of their letter).

NEWLYWEDS:

SALLY LOUISE TODD and CHARLES H. KENNEY, Nov. 30th, at Stewart Memorial Chapel of San Francisco Theological Seminary. The bride is the daughter of Mr. and Mrs. Mason J. Todd of San Rafael, and he is the son of our President ALBERT R. (AL) and MRS. (LAURETTE) KENNEY. Our best wishes to them at Pioneer Trailer Park, Beaverton.

NEW GRAND-DAUGHTER

For the Dr. James Stauffers, is Eugenie Marie born Dec. 1st to Mr. and Mrs. Kenneth Krause (nee Bonnie Stauffer) of Lake Oswego.

VERA HINKLE TEACHING RUSSIAN

At OMSI, 7:30 to 9:30 p. m., beginning Jan. 20th. Also at Reynolds High School, starting Jan. 14th. For information, call either of these institutions.

TRAVELERS

GRACE POPPLETON and ELIZABETH PRIDEAUX spent the holidays in Hawaii, BOB WILBUR in Spokane, and WILLIAM (BILL) FREER and his mother, in Seattle.

SICK FOLKS

CLARA DAVIS reports her eyes are much improved after surgery last fall.

Fellow member FRANKLIN L. DAVIS is at Rm. 216 Good Samaritan Hospital, 1015 NW 22nd Ave., where he can receive cards but no visitors.

Charter member SAM REICHEN, his wife told us when we phoned her, will appreciate receiving cards at his home, 8131 SE Crystal Springs Blvd., Portland 6.

(Note: The Society we enjoy today was kept going by the "old-timers" who, too often, are forced to give up all activities. They deserve to be remembered).

MEMBERSHIP ROSTER

name	address	city	state	telephone
NEW MEMBERS				
Bonebrake, Mr. & Mrs. John H.	4109 North Winchell	Portland	Oregon	289-8597

ADDRESS CHANGE OR CORRECTION

Murphy, Mr. & Mrs. C. T. L.	2027 N. E. Wasco Street	Portland	Oregon	282-2027
Paige, Mr. & Mrs. Russell A.	854 Bryce Canyon	Oxnard	California	
Wilkinson, Mr. Leonard, Jr.	1247 Powell Lane	Prineville	Oregon	

TELEPHONE NUMBER CHANGE

Hall, Mr. & Mrs. George T.				246-1806
Johnston, Miss Alice				228-9769
Mooney, Mr. & Mrs. Donald G.				775-7174

NORTHWEST PAKISTAN, THE LAND OF THE PATHAN --

By Dr. John Eliot Allen*

Pakistan was partitioned from India in 1947, and is a Moslem State. Originally with only one college and a few secondary schools, it now boasts hundreds of schools, tens of two year colleges, and three universities, of which Peshawar is the newest, and fastest growing and most exciting. These northwesterners, the Pathans, were the tribes that fought the British to a standstill for 150 years, and they maintain their independence to this day. Tall, straight, with grecian or even nordic features, they would as soon spit in your eye as not. The Tribal Territories are still independent of the government, and one has to get special permission to enter, and a guard with a rifle if you plan to go a few feet off the road. In spite of resurgent education, they are incredibly backward: plow with bullocks and wooden plows, winnow grain by hand, live in mud hut and villages, walled with watch towers, women largely except among highest educated in purdah, and wear head-to-foot burkahs when outdoors. There are several PhD proffs on campus whose wives are in purdah!

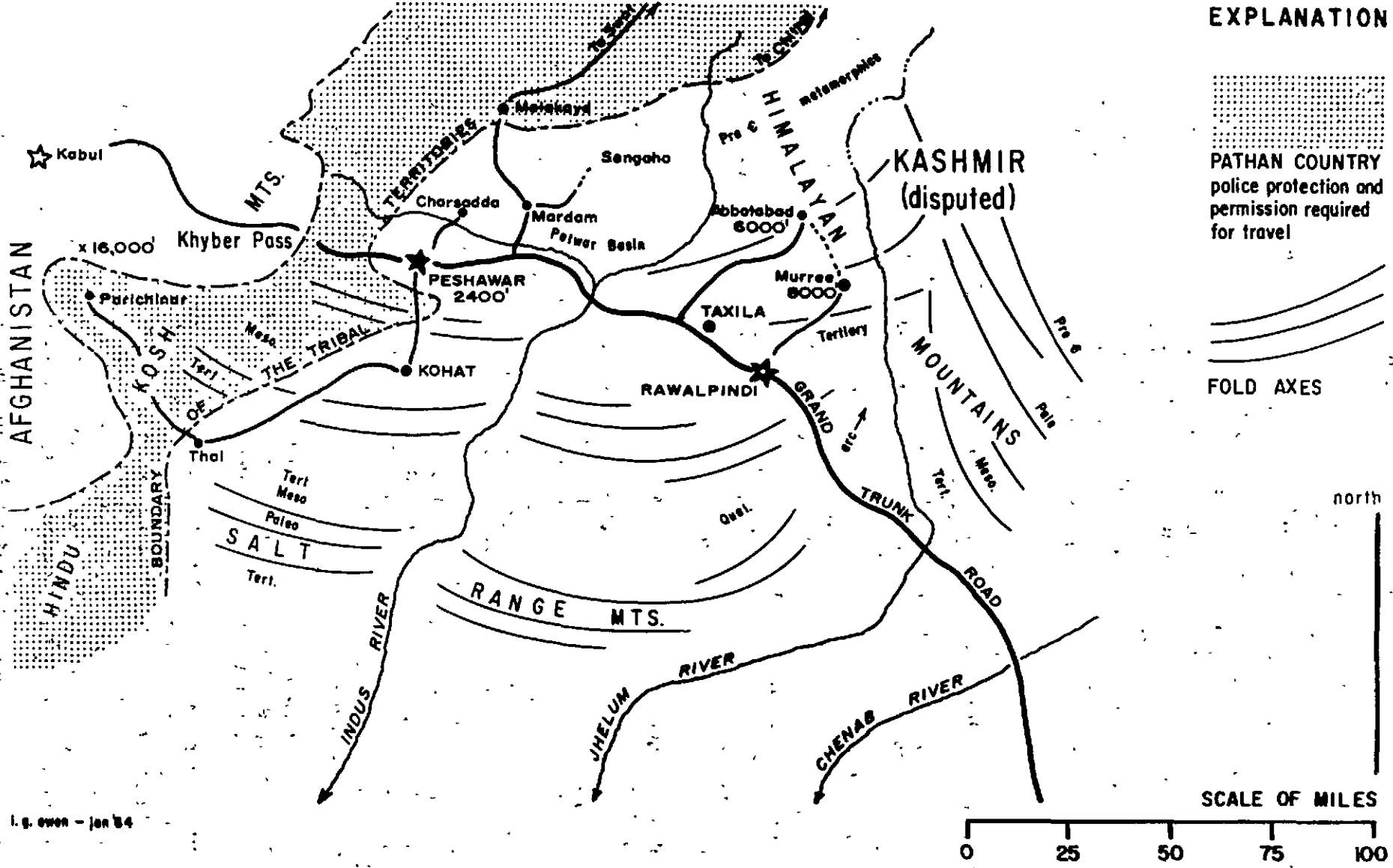
The climate and vegetation is superficially like eastern Nevada or southeastern Oregon. Hot (85-110) from May to September, beautiful falls like Bend, with winters about the same as Bend. The Grand Trunk Road, from Calcutta to Kabul, follows the alluviated flats of the basins crossed by the Five Rivers, three of which are in Pakistan. The Kabul (pronounced Cobble) River passes just north of Peshawar. The famous Khyber Pass is only 25 miles to the west. Alexander came thru here a couple of hundred years B.C., the White Huns came down and devastated the area in 400 A.D., the Moghuls came through and took over later. Remnants of the Buddhist stupas and monasteries dot the landscape, they were all destroyed in 485 A.D. The forts near every community were mostly built by Akbar the Great in 1600 or thereabouts. They are still manned by the army today, against attack from India, who is arming with American arms, and, they say here, plans to take over Kashmir, a predominantly Moslem state. Over our dead bodies, they say here.

Most of the good geology nearby is in Tribal Territory, and very awkward to get at (permits, passes, guards, etc.). The Himalayan Revolution is still going on, all the tertiary rocks and tightly folded, even the Pliocene-Miocene Murree beds and Siwalik beds (up to Pleisto). Lower Tertiary rocks are marine limestones (nummelitics, alveolinas) Permo-Carboniferous rocks contains glacial beds, and much salt and gypsum, and red beds. Appalachian-type folding is common west of Kohat, with vertical hogbacks of limestone swinging and switching back and forth for miles. Yesterday I visited Parichinar, on the Afghan border, a high alluviated valley much like Prairie City, with mountains overhanging to elevations of 16,000' -- of Tertiary limestone! At Charsadda an archeology party is digging up Greek and Kulshan coins and carvings of Gandhara art (Bhuddist). At Sengaho a dig has exposed a middle paleolithic quartz industry. On the hill above are ruins of monasteries 1500 years old. At Taxila three whole cities spanning a period from 400 BC to 700 AD have been excavated, with treasures of gold and silver and stone in a fine museum.

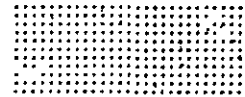
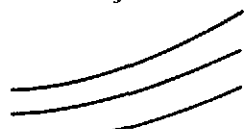
A few weeks ago I took a trip to Abbottabad and Murree, in the 9000 foot "foothills" of the Himalayas. The narrow road through rocks standing on end, folded, overthrust, faulted, beat any similar trip in our Rockies.

Peshawar (pronounced Peh-shah'war) University is five miles west of the city of 350,000, all jam-packed in about 3 square miles. The bazars (local spelling) are simply beyond description, with everything one could imagine for sale in open shops, usually not more than 10 feet wide. You have to go to separate places for separate things: fruitbazar, shoe bazar, gold & silver, copper and brass, iron, silk, cottons, kashmir silks, furniture, jewels, wicker, basket, clothes, and many other kinds. Peggy is seeing to it that we get a good sampling to bring home. (See map following page)

* Professor of Geology at Portland State College now teaching at Peshawar University.



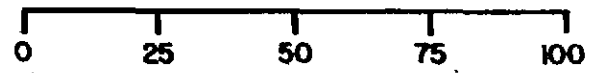
EXPLANATION

 PATHAN COUNTRY police protection and permission required for travel
 FOLD AXES

north



SCALE OF MILES



I. G. Owen - Jan '84

1964

FIELD TRIP TO SAUVIES ISLAND

By Emory Strong*

On November 24, under pleasant autumn skies especially ordered by our capable trip leader, Leo Simon, Gesockers enjoyed a combination geological, anthropological, historical, ornithological, and mycological trip to Sauvies Island. Meeting at the Island end of the bridge, the group was given a review of the Island's varied history. The first white men known to have seen the Island were the crews of the cutter and launch of the armed tender Chatham of the Royal British Navy, of the Captain Vancouver expedition, in October 1792. The boats were stopped at the entrance of Multnomah Channel, where a basalt outcropping marks the downstream end of the Island, by 23 canoes full of Indian warriors. With presents and the services of friendly Indians, Lt. Broughton, commander of the crews, obtained permission to proceed. He promptly named the outcropping Warrior Rock by which it is still known. Once it was covered with burial canoes, sepulchers of departed residents of the Island.

Next to see the Island was the Lewis and Clark expedition, on November 5, ¹⁸⁰⁵ 1905. They noted a village of four houses (Multnomah) later Reeder Point and one mile below one house (Clan-nah-quah) on the Columbia River side.

The first settlement on the Island was by Nathaniel Wyeth who built Fort William in 1834. Land was cleared and sheep, hogs and cattle grazed but his trading and salmon packing venture failed and he left in 1835. At the same place the Hudson's Bay Company established a dairy during or before 1838, in charge of Laurens Sauve', after whom the Island was named. Later another and possibly two more dairies were built. The first Donation Land Claim was taken by Jacob Cline in 1845, followed in the same year by Isabelle Logie. By 1854 there were 14 more Claims. The first postoffice was established in 1851, the first telephone installed in 1948, and electrical service brought in in 1936.

The fabulous richness of the soil is due to its source, and before the dike was built in 1938-41, to annual flooding.

Emory Strong gave a brief history of the first settlers, the Indians who had apparently been there for many centuries. In 1805 there were probably 2000 natives on the Island, the remnant of a population decimated by smallpox about 1770. Practically all the remaining natives died in the great pestilence of 1830-35. There are many village sites on the Island from which tons of artifacts have been removed. One of the most interesting is near the bridge, where wood and fiber artifacts are found, preserved by constant immersion in water. It is noteworthy that all of the sites in the lower Columbia Valley are covered in the spring high water, an untenable condition during their occupancy. Therefore either the water level has raised or the land has sunk.

After the lectures the group followed the dike road along Multnomah Channel, stopping at the Fort William-Hudson's Bay Dairy site where Leo gave some more history and Emory told about the nearby village site Clah-in-na-ta. Here all the Indians had died by the time the fort was built, and the houses burned by the Hudson's Bay Company as a sanitary measure. Next to the present Cholick Farm, site of the village Chan-na-min-na-min, on the Multnomah-Columbia County line. Here, three engagees of the Pacific Fur Company at Astoria, attempting to escape to Canada, were captured and held as slaves. They were ransomed by Gabriel Franchere.

Returning by the same route, we drove to Oak Island which on the upstream end consists of a deep gravel deposit, with quartzite inclusions. Considerable discussion was held about the formation of Oak Island with no definite conclusions. The general opinion was that it is a pleistocene deposit with rafted boulders, or the eroded remnant of a still earlier island. Several members picked up specimens of colored and multi-colored quartzites.

Sauvies Island itself seems to be built of about one quarter cubic mile of silt deposits washed from the Columbia and Willamette drainage area. Slowing of the streams by their

*Author of the book "Stone Age on the Columbia".

Field Trip to Sauvies Island - cont'd.

confluence, by Warrior Rock, and by the core of Oak Island caused the deposition of silt, a phenomena still in progress. Here we saw large flocks of geese, ducks, cranes, and numerous land birds besides fungus and mushrooms, all readily identified by the encyclopedical Leo.

From Oak Island we proceeded to Marshall's Beach where we enjoyed a picnic lunch on the clean sand dredged from the Columbia. Enjoying the lunch, also, were numerous cats and dogs all adept at panhandling, to the amusement of everyone. Then to the East Side Checking Station of the Oregon Game Commission where we enjoyed a lecture on migratory birds and the conservation practices of the Commission. Thousands use the area not only for hunting but for boating, picnicing and nature study. Sauvies Island is one of the major stops for migratory water fowl, many of which winter there on wild food planted by the Commission.

Then to the Earl Reeder ranch where Mr. and Mrs. Earl Reeder were our hosts while we viewed their extensive Indian artifact collection, most of which came from the Old Multnomah village site on which the farmstead is built, first settled by Simon Reeder in 1854. Over the years the river bank has washed back two or three hundred feet, exposing a profusion of artifacts, preserved by the Reeders. One wall of their basement is covered with rocks, sinkers, mauls, mortars, pestles, and other stone artifacts. In glass show cases are arrow points, stone and bone carvings, bone needles and awls, in fact all bone and stone tools used in an Indian village. Trade beads and buttons show that the site was occupied in historic times. Another interesting relic is an iron cannon ball from Fort William.

After a rousing cheer for our leader Leo and our hosts the Reeders, the group of 15 cars left for home saturated with history and romance.

HOW IT CAME ABOUT

By Emily Moltzner

Our social hour is growing bigger and better. After Dr. Byrne's lecture Dec. 13 most of the more than 100 people present stayed to get better acquainted. Social Chairman ELIZABETH GILLIAM'S helpers were:

Cookie Bakers: MAY DODSON, MAY DUNN, PEARL GILCHRIST, EFFIE HALL, GWEN HELM.

Telephone Comm.: WILMA BERG, BERYL COX, MAY DODSON, RUTH HANSON (Greg's grandmother), RUTH JENNISON, EMILY MOLTZNER, RUTH PRENTISS, REBA WILCOX, HAZEL ZIMMER.

Transportation and handyman: BOB WILBUR

Christmas Cards: Collecting signatures for the Dr. John Allens, Dr. James and Paula Stauffer, the Fred Millers and Greg Hanson - CLARA BARTHOLOMAY.

Candid Camera Shots: JACK POLLARD

Pouring: MAY DODSON and LYLA ELLIOTT (McMinnville). Neither had an opportunity to visit for fear the spigot of the urn would run over. They needed help.

Guest cards: From NELL CONLEY of Pacific NW Bell Telephone Co.

Cookie Purchases by DORIS (Mrs. Arthur C.) JONES and GODFREY MUELLER helped our slim treasury.

Table Decoration: JOHANNA SIMON

New Member ROBERT GOLDSWORTHY came all the way from Seattle.

After reading the above, you'll no doubt agree with TRUMAN MURPHY when he says, "Now . . . all this didn't just happen! It took a lot of doing! If you like to give as well as receive, make yourself known. There's plenty to do! Tell Elizabeth Gilliam and she'll put you to work." (Note: Next Social Hour will be Friday, Jan. 24. See Calendar of Events).

GSOC'ERS VISIT STATE DEPARTMENT OF GEOLOGY



Left to right: Albert R. Kenney, President, Geological Society; Hollis M. Dole, State Geologist; Leo Simon, former president, Geological Society, are "listening" to a volcanic bomb. It will not explode because it was deposited on Cow Lakes Lava Fields, Malheur County, Oregon, millions of years ago.

(Photo by Mel Junghans, The Oregon Journal.)

The field trip for December was a reception on December 15th for the Society at the offices of the State Department of Geology and Mineral Industries in the State Office Building. Director Hollis Dole and his full staff were on hand to explain the workings of the various departments and processes of the undertaking.

Ralph Mason who, of course, knows everybody in the Society, was receptionist at the door for this was Sunday and the big building was not open to the public. Miriam Roberts, librarian; June Roberts, secretary; and Margaret Steere, geologist, moved the guests to various sections where instruction was begun.

Dick Bowen identified rocks. L. L. Hoagland fired up his furnace and ran off an assay for precious metals before a fascinated crowd. Tom Matthews explained the mysteries and functions of the spectroscope while across the hall Herb Schlicker's powerful microscope brought out the natural beauties of a slice of lowly gabbro as it bared the crystals to view. Andy Corcoran presided in the chemical laboratory while Vern Newton and John Newhouse in the cartography section were explaining map-making.

Irv Ewen's gracious manner at the coffee urn induced guests to leave the attraction of an outstanding showcase display of rocks and minerals to accept of his hospitality.

The thanks of the Society are tendered to these scientists who gave up their Sunday for the education of laymen to whom the study of earth sciences is a valuable and provocative avocation.

INFORMATION FOR JANUARY FIELD TRIP

The January field trip will encompass parts of the Yamhill and Tualatin watersheds, an area close enough to Portland to be an attraction to many enthusiasts. Some fascinating geologic phenomena are to be seen in dikes and faults on Chehalis Creek, landslides in the Red Hills and a sandstone horizon that persists in a strandline through the area to be visited. Lee Falls on the Tualatin is a scenic attraction and the Gaston quarry of geologic interest.

Members would do well to read beforehand and to have in their possession on the trip copies of the November 1962 Ore Bin wherein H. G. Schlicker's article describing his survey of this region and his map of the Yamhill quadrangle delineating every feature of the trip is of outstanding value to this excursion.

Moreover the Society is particularly fortunate to have Mr. Schlicker, geologist with the State Department, as trip leader.

The cars, bearing of course the GSOC cards, will assemble at the Dairy Queen drive-in station at the west end of Newberg, about 25 miles west of Portland on US 99W, at 9 o'clock on Sunday morning, January 12th. From the assembly point the caravan will proceed north out of Newberg, and not to the Yamhill locks as was announced at the December meeting. Bring lunches, raingear, cameras, the family. Ordinary showery weather will not cancel the trip but should the weather be impossible, as for instance snow on the ground, the field trip will be postponed for two weeks to January 26th. If you have misgivings call Truman Murphy, 282-2027, on Saturday night before 10 o'clock.

C. T. L. M.

NOMINATING COMMITTEE ANNOUNCES SLATE

Nominating committee announces the following slate of candidates for election to office of the Geological Society:

President	Mr. Irving G. Ewen
Vice-President	
Secretary	Miss Shirley O'Dell
Treasurer	Mrs. Laurette Kenney
Director	Miss Margaret Steere
Editor News Letter	

Members of the nominating committee appointed by President Al Kenney:

Mr. Ralph Mason	Dr. Paul Howell
Mr. Lee Gavigan	Mr. Wm. Freer
Mr. Truman Murphy	

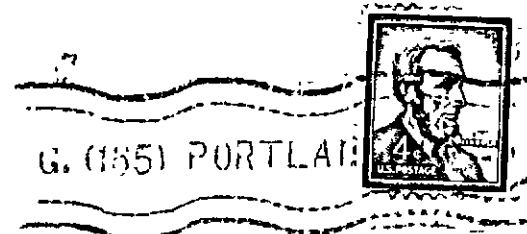
February 1964



Official Publication of the Geological Society of the Oregon Country

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214



PROPERTY OF LIBRARY
OREGON DEPT. GEOL. & MINERAL INDUST.
STATE OFFICE BLDG., PORTLAND, OREG.

State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon



return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

OFFICERS OF THE EXECUTIVE BOARD 1963 - 64

President:	Mr. Albert R. Kenney	4125 S. E. Gladstone, Portland 14	775-5697
Vice President:	Mr. Emory Strong	2753 N. E. Wiberg Lane, Portland 13	288-4605
Secretary:	Miss Shirley O'Dell	2140 S. W. Palatine St., Portland 19	246-1339
Treasurer:	Miss Marjorie A. Fessenden	743 S. W. Maplecrest Ct., Portland 17	246-2987
Directors:	(elected) Mr. Leo Simon (1 yr.), Mr. J. R. Rentsch (2 yr.), Mr. Fred Miller (3 yr.) (past presidents) Dr. John Hammond, Mr. Leonard Delano		

STAFF OF THE GEOLOGICAL NEWSLETTER

Editor:	Mr. Irving G. Ewen	4128 N. E. 76th Avenue, Portland 18	281-7098
Asst. Editor:	Mr. William M. Freer	2405 S. E. Taylor St., Portland 14	232-9601
News of Members:	Mrs. Emily Moltzner	7032 S. E. Stark Street, Portland 16	254-2362
Art Advisor:	Mr. Robert B. Anderson	303 Wilcox Building, Portland 4	222-7095
Business Mgr.:	Mr. Robert F. Wilbur	2020 S. E. Salmon Street, Portland 14	235-7284

COMMITTEE CHAIRMEN

Display:	Mr. Dennis Carmody	Membership:	Mrs. Gwen Helm
Field Trips:	Mr. C. T. L. Murphy	O. M. S. I.:	Mr. Ralph S. Mason
Historian:	Mrs. James Running	Program:	Mrs. Thora M. Baker
Junior GSOC:	Dr. John Hammond	Publicity:	Mr. William M. Freer
	Dr. Paul W. Howell	Public Relat.:	Mr. Clarence Phillips
Library		Research:	Mr. Rudolph Erickson
Library Night:		Social:	Mr. Robert Hart
Luncheon:	Mr. Leo Simon	Telephone:	Mr. Greg Hanson

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons:	Every Thursday noon
Field Trips:	Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.
Lectures:	Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.
Library Night:	The third Tuesday evening of each month.
Publication:	The <u>Geological News Letter</u> , published once each month, is the official publication of the Society.

CALENDAR FOR FEBRUARY 1964

- Every Thursday LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue (enter on Taylor Street).
12:00 Noon - Make selection and purchase of food items in the main cafeteria (total price of lunch will vary since all selections are ala carte). Proceed to the Mountain Room, adjacent to the main cafeteria, where the GSOC Luncheon Group meets. These informal get-togethers may include "five-minute" talks on geology and related subjects as well as opportunities to examine and discuss publications and specimens.
For further information call the Luncheons Chairman, Mr. Leo Simon, at 236-0549 (home) or 223-0300 (business).
- February 14 Friday LECTURE - Public Library (room A), 801 S. W. 10th Avenue.
7:30 P. M. - Dr. Parke D. Snavely, Jr. will present an illustrated lecture on "Ancient Volcanism in Western Oregon and Washington". Dr. Snavely is Chief of the Pacific Coast Branch of the U. S. Geological Survey located at Menlo Park, California.
- February 16 Sunday FIELD TRIP - Bus tour to John Day Dam, Arlington, and the Dalles.
By advance reservation only! Cost is \$5.00 per person.
7:45 A. M. - Assemble at Portland State College (S. W. Mill Street at Park Avenue)
8:00 A. M. - Depart for John Day Dam via chartered bus. Dr. Paul W. Howell, Field Trip Leader, will point out and discuss geologic points of interest enroute.
11:00 A. M. - Estimated time of arrival at Project Engineer's Office (next door to Riverview Cafe) at Rufus, Oregon.
Afternoon - Itinerary will include Arlington, Blalock Canyon and The Dalles.
9:00 P. M. - Estimated time of return to Portland.
Bring usual necessary items such as lunches, geology picks, inclement weather gear, cameras, binoculars, et cetera. For more information and reservations contact Dr. Paul Howell, 244-5728 or Mr. Truman Murphy (Field Trips Chairman) at 282-2027.
- February 18 Tuesday LIBRARY NIGHT - Lewis and Clark College, S. W. Palatine Hill Road.
7:30 P. M. - Meet at Peebles Hall (Biology Bldg.) Program to be announced.
- February 28 Friday ANNUAL MEETING AND LECTURE
7:30 P. M. - Presentation of Committee and Officer reports.
8:00 P. M. - Dr. Norman R. Anderson will present an illustrated lecture on "The Washington Cascades". Dr. Anderson is Chairman of the Department of Geology at the University of Puget Sound, Tacoma, Washington.

ADVANCE CALENDAR FOR MARCH 1964

- March 13 Friday ANNUAL BANQUET - Portland State College. See News Letter for details.
- March 17 Tuesday LIBRARY NIGHT - Lewis & Clark College. Program to be announced.
- March 27 Friday LECTURE - Public Library. Speaker and topic to be announced.
- March 28 Saturday FIELD TRIP - Private car caravan to Molalla River area with Dr. John Hammond as Field Trip Leader. Details to be announced.

NEWS OF MEMBERS

By Emily Moltzner

PHIL BROGAN'S NEW BOOK

"East of the Cascades", just published by Binford & Mort, Portland, is already at the top among best sellers in the non-fiction class. Geologists, both amateur and professional, will treasure it for the coverage it gives to the area's geologic features. Lovers of Oregon history will be equally pleased as they read about cattle and sheep men, their vast holdings and their enmity toward each other, the railroad barons Harriman and Hill as they fought over their respective rights up the Deschutes river canyon, Peter Skene Ogden and his trappers, the atrocious crimes of Snake Indian Chief Paulina and many more characters, places, and events. Some seventy photographs enhance this masterpiece of writing.

Author Brogan is already well known to us for his articles in the Sunday Oregonian, for which he is staff correspondent at Bend. One will want to read his book again and again, especially those who have explored the places described, as have members of our Society on numerous field trips, some of them with Brogan's leadership. Many Oregonians who have not been there will want to see for themselves what's going on "East of the Cascades" and we predict a terrific increase of tourists from everywhere to get a look at this unique section of our state. Favorite chapter of the geologically minded will no doubt be the last one entitled "Scenic Geology". We find ourselves lacking the eloquence to do justice to our Phil Brogan's latest achievement.

TEACHING AT PORTLAND STATE

DR. PAUL W. HOWELL, former Society president, a geologist with the US Army Corps of Engineers, is teaching General Geology Laboratory at Portland State College, Tuesdays from 6:30 to 9:30 p. m. We know Paul very well for the time he has graciously contributed by leading field trips and speaking at our meetings. He is thoroughly qualified to give an interesting presentation of the subject he's teaching.

WHAT BECAME OF DR. RUTH HOPSON

Since she left our campout at Denio, Nevada last fall? She reports enthusiastically about her 3-1/2 months adventures. Traveling alone in her car, she explored national parks, caves, mountains, canyons, rivers, finally the Pacific ocean, while adding to her learning about their flora, fauna, and geologic features. To rest from camping, she spent considerable time with relatives in Oklahoma City and Fort Worth. Thanksgiving was a thrilling holiday for her as she set up camp on the south rim of the Grand Canyon. We're anticipating the story of her journey in a forthcoming News Letter and hope she'll give us a program and show some of her many new color slides. She's been on sabbatical leave from teaching geology and natural history at Portland Center, Division of Continuing Education, Oregon State System of Higher Education.

FRED E. MILLER

Gave us a happy surprise by telephoning early Jan. 18th from his home here. He thanked us for our Christmas greeting and said all is well with him, LILLIAN, his wife, and DORIS, their daughter, a student at Oregon State University. But the best news is that they hope to be back home soon, maybe in time for our annual banquet March 13th. Temporarily, they're at Lompoc, California. (Note: Since writing the above, we're happy to announce that Fred has accepted the nomination for Vice President of our Society).

CHARTER MEMBER PASSES

SAM REICHEN passed away New Year's day after an extended illness. He is survived by his widow ANNA of Portland, daughters, MRS. ROBERT GERTSEN, Kimberly, Oregon, and LAURA REICHEN, a chemist with the Federal Government, Washington, D. C. Our sympathy is extended to them.

FIELD TRIP TO YAMHILL AREA

By Hugh Owen*

On Sunday, January 12, a large group of GSOCers assembled in a sunny but drafty parking lot in Newberg, Oregon; Mr. Herbert G. Schlicker, Department of Geology, State of Oregon, led the trip which he had scouted (and timed) for us. The group was fortunate to have his services as he had studied the area and knew exactly where the best exposures and outcrops were located.

There were eighteen cars in the caravan. It was quite an impressive sight, from the vantage point of the leading car, to see them strung out behind on the quiet country roads like a funeral procession which, though apparently lost, unconcernedly ambled on.

The route took us through the rolling farming country in the lower Yamhill valley, past brilliantly green fields of winter wheat, to our first stop at the Yamhill locks on the Yamhill River. These were built in 1900, after many years of delay, and were abandoned in 1920. The locks were constructed too late to be of much use; the railroad had penetrated the valley, the local lumber was largely gone, and improved roads and automobiles were beginning to provide easier transportation. The wooded area around the locks is now a Yamhill County Park.

Next, past hazel-nut orchards where catkins glowed palely in the warm winter's sun, to one of the principal objectives of the trip. This was to see the Spencer sandstone, an Eocene marine deposit. The caravan stopped at several points to examine different exposures such as fine grained sandstone and unoxidized blue sand.

We were now in the vicinity of the Red Hills of Dundee, and the Chehalem Mountains which were of interest because of the ruffled appearance of their slopes due to landslides. A nice contrast with the rolling green hills was the flat valley floor whose plowed fields were black and heavy with the winter's rain.

Lunch was scheduled at Lee Falls on the Tualatin River so, at the town of Gaston, the group turned into the foothills of the Coast Range, following the Tualatin valley which gradually narrowed until there was room only for the stream and the road. The falls appeared to be caused by a basalt sill which here rested upon sedimentary rock. This was a fine place for a winter's picnic. The city of Hillsboro taps the Tualatin two miles above the falls for its water supply and this area is forbidden to intruders.

The last objective took us up Scoggin Creek past a quarry where Gries Ranch fauna of Oligocene age were exposed, then into the property of the big Simson Lumber Company complex. To a person who had not been in a lumber mill before, the piles of great peeler logs, the logging pond, and the special paraphernalia and gear which we passed were of great interest. The caravan now began the ascent of the mountain by a fine hard-surfaced road through the evergreen forest. At the 2,000 foot contour we halted to see an interesting exposure of marine sediments imbedded in lavas, laid down originally in the margin of the sea, and now reposing at this height. On the opposite side of the road the land fell away sharply to a large shelf, a feature caused by a recent landslide.

Proceeding higher we came at the 2,500 foot level to the snow line and, unfortunately, soon ran into cloud. It was decided to go no farther, so while the cars were being turned around some members indulged in snow-ball fights while one energetically created a snow man. It was a pleasant way to end a pleasant day.

* Senior Planner with the Portland City Planning Commission.

TWENTY NINTH ANNUAL BANQUET

This year the Annual Banquet of the Geological Society will be held in the Ball Room of the College Center of Portland State College on Friday, March 13, 1964 beginning at 6:30 P. M. The cost is \$2.50 per person.

The P. S. C. College Center building is located on the west half of the block bounded by S. W. Broadway and Park Avenues (on the east and west) and by Montgomery and Harrison Streets (on the north and south). The building may be entered by three street-level entrances in the middle of the block at Montgomery Street on the north, Broadway Avenue on the east, and Harrison Street on the south. These entrances lead to an elevator which is available for the convenience of those not wishing to climb stairs.

Although this is the social event of the season, we have waived the requirement for white tie and tails. So dress as you wish, but do come prepared to enjoy an excellent program and tasty hot food served in a spacious, well-ventilated room. Various parts will appeal to the epicurean, the scholar, the scientist, the humorist, the aesthetic, and the vocally inclined.

Although everything is planned, the success of the banquet depends on YOU. A grand turnout is expected from the Salem Geological Society and worthy representation from mineral, archeological, and other associations: but we want YOU and we want YOUR friends.

Reserved seat tickets for the banquet may be purchased from Mr. Leo F. Simon. This year's menu provides a choice of entree (swiss steak or grilled halibut) as well as dessert (deep dish cherry pie or vanilla ice cream). Please indicate your preference when making reservations. We wish to stress the fact that if tickets are paid for in advance, preferably at the time of making reservations, entrance to the ball room will be expedited.

Displays will be on exhibit in a large room adjacent to the ball room. Exhibitors will be allowed to set up their displays after 3:00 P. M. on the day of the banquet. Contact Mr. Dennis Carmody, Display Chairman of the Society, if you wish to participate. You are encouraged to provide items for display, even if they are not in conformance with the general theme. Displays will be open for viewing beginning at 5:00 P. M.

To conform to a request by Portland State College, we are requesting that no one (exclusive of members of the table decorating committee) enter the dining area until 6:15 P. M.

Music will be under the direction of Dr. Arthur C. Jones (directing) and Mrs. Lon Hancock (at the piano). They have asked for some new songs, so exercise your talent and write some new words (with a geological flavor) to an old and well-known tune.

The banquet committee has discussed the matter of parking. Since night classes are well attended, parking will be "tight". Pooling cars has been suggested. Rugged drivers, who don't mind a short walk, could discharge their passengers at one of the three street-level entrances to the College Center and then park their cars. Remember the "physical fitness" program.

The Annual Banquet committee chairmen have pooled their talents and energies to provide a successful event. If you wish to help, just a very few hours of time volunteered will lessen the load. Why not contact them NOW while you are thinking about it?

(Committee Chairmen listed on following page.)

Annual Banquet - cont'd

banquet committee	chairmen	business telephone	residence telephone
Decorations	Mrs. Gwen Helm		236-8324
Displays	Mr. Dennis M. Carmody		771-4904
Entertainment and Program	Pres. Albert R. Kenney and Mrs. Laurette Kenney	228-9641	775-5697 775-5697
Hospitality	Mrs. Emily Delano	236-2139	654-1626
Music	Dr. Arthur C. Jones and Mrs. Lon Hancock		222-3100 771-5285
Place Cards and Novelties	Mr. William M. Freer and Mr. Jack D. Pollard	227-7681	232-9601 244-4767
Ticket Sales	Mr. Leo F. Simon	223-0300	236-0549

We'll be seeing you at the 29th GSOC Annual Banquet.

ANNUAL BANQUET CO-CHAIRMEN	Mr. Paul E. Dunn and Mrs. May Dunn	234-3361 ext. 347	285-5008 285-5008
----------------------------------	--	----------------------	----------------------

GEOLOGICAL SOCIETY RECEIVES FAVORABLE COMMENT

DR. NORMAN R. ANDERSON, Chairman, Dept. of Geology of the University of Puget Sound at Tacoma, Wash., in his letter of acceptance January 17, compliments us "I must say that your program for this year appears to have been excellent." . . . "I have heard many favorable comments about The Geological Society of the Oregon Country from several sources and I am looking forward to the opportunity to speak to your group." Dr. Anderson will lecture Friday, February 28, about "The Washington Cascades".

E. M.

VISITORS FROM SALEM

Welcome guests from the Salem Geological Society at our January 24th Friday Library meeting were: Mr. and Mrs. Walter E. Roberts, Mr. and Mrs. Winford Richardson, and Miss Elizabeth Estep, who all came with our own Reynolds Chmart -- who belongs to both societies -- to hear Len Ramp tell us about the Klamath Mountains.

W. M. F.

INFORMATION FOR FEBRUARY FIELD TRIP

The field trip for the month will be via chartered Trailways bus to John Day Dam, about twenty five miles east of The Dalles on Highway U.S. 30 (Interstate 80N). The tour of the dam project will be under the guidance of the Engineer in charge of the project being built by the U.S. Army Corps of Engineers.

The remainder of the day will be spent visiting various road relocations on the upstream side of the dam. Dr. Paul W. Howell, Field Trip Leader, will also take the group to Arlington, Blalock Canyon, and some points of interest near The Dalles if time permits.

Since this trip is via chartered bus, reservations must be made in advance. See "Calendar for February 1964" (page 9 of this issue) for details.

MEMBERSHIP ROSTER

name	street address	city	state	telephone
NEW MEMBERS				
Barr, Mr. & Mrs. Donald D.	12438 S. W. Orchard Hill Rd.	Lake Oswego,	Oregon	247-2785
Fagan, Mr. & Mrs. Mike	8107 S. E. Taylor Court	Portland 15,	Oregon	255-5752
Joenke, Mr. & Mrs. Henry H.	2320 S. E. Taylor Street	Portland,	Oregon	232-5570

NEWS LETTER SUBSCRIBER

Oregon State System of Higher Education	Post Office Box 451	Corvallis,	Oregon
---	---------------------	------------	--------

RESIGNATIONS

Jorgens, Mr. Fred J.

Trainer, Mr. & Mrs. Cecil

DUES REMINDER

Annual dues for membership in the Geological Society are now due and payable to the Treasurer.

Regular annual dues, single or family memberships, are \$5.00 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington counties of Oregon; Clark and Skamania counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above-mentioned counties. Junior memberships are still \$2.00.

Checks should be made payable to:

Geological Society of the Oregon Country

and should be mailed prior to March 1, 1964 to:

Miss Marjorie Fessenden
743 S. W. Maplecrest Court
Portland,
Oregon - 97219

March 1964

✓



Official Publication of the Geological Society of the Oregon Country

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

OFFICERS OF THE EXECUTIVE BOARD 1963 - 64

President:	Mr. Albert R. Kenney	4125 S. E. Gladstone, Portland 14	775-5697
Vice President:	Mr. Emory Strong	2753 N. E. Wiberg Lane, Portland 13	288-4605
Secretary:	Miss Shirley O'Dell	2140 S. W. Palatine St., Portland 19	246-1339
Treasurer:	Miss Marjorie A. Fessenden	743 S. W. Maplecrest Ct., Portland 17	246-2987
Directors:	(elected) Mr. Leo Simon (1 yr.), Mr. J. R. Rentsch (2 yr.), Mr. Fred Miller (3 yr.) (past presidents) Dr. John Hammond, Mr. Leonard Delano		

STAFF OF THE GEOLOGICAL NEWSLETTER

Editor:	Mr. Irving G. Ewen	4128 N. E. 76th Avenue, Portland 18	281-7098
Asst. Editor:	Mr. William M. Freer	2405 S. E. Taylor St., Portland 14	232-9601
News of Members:	Mrs. Emily Moltzner	7032 S. E. Stark Street, Portland 16	254-2362
Art Advisor:	Mr. Robert B. Anderson	303 Wilcox Building, Portland 4	222-7095
Business Mgr.:	Mr. Robert F. Wilbur	2020 S. E. Salmon Street, Portland 14	235-7264

COMMITTEE CHAIRMEN

Display:	Mr. Dennis Carmody	Membership:	Mrs. Gwen Helm
Field Trips:	Mr. C. T. L. Murphy	O. M. S. I.:	Mr. Ralph S. Mason
Historian:	Mrs. James Running	Program:	Mrs. Thora M. Baker
Junior GSOC:	Dr. John Hammond	Publicity:	Mr. William M. Freer
	Dr. Paul W. Howell	Public Relat.:	Mr. Clarence Phillips
Library		Research:	Mr. Rudolph Erickson
Library Night:		Social:	Mr. Robert Hart
Luncheon:	Mr. Leo Simon		Mr. Greg Hanson
		Telephone:	

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons:	Every Thursday noon
Field Trips:	Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.
Lectures:	Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.
Library Night:	The third Tuesday evening of each month.
Publication:	The <u>Geological News Letter</u> , published once each month, is the official publication of the Society.

CALENDAR FOR MARCH 1964

- Every Thursday LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue (enter on Taylor Street).
12:00 Noon - Selection and purchase of food items is made in main cafeteria (total price varies as food items are priced individually). The luncheon group dines in the "Mountain Room" (past the "Foothills Room" adjacent to the main cafeteria). These informal gatherings will often include "five-minute" talks on geology and related subjects of interest.
For more information phone the Luncheons Chairman, Mr. Leo F. Simon, at 236-0549 (residence) or 223-0300 (office).
- March 13 Friday ANNUAL BANQUET - Portland State College Center Ball Room.
S. W. Park Avenue at Montgomery Street.
5:00 P. M. - Displays open for viewing in room adjacent to ball room.
6:30 P. M. - Twenty Ninth Annual Banquet commences in the ball room. Guest speaker will be Mr. Hollis M. Dole, Director of the State of Oregon Department of Geology and Mineral Industries. Mr. C. T. L. Murphy will officiate as Master of Ceremonies.
For details see "Twenty Ninth Annual Banquet" (page 12) in the February, 1964 issue of the Geological News Letter. For more information phone the Annual Banquet Co-Chairmen, Mr. & Mrs. Paul Dunn at 285-5008.
- March 17 Tuesday LIBRARY NIGHT - Lewis and Clark College, S. W. Palatine Hill Road.
7:30 P. M. - Meet at Peeble's Hall (Biology Building) on the campus. Program details to be announced.
For information, phone the Library Night Chairman, Mr. Murray Miller, at 656-6724.
- March 27 Friday LECTURE - Public Library (room A), 801 S. W. 10th Avenue.
7:30 P. M. - Mr. Ralph S. Mason, State Mining Engineer with the State of Oregon Department of Geology and Mineral Industries, will present a lecture entitled "Man and His Minerals". Mr. Mason's talk will be the lead-off lecture of a new series being presented by the Society.
- March 28 Saturday FIELD TRIP - Molalla River area via private car caravan.
8.45 A. M. - Assemble at Molalla High School at the town of Molalla, Oregon on State Highway 211, approximately one mile east of the junction with State Highway 213 (east from Woodburn or south from Oregon City).
9:00 A. M. - Depart for a tour of the Molalla River Watershed with Dr. John Hammond as Field Trip Leader. Itinerary will include visiting some abandoned mine sites.
Be prepared with usual equipment including lunches, geology picks, cameras, hiking shoes, and rain gear in the event of inclement weather. For more information phone the Field Trips Chairman, Mr. C. T. L. Murphy at 282-2027 or the Field Trip Leader, Dr. John Hammond at 654-5570.

ADVANCE CALENDAR FOR APRIL 1964

- Every Thurs. LUNCHEON - As usual at Y. M. C. A. See current calendar for details.
April 10, Fri. LECTURE - Public Library. Speaker and topic to be announced.
April 21, Tues. LIBRARY NIGHT - Lewis & Clark College. Program to be announced.

NEWS OF MEMBERS

By Emily Moltzner

BONANZA IN OIL OFF NORTHWEST SHORES?

Our State of Oregon Dept. of Geology & Mineral Industries, headed by State Geologist HOLLIS M. DOLE, is currently the center of interest for oil producers and investors because of terrific oil potentialities off the shores of Oregon and Washington. Oregon's available acres number 836,000 (1,300 sq. mi.); Washington's 254,000 (396 sq. mi.), making a total of 1,090,000 acres. Value of this acreage has been set by the federal government at \$8,720,000. For detailed account, see article in February Ore Bin, official monthly publication of SOODOGOMI.

ALBERT (AL) KENNEY and JIM ANDERSON TO APPEAR ON TELEVISION

Our just retired president KENNEY, and ANDERSON, naturalist with OMSI, led a bus trip Feb. 22 to fossil-bearing Beverly Beach for 8th to 12th grade students. Watch for them on KATU, Channel 2, Thursday, March 12th, 7:00 to 7:30 p. m.

LON HANCOCK'S VOICE PERPETUATED

LOREN D. MCKINLEY, OMSI Director, in his letter of Feb. 5th, with copy to our society, thanks MRS. L. R. HENDERSHOTT, Sec. of American Auricular* Society, for its gift in memory of MRS. JOHN L. KARNOPP, namely, a tape machine. It will be installed in the LON HANCOCK ROOM, where his voice "will explain the exhibits and add a great deal of value and personality to this fine collection of paleontological specimens." Thus the voice of our beloved "LON" goes on for us and for posterity. (* Auricular - Of or pertaining to the ear or hearing)

IF YOU LIKE DIRT . . .

New member JASPER L. HOLLAND states you'll appreciate "PCA Soil Primer", which will help you identify, classify, sample, test and analyze soil. It's free from the Portland Cement Ass'n., 33 W. Grand Ave., Chicago. Also "The Identification of Rock Types", free, from the US Dept. of Commerce, Bureau of Public Roads, US Gov't. Prtg. Off., Washington, D. C. HOLLAND and DAN GRISWOLD, both with our local US Soil Conservation Dept., are scheduled to lead a field trip in June.

NEWS LETTER'S NEW COVER CAUSING COMMENTS

We've overheard: (1) "I like the old one better -- I'm used to it -- it's easier to read." (2) "I'm not sure -- we all believe in change. Geology teaches that, so I'm considering it further." (3) "It resembles a certain local publication also concerned with geology and mining." (4) "Makes me think of digging. First issue has almost black background suggestive of carboniferous era. The second, with blue tinge, could indicate clay wherein diamonds are found." (5) "Maybe it's modern art, which I don't understand." Well -- anyway -- it's the result of a lot of work by ROBERT BOYD (BOB) ANDERSON, who makes his living as an artist. Any comments?

TRAVELERS

Our Secretary, SHIRLEY O'DELL, is vacationing in Mexico, Cozumel and Guatamala, viewing famous archeological features and other points of interest. Que se divierta mucho, Senorita Shirley. (Meaning: A pleasant stay) . . . PAUL KEYSER, after visiting his brother in Los Angeles, flew to Winter Park, Florida. He'll be home about banquet time . . . AVA CROWE mailed a postal card from Kanagawa, Japan, Feb. 9th, stating she's on her way home from her 3-months cruise by freighter . . . CASPER H. MAGENNIS is home from a 6-months tour of the Holy Land and around the world via Australia, the Far East and Hawaii . . . Former GSOC President FORD WILSON and ALICE, his wife, send greetings from Hawaii, which they will leave March 16th for 2 months in Australia, followed by 3 months on our East Coast . . . PAUL and MAY DUNN recently made two car trips into Idaho to Pend Oreille Lake, Coeur D'Alene, rivers of the same names, Sandpoint, and Lewiston. Especially, they liked the view of Snake River Canyon and the quaint mining town of Warren with its one industrial building which was restaurant-bar-museum all in one.

INVENTORY OF 1963
by William M. Freer*

Last year at this time the NEWSLETTER published an inventory of the previous year's activities; a kind of a balance sheet to find out where the Society stood. It seemed like such a good idea that this year we decided to do it again. Last year the question was: Could the Society maintain the forward momentum in 1963 that Leonard Delano had given it in 1962. We know that generally it has, in some areas exceeding it, in others not. We feel that hard-working Al Kenney and his staff deserve a lot of credit and gratitude for giving us a fine administration. The question now is: Will we give Irv Ewen the support necessary to continue the forward momentum and the high standard of quality and excellence to which we have now become accustomed. To this, of course, there can be but one answer -- we hope. But to get on with our inventory --

The Friday evening Library lecture program for 1963 was of exceptionally fine academic quality, the motif -- an old dream of Al Kenney's -- being the development of the Physiographic Provinces of Oregon. The excellence of these lectures, given by authorities in their fields from Washington, Oregon, and California, gave the program a high geologic tone most befitting the objectives of the Society. Of the lectures outside of the physiographic series, the most memorable one was on an evening in the auditorium of the Public Service Building where we took a trip with Mr. Buz Sanderson of the U. S. Geological Survey through the Grand Canyon of the Colorado -- a wondrous, never-to-be-forgotten journey. Mrs. Thora Baker, our energetic Program Chairman should have the quiet satisfaction of knowing that her difficult task has been well done.

The 1963 field trip program continued its high standard of excellence under the sure guidance of Truman Murphy with valuable assistance from Al Kenney, Dr. Paul Howell, and others. These trips ranged Oregon from the two-hour open-house given by the State Department of Geology and Mineral Industries in December to the week-long tour of the Steens Mountain country in September. Within the Society there is a select group bound by an enviable bond that the rest of us don't have. These are those who went on the first President's Annual Campout to Southeastern Oregon and the Steens Mountains and shared a unique and invaluable experience in fellowship in a geologic wonderland. This now celebrated trip, whose memories will last for a lifetime, was an unqualified success, and we hope that the President's Annual Campout -- another of Al Kenney's dreams will be repeated yearly until it has become a hallowed tradition of the Society. Because these superb field trips are so smoothly and capably conducted they belie the hours of work and planning that go into their preparation, and for this we should be grateful to Truman and his crew.

Because there was no one to manage the program and unfortunately it had to fend for itself, the third Tuesday Library Nights at Lewis and Clark did not measure up to the splendid quality of the year before when Dr. Gilchrist had them. Though there were some good ones, we slipped a little here. We should try to improve this program.

On the other hand, the Thursday Luncheons under Leo Simon are thriving and they are gay affairs. They are well attended and make a good clearing-house for the latest news. They are also a valuable point of contact for old friends passing through town. The Thursday Luncheon at the YMCA is recommended to all GSOCers who must dine downtown at noon.

We are sorry to have to report that the Junior GSOC program begun so auspiciously last year by Dr. John Hammond has slumped this year. This is in no way the fault of Dr. Hammond, but because of general apathy among the Juniors. When they want the program, they can have it.

Publicity, which should have been better last year, was better this year. In fact, it sometimes ran wild with the Publicity Chairman trying desperately to catch up with it. Dick Fagan of the Oregon Journal and our membership was particularly good to us, mentioning us several times in his column, Mill Ends. In addition, when he went on the President's Campout, he featured the trip in seven full columns of Mill Ends, one of which carried a series of Leonard Delano photos. Phil Brogan of the Bend Bulletin, and also of our membership, contributed several fine articles and news stories of the trip to the Oregonian and other papers. Martin Clark of the Journal was generous in giving

* Assistant Editor.

Inventory of 1963 - cont'd.

us space in Town Topics, and through the year several other news stories and photos have been published in both papers. Never before have we had such good publicity, and getting our name before the public is important to our growth. In the Society are three persons to whom the Publicity Chairman will be forever grateful. They are Mr. and Mrs. Paul Dunn and Miss Hazel Zimmer, who, on September 5th, 1963, obligingly and beyond the call of duty got themselves scalded by the Crump geyser, thus splashing us over the front pages of all the papers.

The Chairmanship of the Social Committee, at first shared by Greg Hanson and Bob Hart, later reverted back to Elizabeth Gilliam and Emily Moltzner, who just naturally do a bang-up job. They skillfully handle this function with grace and finesse. All guests are met, registered on guest cards, and introduced to the meeting by Elizabeth. They are sent calendars for three months afterward. The guest-card system evolved by Emily has been the means of bringing us new membership in the amount of eighteen couples, nine singles and two juniors during the past year. Emily and Elizabeth initiated the coffee hour after meetings in the Central Library, an unqualified success and a great improvement on Robert's, where we used to congregate, and where one could only talk to the people seated close by. If there is any possible way to improve this important function, these two girls will do it.

Gwen Helm has had a successful year as Chairman of the Membership Committee, during which forty-four new enrollments were made, the same as last year. However, our separations were twenty-four this year -- ten more than last year -- leaving us a net gain of twenty, for a total of 248 memberships. This is a good rate of increase; we wouldn't want to grow so fast that we lost our coordination. Sometimes separations are involuntary, and this year four of them were. They have gone on the Great Field Trip, and we won't see them again. Their names are Jim Galt, Hilbert Hanson, Charter Member Sam Reichen, and Past President Bill Clark.

Our library out at Lewis and Clark College has been moved to new and more attractive surroundings -- upstairs in the same building -- and is more than adequately staffed by Mrs. Murray Miller and Miss Marie Wagner. An excellent job of cataloging is now in progress.

At the finest of all banquets last March -- kudos to Marjorie Fessenden -- Dennis Carmody took advantage of the opportunity to put on a really marvelous display of geologic specimens. It was a very impressive show in itself, and he tells us that he intends to do it again at the coming banquet. Cheers for Dennis!

Mrs. Leslie Davis and her Telephone Committee stand ready to give us emergency service when we need it; Ralph Mason is our liaison with OMSI, and Rudolph Erickson in Research, Clarence Phillips in Public Relations, and Mrs. Jim Running, our Historian, carry out their appointed duties, we are sure, in an effective and commendable fashion.

The NEWSLETTER has a new cover designed by Bob Anderson, and is looking forward to a bright new year. We will improve it if and when and as we can. We have undoubtedly made some impressive gains this year. We can feel it in our growth in membership; in the quality of our lecture series; in general interest as shown by good attendance at all functions, and by our growing reputation, which gives us greater respect and increased status. We are a going concern. We are doing well, very well indeed -- but we must keep it up. And to Al Kenney and Company, a well deserved "Well Done!"

0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0

PACIFIC UNIVERSITY RECEIVES GIFT OF DR. CONDON FOSSILS

By a recent donation by Mrs. W. Claude Adams and the McCornack family, heirs of Dr. Thomas Condon, Pacific University at Forest Grove has become the possessor of the collection of forty-four fossil specimens of Dr. Condon's which, since Mrs. Ellen Condon McCornack's death, has been in the custody of Dr. W. Claude Adams whose sister was the wife of the grandson of Dr. Condon.

The major and very extensive collection belonging to Dr. Condon was given to the University of Oregon and the specimens in the small collection given to Pacific University were only part of an overflow collection owned by Ellen Condon McCornack, daughter of Dr. Condon. Many of the specimens are duplicates of those at the University of Oregon, but three of the fossils are the originals from which photos were made and used as illustrations in Dr. Condon's book, The Two Islands, hence are especially valuable.

One, in particular, the imprint of the large aralia leaf, has a definite mark of identification. The large specimen had been broken in two down the middle (probably in exhuming the rock) and had been glued together, with the crack plainly visible. The picture of this specimen as Plate V in The Two Islands shows the identical crack as it appears in the original specimen, which is evidence enough that it was the fossil used. Furthermore, the identifying numbers and notes of Mrs. McCornack corroborate the authenticity of these specimens. In the compilation of an inventory listing of the items to accompany the collection, Dr. Condon's original catalog numbers on the specimens, done in yellow paint, were retained, which tallied with the numbers listed in Mrs. McCornack's catalog.

Dr. Adams felt for some time that this minor though important group of fossils should have a permanent home, preferably in some institution where it could be used for teaching purposes, rather than in a private museum, such as his, or in some public museum where it would get only a casual scanning.

Because Dr. Condon had occupied the chair of geology at Pacific University from 1873 to 1876 while he was State Geologist and before he went to the University of Oregon to teach, it was felt that Pacific University would be the most appropriate institution in which to place the collection. The McCornack family and Mrs. Adams concurred in this thought and ascertained that Pacific University would be honored and delighted to receive the gift. Accordingly, on November 21, 1963, the presentation was made, together with two large display cabinets which Mrs. Adams donated.

Letters of thanks and deep appreciation for the gift have been received by the donors from Dr. M. A. F. Ritchie, President of Pacific University, Dr. John R. Roberts, Head of the Biology Department, and Professor Jacob Bauer of the Biology Department.

In the years that the collection has been in the possession of Dr. and Mrs. Adams, it has attracted considerable attention, having been viewed by many groups, including the Geological Society, and numbers of interested individuals. It has been on public display twice, once before the Geological Society. Other requests for public display have been refused, owing to the frailty of some of the specimens and the risk involved in transporting them about.

It may be a matter of interest to the members of the Society to know that on January 27 Dr. Thomas Condon was the subject of a sketch given by story-teller Nelson Olmsted on one of the radio broadcasts in the series of programs, Stories of Pacific Powerland, presented by Pacific Power and Light Company over KOIN.

The narrator announced that the story would concern sermons, stones and science, and unfolded facts dealing with Dr. Condon's ministry, then his interest in geology and in time his total absorption in geological research and the scientific exploration of the John Day fossil beds, which resulted in his wonderful fossil discoveries and the enrichment of our knowledge of ages long passed. His services as State Geologist and as Professor of Geology at the University of Oregon and his contributions to the scientific world were given due recognition by the narrator.

The Pacific Power and Light Company plans to repeat this broadcast in June, the date not yet decided on. This will give anyone who missed the first broadcast an opportunity to hear the second program.

As one of the officials of the sponsoring company said, "I am sure everyone in Oregon who heard this show gained a new respect for the great things that Dr. Condon did for this

Pacific University Receives Gift of Dr. Condon Fossils -

area."

This particular series of broadcasts is presented on KOIN Monday, Wednesday and Friday at 5:35 p. m.

- - Mrs. W. Claude Adams

* * * * *

LUNCHEON NOTES

By Elizabeth Gilliam

KENNETH N. PHILLIPS, formerly with the U.S. Geological Survey, a charter member and past president, whom we haven't seen for quite a while, brought a couple of interesting items for our viewing. A volcanic bomb (caused by the expansion of moisture inside) from the Diamond Craters in the Blitzen country near Burns. Also a sample of river sand and silt from Rezuk, Turkey out of the Tigris River just above where it goes into Syria. He secured this sand when a Consultant for the Point-4 Program in 1957 in that area.

DR. RUTH HOPSON gave us a graphic description of her wanderings over various parts of the United States. In anticipation of her story in a forthcoming news letter we shall say no more.

Our first lady, LAURETTE KENNEY, made an official presentation of a bell to Chairman LEO SIMON to enable him to call the meeting to order without using the lowly table knife he has been using and not getting results.

FAY LIBBEY, past President and Fellow, formerly Director of the Department of Geology and Mineral Industries, talked about "BODIE and ESMERALDA", a book written in 1878 by Joseph Wasson, a well-known mining man in San Francisco. Bodie is in Inyo County, California and Esmeralda in Nevada. At that time they were thriving communities but are now ghost towns. An unusual item was a facsimile of a stock certificate of the Bodie Bluff Consolidated Mining Co. of which Leland Stanford was President. LIBBEY read an excerpt from the book as follows: "These jolly miners were the happiest set of bachelors imaginable . . . cooked their own food, did their washing, mended their clothes, made their beds, etc . . . thus proving that woman is an unnecessary and expensive institution and ought to be abolished by law . . ."

The writer brought two specimens of amethysts, one a geode resembling a partially opened clam, demonstrating the dull ugly exterior but showing the beautiful dark purple crystals within. The other, of amethystine quartz, was on a geode base with individual crystals of 3/4" to 1-1/2" hexagons projecting into the interior of the geode. Their color is deep violet, blending into a lighter hue, even to transparency. These amethysts are from Brazil and Uruguay and are the property of GLENN STEELE of the Agate and Mineral Society; they were loaned to us by Jensen Jewelers, 805 S. W. Alder, who displayed them throughout February.

* * * * *

NEWS OF MEMBERS - cont'd

CONVALESCING

RUDOLPH (RUDIE) ERICKSON, absent for some time, was along with his wife JANE on our field trip to John Day Dam . . . MRS ALBERT (STELLA) KEEN can receive visitors at Milwaukie Convalescent Hospital, 12345 Stanley Ave., Milwaukie . . . We're still missing MAURICE ALBERTSON, who enlivened so many of our luncheons with short talks on diverse subjects . . . DR. J. C. (JACK) STEVENS, as of this writing, is recovering rapidly from a second operation, (the first in early November) and assured the writer he plans on coming to our banquet. We're anticipating welcoming this indomitable young man who is only 89 years of age!

If you'd like to send cards to any of these, you'll find their addresses in our roster.

GOLDENWEDS - THE MILLERS (HUGH and HAZEL) observed their 50th anniversary Feb. 25th. For 23 of these happy years we've been privileged to have them as members and wish them many more anniversaries.

(MORE P. 22)

JOHN DAY DAM FIELD TRIP

Now hear this! Now hear this!

The invasion took place Sunday, February 16 at 1050 hours. There was no opposition from the three unsuspecting girls of the cafe as a group of about 90 Geological Society members converged without warning on the Riverside Cafe in Rufus. The convoy consisted of groups from Salem and Portland, arriving in two chartered busses and by auto.

"That was fun! Who are you?" asked one pretty waitress, emerging from the ruins of a once well stocked kitchen.

Mr. Richard Gullixson, Engineering Geologist of the Walla Walla District, Corps of Engineers, escorted the convoy to the John Day Dam Project office. He introduced his assistant, Mr. Lou Gustafson, and the project Geologist, Mr. Leonard Filasetta. These men discussed the geologist's part in the choosing and preparation of the site for the dam.

Four years of drilling and exploration were required before work on the dam could be started. The greatest problem encountered was a deep trench caused by erosion of a fault breccia zone related to thrusting blocks of rocks of the Columbia Fault. This trench was found to extend to a depth a little below sea level. It was filled with boulders, gravel, sand and cementing agents. It was necessary to know the exact limits of this trench before the axis could be fixed. The axis of the dam is now far upstream from its originally proposed location.

After being briefed on the hazards to be encountered at the site the group was allowed to visit the dam, now partially constructed. The John Day Dam, a \$410,000,000 multi-purpose structure is now scheduled to be finished in 1967 -- a ten year project.

Group chairmen for the trip were Mr. Reynolds Ohmart of the Salem Geological Society and Mr. Truman Murphy of the GSOC. Trip leaders were Dr. Paul Howell and Mr. Albert Kenney, both of Portland.

- - Margaret Howell

MEMBERSHIP ROSTER

name	street address	city	state	phone
NEW MEMBERS				
Griffiths, Mrs. A. Jean	7706 North Emerald St.	Portland 17	Oregon	289-8509
Holland, Mr. & Mrs. Jasper L.	1820 S. W. Wunwood	Portland 25	Oregon	644-7270
Heiberg, Mr. & Mrs. Harry M.	8105 S. W. Brentwood St.	Portland 25	Oregon	292-2560
Perrault, Mr. & Mrs. Mark	9000 N. W. Cornell Road	Portland,	Oregon	292-4841
Roeder, Miss Rosemary	3920 S. W. Condor Avenue	Portland 1,	Oregon	223-8316
Soper, Mr. Elmer Gail	Post Office Box 122	Banks,	Oregon	324-2412
Zimmerman, Mr. W. F.	3135 N. E. 41st Avenue	Portland,	Oregon	287-9226
O'Brien, Mr. William O. *	18101 S. E. Catfield Rd.	Milwaukie,	Oregon	656-8027

ADDRESS CHANGE OR CORRECTION

Smith, Mrs. Ben F.	210 Euclid, Apt. E.	Long Beach 3,	Calif.
Willson, Mr. & Mrs. Kenneth	Post Office Box 148	St. Helena,	Calif.
Jaenke, Mr. & Mrs. Henry			

RESIGNATIONS

Ayedovich, Mr. & Mrs. Myer	Lawrence, Mr. & Mrs. Donald B.
Bronkema, The Reverend Rosalie	Newell, Mr. Roger A.
Hungerford, Mr. & Mrs. Bob	Strasser, , Mr. Rob
Brown, Mr. & Mrs. Jesse L.	Pagni, Mr. & Mrs. Earl E.
Godman, Miss Effie J.	Sweet, Mr. & Mrs. Chas. E., Jr.
Johnston, Miss Alice	Wimmer, Mr. Joseph

* Junior Member

SOCIAL COMMITTEE REPORT
March 1, 1963 through February 29, 1964

The year began with Gregory (Greg) Hanson as Chairman, Bob Hart as Assistant, with Emily Moltzner (Social Chairman - 1963-64) standing by. Greg and Bob are both holdovers.

In June the writer was added as greeter. In October, because of Greg's departure for Japan, the writer was appointed Chairman. Present activity has been greeting and introduction of guests and new members with particular stress on getting names and addresses for the purpose of mailing calendars. The guest cards have proved to be the most effective means of keeping contact with guests and visitors as attested by the number transferred from guest cards to membership roster. Names of guests are obtained not only at Friday meetings, but at all other activities, as well as by personal contact by members of the Committee.

An innovation is the establishment of the social hour and refreshments following Friday meetings, which to date is a great success.

Appreciation is expressed to Mrs. Helengrant Weaver, Head of Central Library's Room Services Department, and her assistant, Mrs. Emily Wiggins, for their courtesy and cooperation in posting our calendar of events on the bulletin board in the foyer of the Library, giving them to interested parties, and making arrangements for use of the hall.

Thanks to Nell Conley, Pacific Northwest Bell, for pin-up name cards.

Also to Irving (Irv) G. Ewen for personally delivering the calendars to Mrs. Moltzner for her distribution.

Also to William (Bill) M. Freer for excellent publicity.

Acknowledgments go to Jack Pollard for photographs and to Bob Wilbur for transportation.

To all ladies who baked and contributed generous quantities of cookies and assisted with serving; to Hugh Owen who also helped; Doris Jones for the beautiful tableclothes; May Dunn for punch bowl.

To Hot Coffee Service for dependable delivery and 10¢ a gallon discount because of our being a non-profit organization.

Elizabeth Gilliam, Social Chairman

* * * * *

NEWS OF MEMBERS - cont'd

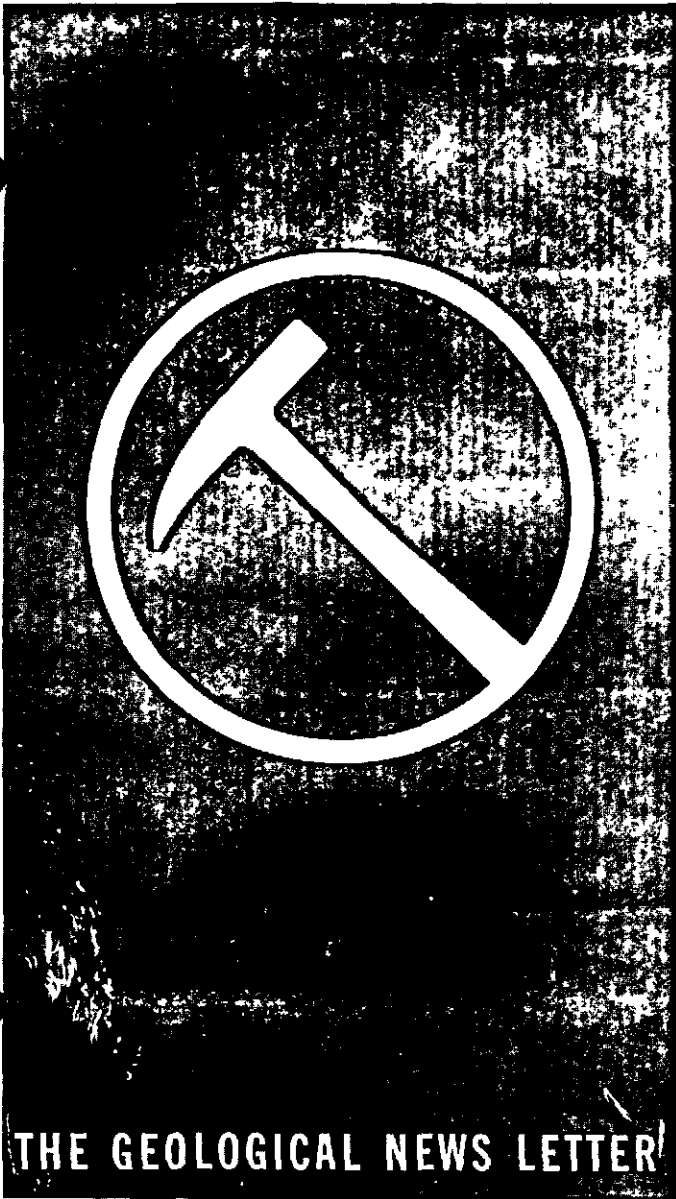
NEWLYWEDS - February 15th, CAROL ELIZABETH GASTON, at the home of her parents, Mr. and Mrs. Elmer Gaston of Gresham, became the bride of GREGORY ALAN BERG, son of Mr. and Mrs. Oscar K. (Wilma) Berg. To the happy couple, living in Portland, we express our felicitations.

GREG HANSON made it back from Nippon just in time for the Friday, February 28th Library lecture. He has lately been sojourning in Sapporo -- Portland's sister city, Kyoto, Tokyo, and Kanazawa, where he has been assisting the SSS (the Japanese FBI), or they have been assisting him -- we are not sure just which. He has lost thirty pounds and is looking fit, though slightly Japanese, and says he has been studying judo, jujitsu, and karate, or how ever you spell it. Under these circumstances we have decided to be nice to him.

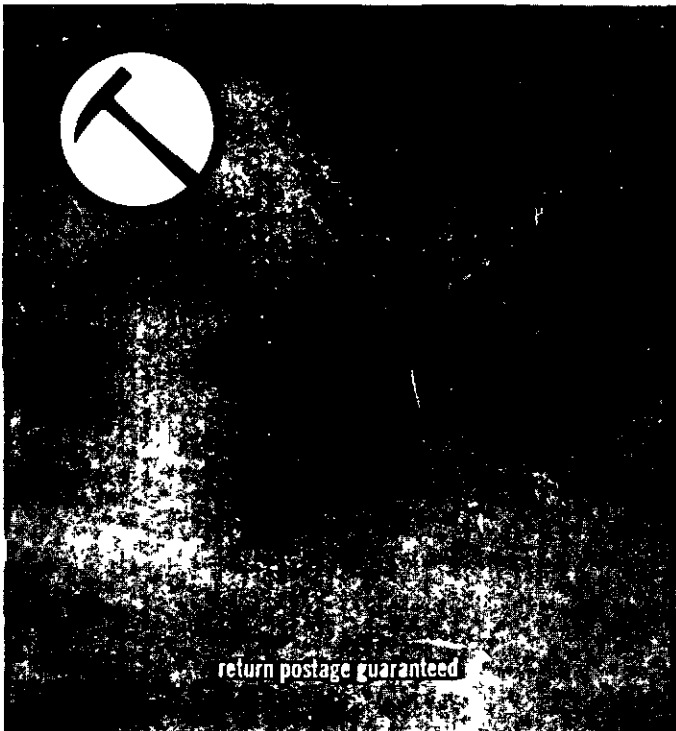
MR. and MRS. FRANKLIN BROWN are the parents of a daughter, JOANNE MAUREE, born February 24th. Franklin is a past president of our Society.

* * * * *

✓



2020 S. E. SALMON STREET, PORTLAND, OREGON 97214



PROPERTY OF LIBRARY
 DEPT. OF GEOL. & MIN. INDUST.
 STATE OFFICE BLDG., PORTLAND, OREG.

Official Publication of the Geological Society of the Oregon Country

Non-Profit Org.
 U. S. POSTAGE
 PAID
 Portland, Oregon
 Permit No. 999

State of Oregon
 Dept. of Geology & Mineral Industries
 1069 State Office Bldg.
 Portland 1, Oregon

RULES FOR G. S. O. C. FIELD TRIPS VIA PRIVATE CAR CARAVANS

GENERAL INFORMATION

The following "rules of the caravan" are presented in the interest of making private car caravan type field trips operate more efficiently and safely with a minimum of inconvenience to all participating. Your compliance with these "rules", either as driver of a car or as a passenger, will be appreciated.

Common sense should be a general "rule of thumb" at all times. Don't commit an unsafe act which might endanger yourself or someone else.

Field trips are generally well scouted ahead of time by a qualified person. This extra effort and expense has been made to provide a more enlightening and efficiently-run field trip.

RULES OF THE CARAVAN

1. Everyone:

Each driver and passenger is asked to read and familiarize himself with the "rules". Save each copy by placing it in the glove compartment or other safe place for future reference.

2. All cars:

G. S. O. C. Bumper Cards are required to be placed on the front and rear bumpers of all cars participating in the caravan in such a manner as to be visible to the car ahead and the car following.

Bumper Cards are helpful in keeping the caravan together and in locating and recognizing lost cars when necessary. Bumper cards are available from the Field Trips Chairman for a nominal sum.

3. Assembly Point:

Each private car caravan will depart from a meeting place previously announced at the meetings or published in the GSOC Newsletter. Arrive early so that caravan can be organized and depart on time.

4. Organizing the Caravan:

The Field Trips Chairman or trip leader will drive or ride in the lead car.

The Field Trips Chairman or trip leader will designate a member to drive the end car of the caravan, preferably someone who is familiar with the itinerary to be travelled.

All other cars participating in the caravan should be between the lead and end cars.

Prior to departure, the Field Trips Chairman or trip leader will assemble the group for orientation about the trip.

5. Departure:

Caravans will depart from the assembly point as close as possible to the time announced or published. It is important to maintain a schedule which has been worked out ahead of time.

6. Enroute:

Lead car with Field Trips Chairman or trip leader will set the pace.

Maintain a safe distance between cars at all times while driving, dependent upon good judgement and taking into account all conditions.

All drivers should keep the vehicle ahead and behind in sight at all times. Jotting down the license number of each vehicle is helpful.

When turning onto another road or highway, wait until car behind catches up and is able to see the turn you are making.

If the car behind you is not visible, STOP, and wait. If after waiting a reasonable length of time, it does not catch up, drive back and investigate reason. If this procedure is followed, the entire caravan will ultimately stop until the situation is resolved.

7. Lecture Stops:

At each lecture stop, the lead car will park as far forward as necessary so that lead and end cars will be equidistant from the point of subject of the stop.

Park as close together as possible (unless directed otherwise) leaving a little room for passageway between cars. Parking space is usually at a premium.

When on foot, everyone should stay off the road or use caution in crossing.

At the lecture point, the trip leader will wait until all are assembled before starting the talk.

8. Lunch Stops and Rest Stops:

Park as directed depending upon conditions (parking lot, open field, etc.).

Field Trips Chairman or trip leader will assemble the group to make announcements as to the nature of the stop and the intended departure time.

9. Return:

At the last lecture or rest stop, the Field Trips Chairman or trip leader will assemble the group for final announcements.

Usually the caravan is disbanded at this time, permitting each carload to return home individually via one of several suggested routes.

CALENDAR FOR APRIL 1964

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue (enter on Taylor Street).
12.00 Noon - Make selection and purchase of food items in the main cafeteria (price will vary as food items are ala carte). Proceed past the "Foothills Room" to the "Mountain Room" (next to the main cafeteria.) Luncheon groups examine and discuss specimens and publications and occasionally hear "five-minute" talks on geology and related subjects.
For additional information phone Mr. Leo Simon, Luncheons Chairman, at 236-0549 (home) or 223-0300 (office).

April 10
Friday

LECTURE - Public Library (room A), 801 S. W. 10th Avenue.
7:30 P. M. - Mr. Hugh Owen, Senior Planner with the City of Portland Planning Commission, will present an illustrated lecture about the "West Indies". Mr. Owen's travelogue, although a slight departure from the new lecture series, will take the group on a comfortable "armchair cruise" through some very interesting and colorful areas.
9:00 P. M. - Social hour and refreshments following the program.

April 12
Sunday

FIELD TRIP - Walk-through tour of new freeway tunnel.
2:00 P. M. - Meet at upper end of S. W. Mill Street (west of 18th Avenue). Guide will take group through exploratory tunnel to Canyon Road side of the hill.
Hard hats or some type of padded headgear are required for those making the tour. Also, bring Coleman lanterns, or flashlights.
For additional information, phone Mr. C. T. L. Murphy, Field Trips Chairman, at 282-2027.

April 21
Tuesday

LIBRARY NIGHT - Lewis and Clark College, S. W. Palatine Hill Road.
7:30 P. M. - Meet at Peeble's Hall (Biology Building) on the campus. Program details to be announced.
For information and directions, phone Mr. Murray Miller, Library Night Chairman, at 656-6724.

April 24
Friday

LECTURE - Public Library (room A), 801 S. W. 10th Avenue.
7:30 P. M. - Mr. Jim Anderson, Staff Naturalist with the Oregon Museum of Science and Industry, will present a program about Lon Hancock. O. M. S. I. has prepared a very appropriate program, combining a tape recording of Lon's voice with illustrative slides.
9:00 P. M. - Social hour and refreshments following the program.

April 26
Sunday

FIELD TRIP - Upper Lewis River, Washington via private car caravan.
8:45 A. M. - Assemble in front of the school at town of Amboy, Wash. on State Hwy 1S (about 20 mi. n. of Battleground). Amboy may be reached by several routes over good all-weather surfaced highways.
9:00 A. M. - Depart from Amboy to visit Yale Dam, up Lewis River to Cougar, Swift Creek Dam, lava caves and tree casts of upper Lewis River area. Latecomers may catch up with the caravan at Yale Dam, Cougar, or Swift Creek Dam. Field trip participants should be prepared with usual equipment (lunches, geology picks, cameras, raingear, hiking shoes, etc.) plus lanterns or flashlights for entering the caves.
For additional information or directions phone Mr. C. T. Murphy, Field Trips Chmn, 282-2027, or Mr. Al Kenney, Trip Leader, 775-5697.

NEWS OF MEMBERS

FRANKLIN L. DAVIS

Franklin L. Davis, longtime member of the Society, died on Sunday, March 15th, of a heart ailment. He is survived by his widow, Geraldine K., a daughter and two grandchildren in Portland, and a sister in North Carolina. He was a civil engineer retired from the Portland District of the Corps of Engineers, and former Assistant Oregon Public Utility Commissioner. He was a member of the Masonic Lodge, a member of the Mazamas, past president of the Oregon Technical Council and a former member of National Association of Railroad and Public Utility Commissioners.

MEMBERSHIP ROSTER

name	street address	city	state	telephone
NEW MEMBERS				
Ackerman, Mr. & Mrs. Arthur P.	2229 S. E. Market Street	Portland 14,	Oregon	235-5319
Awbrey, Mr. Curtis D.	1828 Berkeley Way	Berkeley 3,	Calif.	848-8406
Blakeslee, Mr. Ernest L.	4810 S. E. 35th Avenue	Portland 2,	Oregon	775-2163
Leach, Mr. & Mrs. John R.	6704 S. E. 122nd Avenue	Portland,	Oregon	771-2745
Mihelcic, Mr. & Mrs. John	13029 S. E. Ash Street	Portland,	Oregon	252-7572
Miller, Mrs. Emma A.	1638 S. E. 12th Avenue	Portland 14,	Oregon	236-1964
Morrison, Mr. & Mrs. W. W.	13102 N. E. Morris Court	Portland 30,	Oregon	255-4175
Talbott, Mr. & Mrs. John J.	4833 East Burnside	Portland 15,	Oregon	236-2732
Walker, Mr. & Mrs. Lisle	2241 N. E. 162nd Avenue	Portland 30,	Oregon	252-4482
Walters, Mr. & Mrs. George W.	1345 N. E. 59th Avenue	Portland,	Oregon	282-4272

ADDRESS CHANGE

Miller, Mr. & Mrs. Fred E.	3122 S. E. 73rd Avenue	Portland 6,	Oregon	771-6154
Schull, Mr. & Mrs. Bert R.	6209 East Hawthorne	Tucson,	Arizona	

NEWSLETTER SUBSCRIBER

Library, U. S. Geol. Survey	Federal Center, Bldg. 25	Denver 25,	Colorado	
-----------------------------	--------------------------	------------	----------	--

THE TWENTY-NINTH ANNUAL BANQUET

By William M. Freer

The atmosphere in the ballroom of the Portland State College Center changed slowly from static boredom to mild curiosity as the banquet tables were set up and set, and to increasingly greater interest as more and more people began to arrive to do more and more things, such as decorating the tables in an enchanting way that made them look like Spring on the rocks; placing the microphones just so; and putting interesting-looking properties on the stage, including a banner with a strange device rarely seen before. In the curtained-off area still other people arrived bearing burdens of geological specimens and fossils that they arranged with affectionate care in effective displays on the tables provided for the purpose.

Through this ever increasing activity, controlling it, directing it, there circulated a platinum blonde accompanied by a gentleman who, though he might once have been blonde, would not now be so considered. It was interesting to watch their mobile faces reflecting the emotions of the moment; anxiety, relief, satisfaction, dissatisfaction, annoyance, amusement. It was refreshing to watch them quietly communicate, often without words, with a querying look, a quizzical glance, an arched eyebrow. Under their sure touch a pattern began to evolve, a plan began to shape.

By 6.30 P. M., although it was Friday, the 13th, the atmosphere of the ballroom was fraught with the feeling of impending excitement, and it was buzzing like a beehive over the murmur of old friends greeting each other or chatting with new acquaintances and guests. In the display section Chairman Dennis Carmody had generally tried to carry out the Society's theme for the year -- The Physiographic Provinces of Oregon -- and all but two of the provinces were represented. Here, the State Department's collection of geological maps of the Oregon Coast was admired, as was Leo Simon's glass case of polished agates and fossil ferns, Henry Jaenke's Indian artifacts, Hilda Freed's zeolites and volcanic bombs, Bob Hart's exhibit of fine fossils from the Clarno, Bob Wilbur's wonderful leaf molds and fossil fish, Dr. Howell's pictures of previous fieldtrips, Dr. Jones' marine fossils, Truman Murphy's olivine from the Klamath Mountains, and the fine displays of Bruce Schminky, Marjorie Fessenden, Ray Golden, Bob Waiste, and others. While the display was not so extensive as last year, its quality was undiminished. Even so, we were called to dinner before we had finished our inspection.

Shown to our places by pretty girl hostesses, we found the attractive program -- here included -- had again featured the year's recurring theme -- selected photographs from the geophysical provinces. Its cover, drawn by Margaret Howell from a photo of Rowena Hoven's, showed the banner on the stage, our now official flag made last summer by Laurette Kenney and used for the first time on President's Campout in September. The tables were decorated with driftwood on pebbles garnished with the freshness of spring ivy and camellias -- the art of Gwen Helm -- and at every place was a miniature of Laurette's flag on a standard in a gumdrop. While we were still admiring this delightful handiwork, the Society's twenty-ninth annual banquet, the biggest ever with 184 members and their guests, was called to order and greeted by Al Kenney, our retiring President, and we were under way. For a cocktail Dr. Arthur Jones, with Mrs. Hancock at the piano, led us in singing "The Caravans Go Rolling Along." The caravans rolled right into our Swiss steak and tossed salad, or halibut, if you preferred, and soon thereafter Truman Murphy, our loquacious toastmaster, introduced the head table and the distinguished guests. Our own Reynolds Ohmart was there with a contingent from Salem; Mr. and Mrs. Dick Fagan from the Oregon Journal, and happily for us, Mr. and Mrs. Phil Brogan from Bend. Phil was our celebrity this time, and we made the most of him. A wave of sadness swept us when we were told that Mrs. Louis Oberson could not be with us because she had broken her hip only two days previously.

By this time Truman had got the banquet off the ground, and he kept it there by giving it constant injections of zesty humor and vitality that gave it a champagne sparkle for the rest of the evening. The new officers were duly installed, in which time-honored ceremony our new President, Irv Ewen, was given custody of the heirloom copy of "The Two

Twenty-Ninth Annual Banquet - cont'd.

Islands," written by Dr. Thomas Condon, the patron saint of the Society. In this volume are inscribed the names of all the past presidents of the Society. Al Kenney then reviewed the year that was, and what a year it turned out to have been! Irv Ewen made the forecast for the coming year, the theme of which is to be "Man and His Minerals," meaning the application of minerals to the use of man, and it sounds like an excellent one with unlimited possibilities. Giving this inaugural talk must have created a trying situation for Irv, who resolutely faces a path fraught with danger, for he is a bachelor who assumed all these new responsibilities on Friday the 13th, in a leap year. Whatever his sentiments were, we admired his savoir-faire. Al Kenney then made all the proper acknowledgments for his highly successful year, and he in turn was awarded his engraved GSOC pick, the symbol of past presidents of the Society. After which Truman gave us an intermission to view the display and visit.

After the intermission came the address of the evening, "The Necessity of Minerals," given by Hollis M. Dole, State Geologist, director of the State Department of Geology and Mineral Industries, and of our membership. Mr. Dole gave us some background of the use of minerals by man in the past, told us of the rapid rate of attrition of our mineral deposits in the present, and gave us a dismal picture of the available supply for the future. Documented with interesting comparable statistics, he clearly and concisely gave us a quick look at the situation as it now is. Then he cheered us by brightening the dismal picture by telling us of the possibilities of mining the sea, with its inexhaustible mineral resources, the development of which is now in progress.

After another intermission to stretch our legs, we sang De Re Geologica and The Hills of Oregon, Lon Hancock's old favorite, with the help of Dr. Jones and Berrie, of course, and then came entertainment in the form of Jim Anderson, who is the Staff Naturalist at CMSI. Jim, who is as articulate as Truman Murphy -- and as hilarious -- regaled us for twenty minutes with some of his favorite pets he'd brought along; an owl, a bull snake, and Mrs. Anderson. His very young son was also present, but after brief display took no further part in the program. We enjoyed getting acquainted with the Andersons, and are looking forward to seeing them again.

The next number on the program, arranged by Laurette Kenney, was the unique and interesting presentation by Iris Kadderly of a young chimpanzee named Penny who is being brought up as a child in the Kadderly household. Penny, appropriately dressed as a GSOCer on a field trip, enthusiastically bashed thunder eggs with her pick, but she ate her specimens, which, of course, we never do. Mrs. Kadderly was assisted by her two sons, and afterward Penny came down from the stage and mingled with the crowd.

The strains of "Goodbye, Rock Hunters, Goodbye," concluded the highly successful twenty-ninth annual banquet that, in its intricacies, many people had worked long and hard and harmoniously to produce, and on the way out, as they passed Phil Brogan autographing copies of "East of the Cascades," it must have been very pleasant to Mr. and Mrs. Paul Dunn, the banquet co-chairmen, to be able to relax in the satisfying knowledge of a difficult task well done. For it will be hard to top the twenty-ninth annual banquet.

BANQUET CO-CHAIRMEN'S THANK-YOU

Now that the 29th Annual Banquet of the Geological Society of the Oregon Country is an event of the past, we, as the co-chairmen, can relax knowing that we will not be talking on the telephone for hours or taking part in a committee meeting. However, we do take time to reflect on the endeavor which was necessary to bring an affair of this kind to fruition.

We wish to express publicly our gratitude to all the committee heads who were listed in the program for a great job well done. Their diligence was demonstrated time after time throughout months of preparation. Even on the day of the banquet, most of them were in the ballroom from 3:30 p. m. decorating the tables and stage, or setting up displays. They were responsible, creative, and most important, cooperative. Mr. W. Freer is given program recognition for the beautifully lettered name cards, but we thank him also for handling publicity.



Mr. C. T. L. Murphy, Toastmaster, gets the festivities under way.



Incoming Pres. Ewen gets gavel and book from retiring Pres. Al Kenney.



Author Phil Brogar meets Jim Anderson and feathered friend.

TWENTY NINTH ANNUAL BANQUET

Geological Society
of the
Oregon Country

photography by
Delano Photographics



Past Presidents of the Society pose for portrait.



Dr. Jones directs singing familiar tunes.



Brian Kadderly and Mrs. Kadderly watch "Penny" breaking bombs.

Banquet Co-Chairmen's Thank-You

In addition to thanking these committee heads who took the responsibility, we wish to acknowledge Hugh Owen, Bob Wilbur, Joanne Poppe, Paulette Howell, Celia Howell, Alice Schminky, Gregg Hanson, Kippie Redwine and Bob Hart who so ably assisted our hospitality chairman, and willingly helped all of us with many last minute details. They were really indispensable, as were Mrs. Ruth Prentiss, Mrs. Simon and ? who brought our capable decorations chairman camellias and flowering shrubs.

We remember two particular gatherings where the committee heads were assisted on detailed work on the decorations, etc. by Bob Wilbur, Henry Jaenke, Rowena Hoven, Elizabeth Gilliam, and our own Truman Murphy who later put the champagne sparkle into our program as Master of Ceremonies. Many hands did make the work lighter.

It is not for us to thank the outgoing President for providing an excellent speaker, a personable and capable Master of Ceremonies, an interesting theme for the printed program, and a superb handling of his swan-song duties, but we can congratulate him; and we can thank his very helpful and efficient wife, Mrs. Albert Kenney, for the preparation of the program for the printers, and her help on table decorations, all in addition to her handling of the entertainment which has been proclaimed exciting and unique. Who said women couldn't keep a secret? We did.

Mr. and Mrs. James Anderson introduced their infant son to the group. Then Mr. Anderson, Staff Naturalist with the Oregon Museum of Science and Industry, entertained us with humorous and informative comments as he presented a snake and a tame young owl. The wise bird perched quietly in one place; but the snake, obviously an extrovert, made friends with the few who were interested in a handling acquaintance. Our thanks, Mr. Anderson.

Our appreciation goes to Mrs. Kadderly who, with her two sons, presented "Penny" a three-year-old chimpanzee which is being trained as a child in the Kadderly home. Penny was dressed for an outing with the GSOCers and wielded a mean pick. She is very lovable, and photogenic, too.

Thank you, Murray Miller, for being responsible for the public address system, and for making a standard for our own GSOC flag which was created by outgoing President "Al" Kenney. A thank-you to all who supported our enthusiastic displays chairman in his effort to have the President's general theme of Geophysical Provinces of Oregon "spelled" out in specimens and photographs. A thank-you to Leonard Delano for sharing his photographic skill with us at the banquet and for newspaper and newsletter publicity purposes. And what would we have done without Gregg Hanson and his camera? Thank you, Gregg, and also Mrs. Kenney who was seen "clicking shutters" at all the past presidents.

A Telephone Committee, appointed by us, called all members who had not bought tickets as of March 5. And some of them attended because of this kindly reminder. Our appreciation is extended to Mrs. Rudolph Erickson, Mrs. Francis Gilchrist, Miss Ada Henley, Mrs. Ruth Prentiss, Mrs. Leo F. Simon, and Miss Mella White.

We cannot stress too much that the success of this banquet was in direct ratio to the friendly, cooperative manner in which all concerned attacked problems and came to congenial resolutions. These harmonious associations have cemented friendships within the Society.

Friday, the 13th, and a bachelor president taking office in Leap Year! Maybe this is an omen of unusual things to follow.

If we have inadvertently omitted a thank-you, please forgive us.

We thank the Society for the opportunity and pleasure of chairmanning the 29th Banquet.

Paul and May Dunn
Co-chairmen, 29th Banquet

M E N U

BRUNEAU JASPER IN MUD or MARBLE SLABS

ORBICULAR VARISCITE

SERICITE GOUGE

TOSSED EMERALD AND JADE CHIPS

GARNETS IN MATRIX

or

WULFENITE OR OPALITE

PETROLEUM TOPAZ WHITE CALCITE

Swiss Steak or Halibut

Buttered Peas

Whipped Potatoes

Tossed Green Salad

Deep Dish Cherry Pie

or

Sherbert or Ice Cream

Coffee - Tea - Milk

VIEWING DISPLAYS

PROGRAM

Greetings Mr. Albert R. Kenney, Sr.
President 1963

Singing: "The Caravans Go Rolling Along"
Directed by Dr. Arthur C. Jones
Pianist Mrs. A. W. Hancock

Introductions by Toastmaster Mr. C. T. L. Murphy

DINNER

INSTALLATION OF OFFICERS

Review of 1963 Mr. Albert R. Kenney, Sr.

Forecasts for the Future Mr. Irving G. Ewen

Honors and Awards Mr. Albert R. Kenney, Sr.

INTERMISSION

VIEWING DISPLAYS

Address: "THE NECESSITY OF MINERALS"
Hollis M. Dole, State Geologist
Department of Geology and Mineral Industries

INTERMISSION

Singing:
"DE RE GEOLOGICA"
"THE HILLS OF OREGON"

Entertainment:

ANIMAL ODDITIES Mr. Jim Anderson, Staff Naturalist
Oregon Museum of Science and Industry

Singing: "GSOCers ARE WE"

"POLISHING PENNY" Mrs. Iris Kadderly and
Master Brian Kadderly

"GOODBYE, ROCK HUNTERS, GOODBYE"

PROGRAM PERSONNEL

BANQUET CHAIRMEN.....Mr. and Mrs. Paul E. Dunn
 TOASTMASTER.....Mr. C. T. L. Murphy
 COVER ILLUSTRATION.....Mrs. Paul W. Howell
 (Adapted from photograph by Rowena Hoven)
 PHOTOGRAPHS.....Mr. Leonard H. Delano
 TICKETS AND RESERVATIONS...Mr. Leo F. Simon
 DECORATIONS.....Mrs. Gwen Helm and
 Mr. Jack Pollard
 PLACE CARDS.....Mr. William M. Freer
 HOSPITALITY.....Mrs. Leonard H. Delano
 MUSIC.....Dr. Arthur C. Jones and
 Mrs. A. W. Hancock
 DISPLAYS.....Mr. Dennis M. Carmody
 ENTERTAINMENT.....Mrs. Albert R. Kenney
 PRINTERS.....Mr. and Mrs. C. L. Rosenberry
 CATERERS.....Portland State College
 Catering Service
 LOCATION.....Portland State College Ballroom

Our thanks to the many members and friends who
 have given generously of time and talent.

Twenty-ninth Annual Banquet
 GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

OFFICERS

<u>1963</u>	<u>1964</u>
President	
Mr. Albert R. Kenney, Sr.	Mr. Irving G. Ewen
Vice-President	
Mr. Emory Strong	Mr. Fred E. Miller
Secretary	
Miss Shirley O'Dell	Miss Shirley O'Dell
Treasurer	
Miss Marjorie A. Fessenden	Mrs. Albert R. Kenney, Sr.
Directors	
Mr. J. R. Rentsch	Mr. J. R. Rentsch
Dr. John H. Hammond	Dr. John H. Hammond
Mr. Leo Simon	Position to be filled
Mr. Fred E. Miller	Mr. Leonard H. Delano
Mr. Leonard H. Delano	Mr. Albert R. Kenney, Sr.



KLAMATH MOUNTAIN PROVINCE
Rogue River



CONTINENTAL SHELF PROVINCE
Sea Stacks at Brookings



LOW CASCADES SUB PROVINCE
Stone Wall Ridge



DESCHUTES UMATILLA PLATEAU PROVINCE
"The Island"



HIGH LAVA PLAINS PROVINCE
Hole in the Ground



COAST RANGE PROVINCE
Heceta Head



WALLOWA PROVINCE
Wallowas



WILLAMETTE VALLEY PROVINCE
East from Albany

Theme of the Year
GEOPHYSICAL PROVINCES
OF OREGON

HIGH CASCADES SUB PROVINCE
Three Sisters



BLUE MOUNTAINS PROVINCE
La Grande

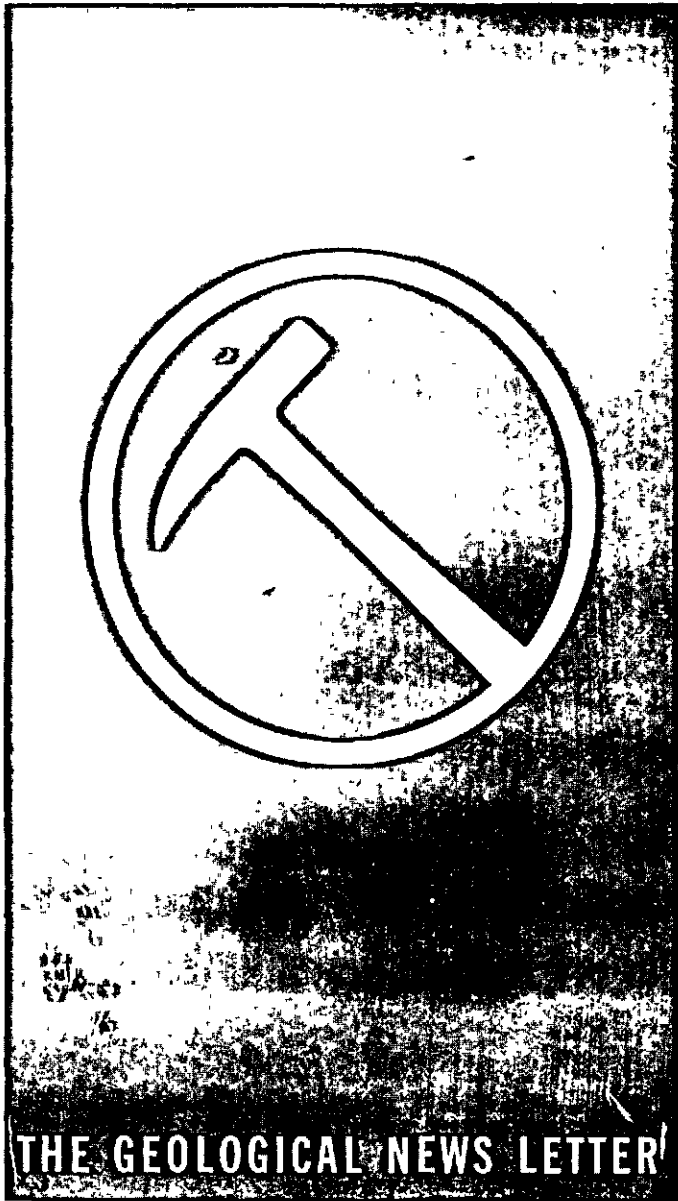


BASIN AND RANGE PROVINCE
Steens Mountain Scarp
Alvord Ranch

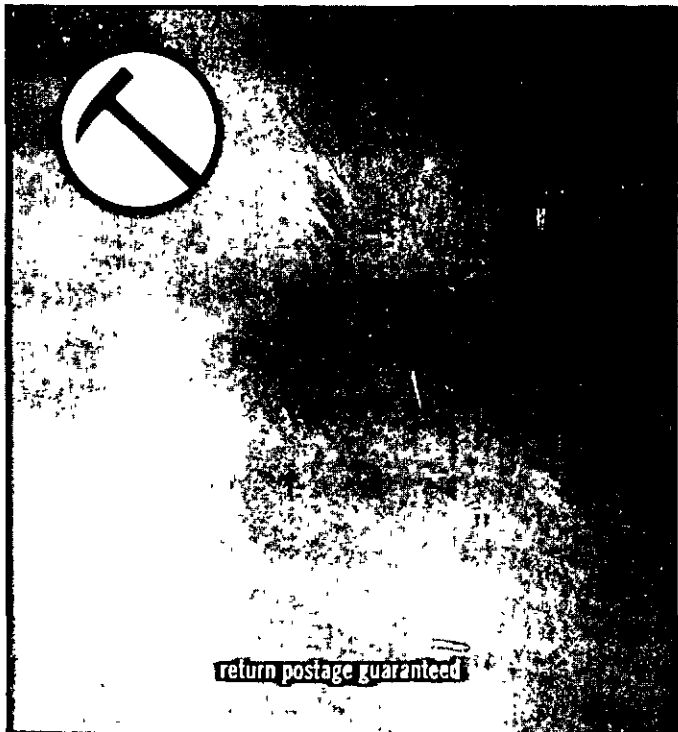


29TH
ANNUAL BANQUET
GEOLOGICAL SOCIETY
OF THE OREGON COUNTRY
MARCH 13, 1964

margaret howell



2020 S. E. SALMON STREET, PORTLAND, OREGON 97214



Official Publication of the Geological Society of the Oregon Country

May 1964

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999

State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

CALENDAR FOR MAY 1964

All scheduled activities of the Geological Society will meet on Pacific Day-light Saving Time.

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Ave. (use Taylor Street entrance).

12:00 Noon - Select and purchase desired food items in the Main Cafeteria (total price will vary as all food items are individually priced). Take lunch to the "Mountain Room" (past the "Foothills Room" adjacent to the Main Cafeteria). Luncheon gatherings provide an opportunity to examine and discuss publications and specimens and hear occasional "five-minute" talks on geology and related subjects.

For more information phone Mr. Leo Simon, Luncheons Chairman, at 236-0549 (home) or 223-0300 (office).

May 8
Friday

LECTURE - Public Library (room A), 801 S.W. 10th Avenue

7:30 P.M. - Mr. Laurence Sandstrom will present a movie program showing experiments with Silicon and Carborundum under very high heat with resultant production of crystals. Mr. George Dahlin, a member of the Society, has made the arrangements for the showing of this fine film by the Carborundum Corporation of Vancouver, Washington.

9:00 P.M. - Social Hour following the evening program.

May 16 & 17
Friday &
Saturday

FIELD TRIP - Overnight camping trip to Cape Arago (Coos Bay area).

Saturday Afternoon - Meet at Sunset Bay State Park, west of Coos Bay, Oregon. Arrival time is optional since the group will be camping overnight at the park. It is possible that the group will spend the night at the University of Oregon facilities at Charleston if available. For those not wishing to camp there are ample Motel accommodations available in the general area.

Field Trip Leader, Al Kenney, has selected these dates to take advantage of the minus tides. Come prepared (with the usual gear and camping equipment) and plan to spend an interesting weekend in this unusual and scenic area.

For more information see "Information for May Field Trip", page 3 of the May issue of the Geological News Letter or call Mr. Albert R. Kenney, Field Trip Leader, at 775-5697.

May 19
Tuesday

LIBRARY NIGHT - Lewis and Clark College, S. W. Palatine Hill Road.

6:00 P.M. - Annual Spring Library Night Picnic. Weather permitting, this annual event will be held as usual beside the swimming pool. In the event of inclement weather, the festivities will be moved indoors. Beverages will be furnished, but bring your own picnic supper and utensils.

For more information call Mr. Murray R. Miller, Library Night Chairman, at 656-6724.

May 22
Friday

LECTURE - Public Library (room A), 801 S.W. 10th Avenue.

7:30 P.M. - (tentative) Mr. Leverett Richards, Aviation Editor, The Oregonian will present some impressions of the Good Friday earthquake in Alaska. Mr. Richard's timely talk will be illustrated with slides taken during his recent trip to the stricken areas.

9:00 P.M. - Social Hour and refreshments following the program.

LUNCHEON NOTES

By Elizabeth Gilliam -

During March, a luncheon was attended by HOLLIS DOLE, State Geologist, who brought with him JOHN ROBINSON of Robinson & Roberts, Tacoma, Washington, ground water geologists; these consultants travel when requested to different countries. Robinson recently spent considerable time in Jamaica on a job. He reported to us that the island was two-thirds tertiary limestone and one-third cretaceous. Also mentioned that it is the world's largest shipper of bauxite. A relaxing place to visit and while traveling in suburbs never saw any white people. Robinson had attended our luncheons several years ago and was glad to learn they are continuing.

JESS RENTSCH brought a lead disc with him, asking that everyone guess the weight. My recollection is that but one guessed correctly--it was 1 lb. Most were 2-3 lbs. Next week LEO SIMON brought a small bottle of mercury - also a piece of cinnabar; we were again asked what we thought the weights of these articles to be. The group was more accurate this time (experience teaches). No prizes. The question was asked when were they going to start guessing the weights of women--whereupon LEO stated that this couldn't happen because the truth would not be told. RENTSCH gave us a report on starlings, - they first showed up on the Atlantic Coast in 1890 and that he first saw them while living on Long Island many years ago. In the middle West they were able to kill them by the thousands by putting poison in their food but out here cannot do so because the food will also be eaten by the larks. Therefore, we can tell all hunters that they may use the starlings for targets before they overwhelm us.

DR. ARTHUR JONES brought three pieces of obsidian-like specimens, given him by his little (6'3-1/2") brother, DR. FRANCIS JONES, chemist from Berkeley, California. One was a tektite from Indochina (about 1" in dia.). The latest studies indicate and guarantee that these, though similar to meteorites, are actually fused or vitrious material entering our atmosphere after being thrown from the moon after a meteorite or comet collided with that body. Tektites are numerous in Australia (called there australites); found in lands adjacent to the South China Sea, Africa, Colombia, Bohemia and in Georgia and Texas. The two smaller pieces are silicious material, one a piece of rust flake from the Arizona Meteor Crater. The other a little triangular piece of Josephinite from Josephine County, Oregon. They used to pan it out with gold and it was thrown away.

* * * * *

MEMBERSHIP ROSTER

name	street address	city	state	telephone
NEW MEMBERS				
Becker, Mr. & Mrs. Ralph	1306 - 42nd Street	Milwaukie	Oregon	654-6439
Kastner, Mr. & Mrs. Albert D.	1811 - 9th Street	Oregon City,	Oregon	228-3726
Palmer, Miss Cydni*	12505 SW Lesser Road	Portland	Oregon	
Roberts, Mr. & Mrs. Walter E.	1055-16th Street, N. E.	Salem,	Oregon	

ADDRESS CHANGE

Crowe, Mrs. Ava B.	Post Office Box 513	Lake Oswego,	Oregon
Paige, Mr. & Mrs. Russell A.	1400 North "M" Street	Oxnard,	California

RESIGNATIONS

Barr, Mrs. Amza (Elizabeth)

* Junior Member

THE HIGH CASCADES
By Leonard H. Delano*

November 8 the writer had the pleasure of presenting an illustrated talk on the physiographic province of the High Cascades. In more than 17 years of active aerial photography in the Pacific Northwest, seeing the peaks of the Cascades in their various moods close at hand and from an elevated platform has been an exhilarating experience. A review of the High Cascades province is thus made of a familiar subject visually.

A special aerial trip in our aircraft October 19 provided some additional revealing photos before storms began to roll in with their white winter slip covers last winter.

Time during the talk was limited and we only attempt now to touch on a few principle features.

The series of peaks and numerous lava flows upon the plateau which crowns the Cascade Range in Oregon is called the High Cascades. Its scenic eminence as well as its youthfulness make it one of the most dramatically interesting physiographic provinces in Oregon.

Characteristic of the High Cascades province is its primarily constructional features, as contrasted with the Western Cascades erosional characteristics which Dr. Howell has pointed out to you in his talk on the Western Cascades. Born in the Pliocene and Pleistocene and even Recent times, some of its lavas seemed to have cooled only a few years ago, so fresh do they seem.

A number of valuable contributions to knowledge of this area have been made. Howell Williams work is well known. Our own Dr. Hodge gave the Cascade Formation its abbreviated name, the Cascan Formation, which refers to the lavas of the High Cascades. But for such a prominent feature of our state which is the "backbone" of our geography, so to speak, there has been surprisingly little done. Obviously the lack of commercial inducement in volcanics is the biggest factor. But there is much that should be done in geological research in this area that is important, and some of it should be done by Oregonians. To rely on fellowships from California or elsewhere is not too flattering. Erosion features, soil studies, snow pack, forestry potential are by-products of geological research.

In the area during Pliocene times a series of low, broad shield volcanoes grew up by quiet outpourings of gray olivine-basalt and olivine-bearing basaltic andesite. Later, these volcanoes became alive with eruptions and built up their steep slopes with fragments and magma in a series of discharges. Still later, during the Pleistocene, these same volcanoes were reduced by glaciation. Other eruptions occurred and younger peaks and cones were born.

Speculation has grown among geologists studying the area that a giant graben or ditch existed where now exists the High Cascades. The northward bend in the McKenzie river is believed to mark the western fault line of this ancient graben, with Walker Rim the eastern fault line. John Allen mentioned this in a talk to us. Since a fault line is a line of weakness, it was natural that lava flows would occur along this graben edge. Howell Williams points to indications that the western edge has first flows, which began to fill the depression. Later, the outpourings began on the east side.

The High Cascades physiographic group extends beyond Oregon, and for our limited time we will begin at Mt. Lassen, its southern terminus in California to show similarity in some phases of vulcanism. We know the story of Oregon's Mt. Mazama, but how many realize the similarity of the story of Mt. Brokeoff from whose vast and empty cadaver rises the peak we know as Lassen? And if the writer's suspicions are correct, the story is yet to be told on several other volcanoes of the same chain whose existence in Oregon was later ended by explosion, glaciation and erosion.

The writer had occasion to again examine Mts. Lassen and Shasta and vicinities on an aerial survey trip February 1964. Mt. Lassen, 10,453' had eruptions in 1914-1917, later than any other Cascade peak. In it was the rebirth of volcanic activity in the skeleton of an older and much larger one called Mt. Brokeoff. Mt. Brokeoff was believed to have reached a height of about 11,000 AMSL. Four shield volcanoes of Hawaiian type were raised in each corner of what is now Lassen Park in the latter part of Mt. Brokeoff's growth. It

* Past President of G. S. O. C.

The High Cascades - cont'd.

later collapsed along faults, hence its name. An irregular body of rhyolite later fed a flow which filled to a thickness of as much as 1500' around present base of Mt. Lassen. Lassen peak was built in the Caldera of the old Brokeoff when a vent, Crescent Crater opened.

Later, about 200 years ago, a line of cones developed at the NW base of Lassen throwing out clouds of tuff and pumice. Chaos Crags and Chaos jumbles were built by a highly viscous lava flow. Steam rose from this spot as late as 1857. Lassen peak erupted in 1915 and subsided before end of War I. But its revival surprised everyone, especially during the devastating mud flows and horizontal blasts.

Mt. Shasta, 14,161' AMSL; 10,000' above base is imposing and beautiful, but in many ways would be commonplace without the large-sized secondary peak thrust up on its north-west flank. Shasta is a much younger cone. Indications show first eruptions of main peak near end of Pliocene. Latest lavas are no more than several hundred years old. It is claimed Shasta is largest of remaining Cascade volcanoes in bulk and height because its closest existing competitor, Rainier, rises from a platform of 8000' AMSL.

As we travel northward, we pass Mt. McLoughlin with remnants of ancient vulcanism to its east and old sea beds beyond.

Mt. Mazama, whose explosion and ensuing collapse approximately 7600 years ago left us with the Caldera called Crater Lake, would have been a national park anyway if it hadn't blown up. Atwood and others estimate its height to have been about 14000 feet. Again, we are reminded of Mt. Brokeoff which also blew its top, only in not so hasty a fashion.

Mt. Scott, the secondary cone, reminds us of Shastina.

Glacier-decimated Mt. Thielsen, Timber Crater, Mt. Bailey and other volcanic remnants lie north of what was Mt. Mazama. Between Thielsen and Bailey is Diamond Lake with its glacier-built dam. Mt. Howlock and Cowhorn Peak to the north of Thielsen are close to becoming completely erased from this line of volcanoes.

Most of the High Cascades cones, Howell Williams points out, erupted from flattish shield volcanoes in the late Pliocene and in the Pleistocene. But some composite cones were built in the Pleistocene and the South Sister is an example of three parts. Lower section is an eroded basaltic shield volcano, mid section is andesitic and dacitic lavas, with top section capping of two Recent cones of olivine basalt.

Aerial photos show the glaciation-affected North and Middle Sisters with their sharper peaks, contrasted with the cone of the South Sister. Reddish color from hydrogenation during eruption is, of course, evident on the South Sister.

The North Sister was once thought to be a huge mountain (Mt. Multnomah) and this theory proposed by Hodge, denied by Williams, has recently been brought up again.

Future correlation of vulcanism, glaciation, erosion and possible explosion as to age and related factors may explain further the decimation of mountains from different sides and possibly the mysteries of the Mt. Jefferson area. The latter has to its south a feature called Table Rock, which has long intrigued this writer. It appears to be the stump of an ancient cone. Other remnants lie to the south of it. To the east of Jefferson curve the Cabot and Jefferson creek valleys with Recent lava flows remaining in them since they held glaciers. But are they also part of a subsidence area similar to that surrounding Mt. Hood?

The continuous line of High Cascade peaks which reach to Mt. Hood and continue across under varying conditions to the southern Washington Cascades mark a line of volcanic activity. This has paralleling areas of lesser activity and in Recent years scattering activity in small cones. Notable among the parallel area is that of Sand Mtn. between Three Fingered Jack and Mt. Washington.

Recession of glaciers now going on in the Cascades has as its speediest example Collier glacier on the North Sister's northwest side. Adjoining it to the northwest is the recent flow of volcanic "syrup" which looks as if it happened in the last few hundred years.

A fissure system 14 miles long extending south from Bachelor Mtn. through Sheridan Mtn. to Lookout Mtn. had some of the most voluminous Recent lavas in the Cascades, according to Williams.

As we look up from the Belknap Cone across glaciated Mts. Washington and Three Fingered Jack to the East we see what is believed to be the eastern edge of the ancient giant graben as Green Ridge stands out on the horizon.

The High Cascades - cont'd.

Our more familiar Mt. Hood looks different from 23,000 feet and even from 10,000 feet we see the concavity of the so called subsidence area around its base. A joint research effort by two geologists on the Mt. Hood area is now being written up in a paper soon to be released. Perhaps there may be other work on the Mt. Jefferson area and other Oregon High Cascades areas soon. They are needed.

MAN AND HIS MINERALS

The March 27th Friday evening Library talk was given by Ralph Mason, mining engineer with the State Department of Geology and Mineral Industries, and of our membership. He spoke in the well-known Masonic tradition on "Man and His Minerals," which is the theme of the Society's activities for the coming year. After giving us a tentative outline of the new series, he developed the primitive use of minerals by early man down to their presently more sophisticated use by modern man in the exotic metals age. Among the many facets of this interesting talk was liquid metal mining, in which thermal power might be an attractive by-product; the threat of wilderness areas as they are now set up to the mining of essential minerals, for which he advocated the concept of multiple use, and the bright prospect of ocean mining, the means for which are now being developed. Attendance at this popular lecture was well over a hundred.

- - W. M. Freer

GHOST TOWNS

Stark, forlorn upon the desert
Weathered, broken, glory gone
Stand the ghost towns, mute reminders
Of the West's great golden dawn.

House empty, shutters flapping,
Windows shattered, doors flung wide
Welcoming the small wild creatures
That have staked out claims inside.

Gone the dance hall girls and miners;
Gone the brawling and the mirth;
Gone the gold and silver treasure
From the pockets of the earth.

by Verna Fuller Young, Elsinore, Calif.

- BOOKS EVERY MEMBER SHOULD HAVE -

Geology of Oregon - Ewart M. Baldwin, Professor of Geology,
University of Oregon \$2.00
Available at Coop Book Store, Portland State College

Geology of Portland, Oregon and Adjacent Areas,
Donald E. Trimble \$2.00
With large map insert. Geological Survey Bulletin 1119
Available at State Department of Geology and Mineral Industries
State Office Building, Portland.

MOLALLA RIVER FIELD TRIP

On Saturday, March 28th, at 8:45 a. m. , Dr. John Hammond emerged from his car in front of the Molalla High School, glanced with approval at the cloudless sky, shaded his eyes from the bright spring sun, and looked down the street. He was visibly shaken as he beheld 34 cars filled with over a hundred eager GSOCers and their families. Dr. Hammond rallied immediately and proceeded to lead a beautifully planned and well organized trip which culminated along the South Fork of the Molalla River.

The first stop was a short distance east of Molalla on the highway to Wilhoit at an Eocene basalt quarry, where attention was called to the red and green coloring in the rocks (for future reference).

From there we continued on to Wilhoit, past the former "spa" where the cottages and old pavilion still stand, and up the hill to the Madrones coal mine. Here we were told there is a 6-inch coal vein which runs back 2700 feet and is overlain by Oligocene marine beds. Mr. Madrones, the owner, was introduced and he explained he does not mine the coal but the layer just beneath it, from which he develops a product under the commercial label of M-21, and which is used for medical purposes. Mr. Madrones took us a short distance into the tunnel so that we might inspect the formations (and also have a quick shower from the dripping timbers). After collecting coal samples, we headed toward Scotts Mills.

The next stop was at the road cut just east of the Beaver Lake school house. Here we warmed up our G-picks in search of sycamore leaf fossils in the Molalla Formation.

Turning back toward Molalla, the next stop was scheduled at a plant where "kitty litter" is manufactured under the Hartz Mountain label. The foreman took over and explained the plant's operation, but unfortunately your narrator was in one of four cars at the end of the line which became separated from the caravan and were lost temporarily. Then in our rush to rejoin the group, one member was nearly lost forever when he leaped into an unidentified material having the consistency of quicksand. We reached the main group just in time to hear Dr. Hammond ask: "Are there any more questions?" It developed that the operation involves stripping off about a foot of the overburden (Molalla Formation) which contains a large amount of silica. This is deposited in kilns where the heat treatment expands the silica and makes it froth up. It is then very absorbent. However, in the process, 40% of the material is lost in dust. Another product which is packaged at the plant is Sani-Kleen for sweep. After filling our pockets with samples (the cat owners seemed to have larger pockets), we returned to Sawtelle Road.

We drove about 11 miles before making another road-cut stop to look for leaf fossils. The Molalla Formation here exhibited diversified layers of wood, leaves and one band of woody material which appeared to be just on the verge of coal. However, a wide soggy ditch along the road discouraged most of the pick wielders and we did not linger.

We followed the beautiful South Fork of the Molalla River, making a mental note of the likely fishing spots, and soon reached the gate of the Weyerhaeuser Company's Copper Creek Tree Farm, where Dr. Hammond had made arrangements previously for us to enter.

Six miles later, at the lunch stop, we saw the contact of Stayton Lavas with the base of the overlying Molalla Formation. While we were contemplating this, suddenly the three block-long caravan of cars was transformed into an enormous picnic table as the ravenous group "fell to" along the roadside.

After lunch we hit the road again, having been told to look for an area along the river banks where the columnar basalt is arranged in sunburst patterns. This is exposed for 5 miles along the South Fork and proved to be most spectacular. The shutter clickers were very busy. Approximately 7 miles from the picnic spot we noted the contact of basalt with a conglomerate mixture of rounded rocks and indurated sand. The brown altered layer was well defined.

Approximately 20 miles beyond the Weyerhaeuser gate we stopped at a lovely waterfall, and Dr. Hammond did not say a word until everyone had an opportunity to get a drink of the cold, clear water. Here we saw upper Eocene basalts and sediments of approximately the

Molalla River Field Trip - cont'd.

same age as those observed at the first quarry stop previously mentioned. This kind of rock is characteristic of the old western Cascades and continues down through Elkhorn into the mining areas (gold, silver, etc.), and on south to Eugene. It did not have the columnar characteristics but showed extensive erosion, faulting and folding. Once the gold and silver mines were mentioned it was impossible to hold back the group, although Dr. Hammond warned us we would not be able to reach the gold mine in this vicinity because of the snow.

The last stop was approximately 4 miles farther, just beyond the Weyerhaeuser camp and still following the South Fork. As we passed the deserted ranger station we admired the deer feeding in the meadow. With the promise of some rather well formed quartz crystals (upper Eocene basalt), we bounded from the cars, crossed the river, and attacked the cliffs. One of our newer members was rewarded by finding a geode containing beautiful crystals.

Here we said our farewells, particularly to the 30 members of the Salem Geological Society, and expressed our appreciation again to Dr. Hammond for a magnificent trip. On the return trip some of the cars stopped approximately 3-1/2 miles below the Weyerhaeuser gate to look for leaf fossils in another outcrop of the Molalla Formation. Nice elm specimens were found and a few ginkgo leaves. From here the caravan disbanded and we returned to our respective homes, where we emptied the kitty litter from our pockets and immediately took steps to combat the dust and any poison oak we might have contacted inadvertently at the last stop.

Many thanks to Dr. Hammond for a profitable and enjoyable trip, and to the weatherman for beautiful weather.

--Rowena Hoven

FIELD TRIP TO CAMP ARAGO - May 16-17

A week-end camp-out at Cape Arago on the Oregon coast just south of Coos Bay is scheduled for Saturday and Sunday, May 16-17. This region was visited by the society about five years ago. Leader Al Kenney has arranged this date to correspond with extremely low tides which will interest beachcombers.

Of special interest in this locality is the spectacular Coaledo formation here prominently exposed. The society has had several illustrated lectures about this geological phenomenon. Consult your Geology of Oregon by Ewart Baldwin, page 23, for description of the Coaledo and plates 8 and 9 for excellent views by Delano Studios. The sand dunes of the coast area will be visited and explored.

Trippers will meet Saturday afternoon May 16th at Sunset Bay (see plate 8) at the State Park where camp will be made unless the facilities of the Oceanographic Institute are made available to us. Numerous motels in the vicinity also offer their services.

Coos Bay is a six hour drive from Portland. Display your GSOC cards from the first; you will have friends along the road. Those not on a time schedule for a Monday morning job may elect to drive down on Friday and return leisurely.

Cameras, camp gear, rain gear, beach clothing, G-picks and lenses are suggested.

- C. T. L. M.

1961 GEOLOGICAL NEWS LETTER INDEX PREPARED

The annual subject-author index of the Geological News Letter for the year 1961 has been compiled by Miss Margaret L. Steere. The index, included with this issue, should be placed with Vol. 27.

We of the Society are appreciative of Miss Steere's efforts for this index and also for the other recently prepared indices for Volumes 28 (1962) and 29 (1963).

THE VOICE OF LON HANCOCK

For the April 24th Friday evening Library lecture, Jim Anderson, Staff Naturalist at OMSI, gave us a program of a unique and moving nature with deeply nostalgic undertones. It was a skilfully assembled montage of the Lon Hancock Story made with tapes of Lon's voice lecturing to the youngsters at Camp Hancock.

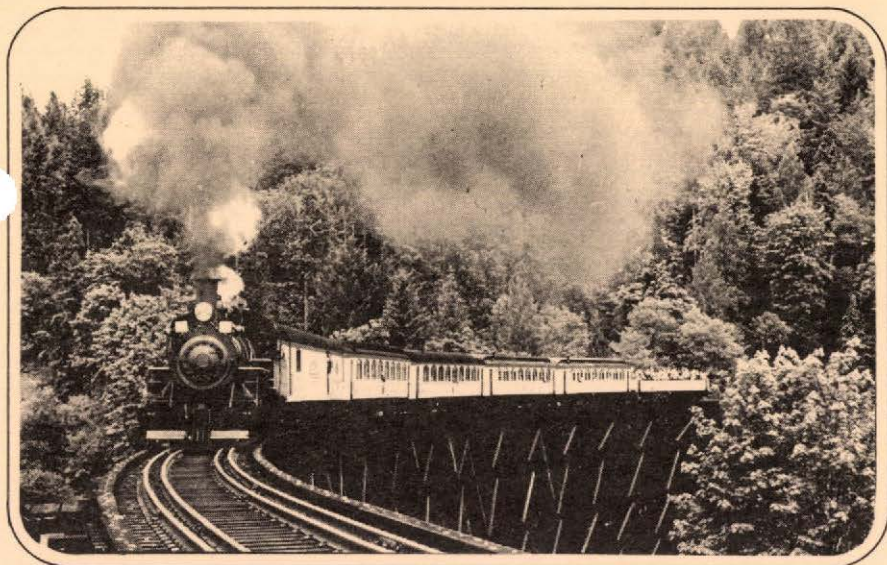
This commentary, which covers the geologic time chart from the beginning of the Paleozoic through the Mesozoic, is complimented with well selected colored slides of Lon and illustrations of his subject at hand. In a heart-warming breath from the past it was a great pleasure to hear again the well-remembered voice of Lon telling us about the three-toed horse and the mosquitoes with the three-foot wing spread.

We were happy to see this new memorial to Lon, our homespun postman, whose inspiration and industry made him nationally known, whose humbleness made him great, whose gentleness made him loved. And we congratulate and thank Jim Anderson, who, at the behest of OMSI, did such an excellent job in assembling and editing this memorial.

W. M. F.

GEOLOGICAL TRIP LOG

THROUGH THE EASTERN FOOTHILLS OF THE OREGON COAST RANGE
BETWEEN VERNONIA AND BANKS
ON THE



PRICE 25c

Prepared By

Ralph S. Mason, text; Irving G. Ewen, maps
Bob Anderson, art and typography
Fred E. Miller, photos

Under the auspices of the Geological Society of the Oregon Country



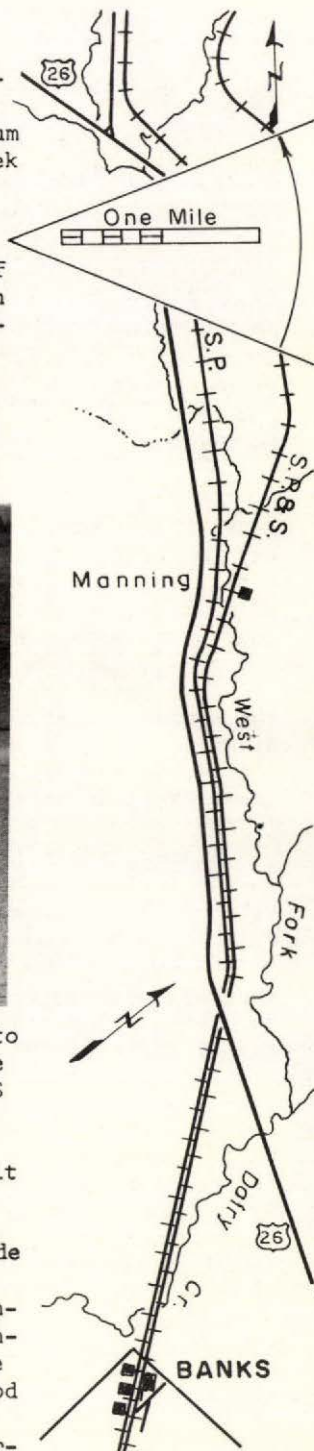
July 1964

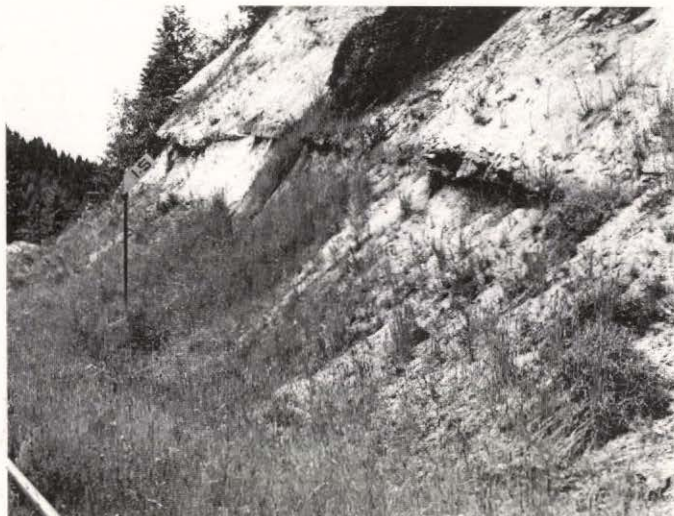
GEOLOGIC NOTES ALONG THE WAY

The Banks terminus of the Vernonia, South Park & Sunset Steam Railroad (Toot Toot!) is constructed on Recent alluvium which forms part of the extensive Tualatin Valley floor. The alluvium has been deposited by the West Fork of Dairy Creek and other streams in the area which have dropped their sediments, obtained from the Coast Range, when their gradients flattened perceptibly upon reaching the valley. Generally speaking, most of the Tualatin Valley floor lies below an elevation of 200 feet above sea level. This surface is indirectly controlled by the Oregon City Falls, which back up both the Willamette and Tualatin drainages for miles.



After backing out of the VSP&SSRR yards onto the SP&S tracks, the route parallels not only the SP line, but stretches of State Highway 47 and US Highway 26, and the West Fork of Dairy Creek as well. Just beyond the overpass with US Highway 26 note the red bluffs of weathered Miocene basalt to the left of the tracks. The tracks cross the West Fork at Manning, and a half mile farther on Whitcher Creek is bridged. From here on the grade leads ever more steeply upwards from the valley, passing the village of Buxton lying across Mendenhall Creek and then entering the steep-walled Mendenhall Canyon. Ten minutes out from Manning the tracks cross the canyon on a climbing, curved wood trestle, best viewed from the left side of the train. From Mendenhall Trestle on up to the over-



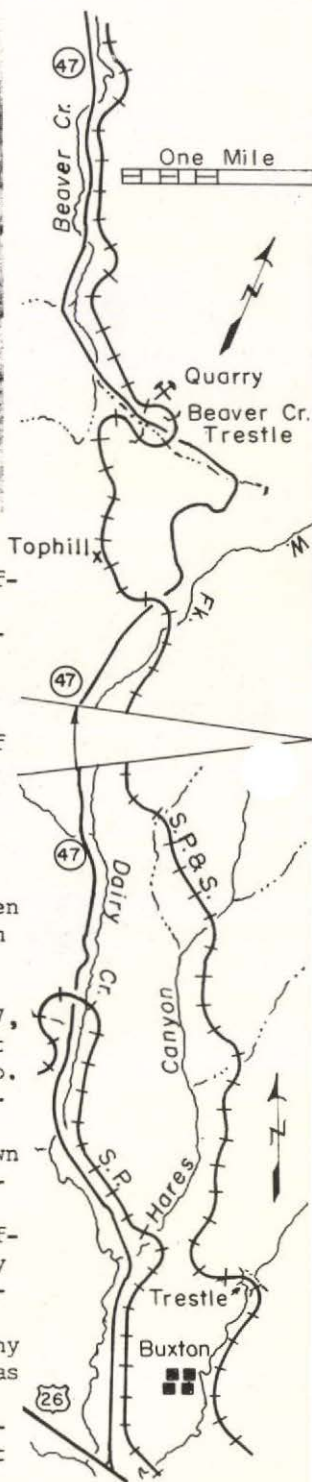


pass which crosses State Highway 47, the right-of-way is founded on exposures of Pittsburg Bluff Formation. The formation is considered to be middle Oligocene in age and is composed mainly of quartzose sandstone.

The Pittsburg Bluff Formation lies on top of the Keasey Formation and is in turn overlain by Blakeley beds of Upper Oligocene age. Blakeley rocks crop out within sight of the tracks for a short distance north of Manning.

Several abandoned wooden trestles can be seen on the left as the train climbs along the eastern wall of Hares Canyon.

Shortly after bridging over State Highway 47, the tracks reach Tophill at an elevation of about 960 feet -- the highest point reached on the trip. Keasey shale is seen continuously for several miles along the right-of-way in this section. Keasey shale is a marine deposit which was laid down when the northwestern part of the State was inundated about 40 million years ago. The shale is composed largely of tuff. The Keasey is fossiliferous, and good specimens may be obtained at many points in fresh roadcuts. The economic importance of the shale is discussed below. From an engineering standpoint, Keasey shale has caused many problems along the SP&S right-of-way, since it has the disconcerting habit of weathering into a plastic clay shortly after being exposed to the elements. Originally some of the right-of-way went through a tunnel near the summit. Unfortunately the tunnel was driven in the shale, and eventually



the entire section had to be "daylighted" as the tunnel collapsed. Several track-side cuts in the Keasey show gently inclined ribs or ledges (see photo opposite) a few inches thick. These are harder portions of the formation which have been better cemented than the surrounding material. Lime is a common cementing agent and very likely accounts for the ribs in this case. Formations containing much lime are said to be calcareous.



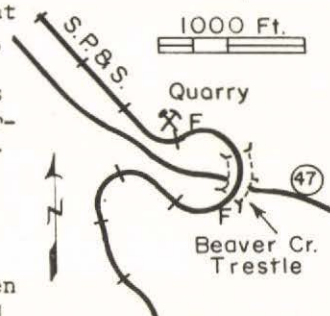
At the extreme summit note the abrupt change in the slope of the tracks as the right-of-way begins the long drop to Beaver Creek. The sharp bending of the track sometimes causes the cars to uncouple.

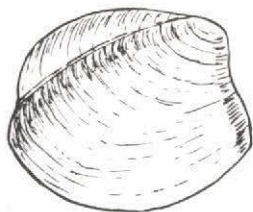
Keasey shale crops out along the tracks as they curve into a tight ox-bow, cross high above State Highway 47 and the upper reaches of Beaver Creek, and pass the expandible shale quarry originally established in 1950 by Smithwick Concrete Products and now operated by Cloverleaf Mines.

Photographers have a rare opportunity to photograph the train crossing over the Beaver Creek Trestle. An imaginative VSP&SSRR train crew stops, unloads shutter-bugs, backs up across the trestle, gets up steam and smoke, and then comes back ---giving the crowd all it could ask for in photogenic steam railroading.

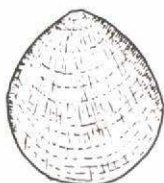
A word or two about the quarry is in order. Keasey shale has the peculiar ability to bloat to several times its original volume when heated in a revolving kiln. Gases generated within the lumps being heated make the shale porous throughout the interior. The surface of each lump has meanwhile become plastic from the heating, and this "skin" prevents the escape of the gases. The same impervious coating also makes the lightweight aggregate watertight when it is mixed with cement to make concrete, thus creating a lighter, lightweight concrete. Aside from its purely economic aspects, the quarry and nearby roadcuts have produced many excellently preserved marine fossils. Small crabs have been found in baseball-sized calcareous concretions, but the ratio of crabs recovered to concretions opened is rather small and the concretions are rather hard to crack.

The quarry area is also unique in that the rare fossil crinoid *Isocrinus nehalemensis* has been found there. Crinoids, or "sea lillies" are found

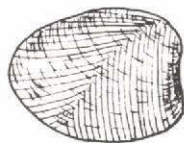




THYASIRA



GLYCYMERIS



ACILA



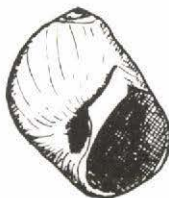
DELECTOPORA



EPITONIUM



EXILIA



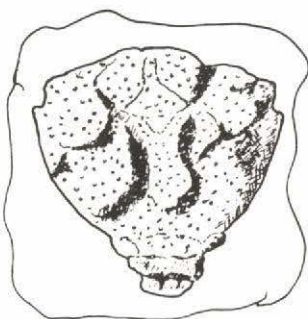
POLINICES



BRUCLARKIA



DENTALIUM

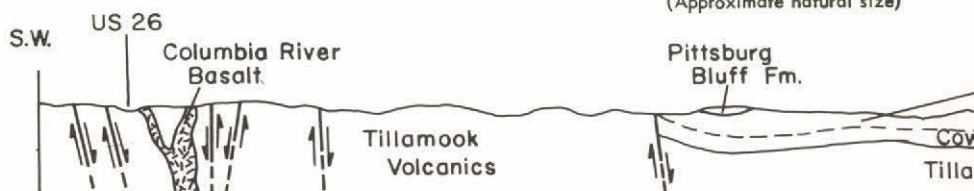


ZANTHOPSIS (Carapace)



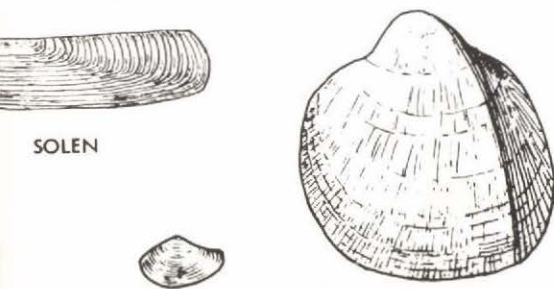
SHARK TOOTH

SOME TYPICAL FOSSILS OF THE SUNSET HIGHWAY
(Approximate natural size)



SW-NE STRUCTURE SECTION THROUGH CO





SOLEN

NUCULANA

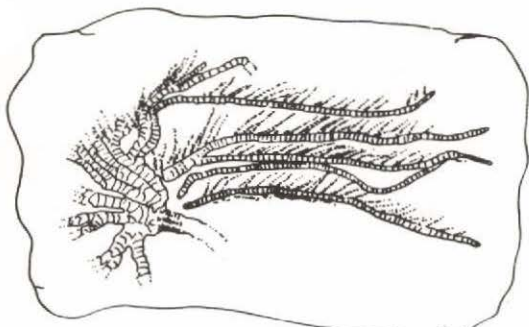
NEMOCARDIUM



MOLOPOPHORUS



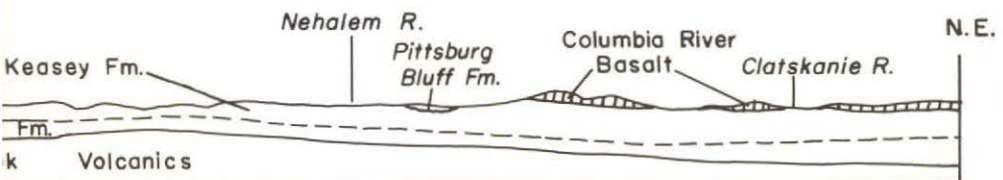
CANCELLARIA



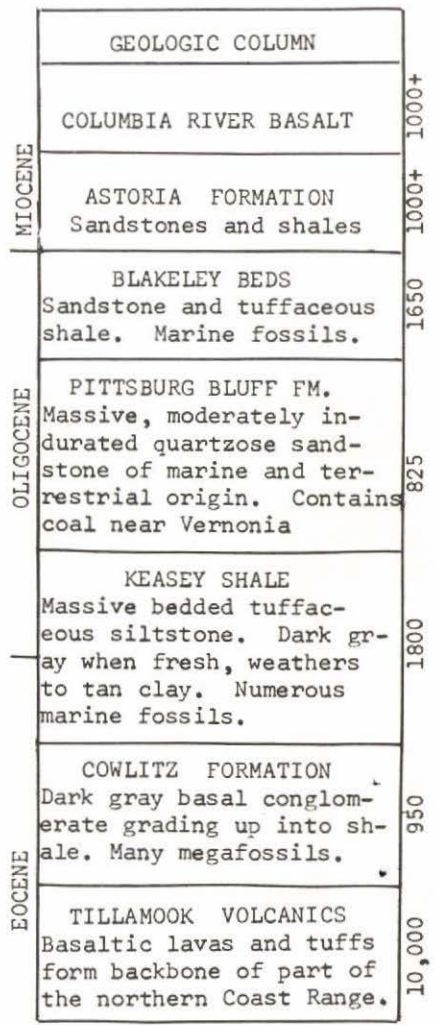
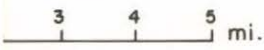
ISOCRINUS (Stem, cup, & arms)

DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

AREA, OREGON



T RANGE NEAR VERNONIA, OREGON



Approximate thickness of formations shown along right side.



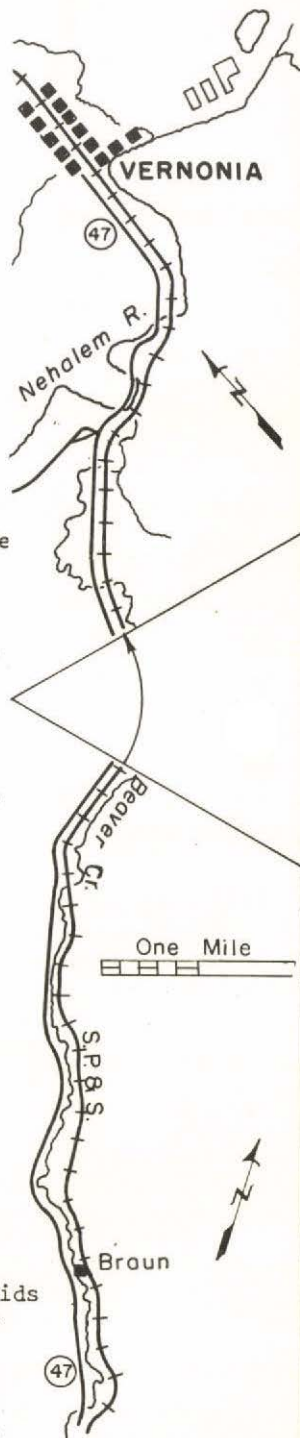
at only a few places in the world in Tertiary age rocks.

From here on in to Vernonia all of the surface rock, with the minor exception of some Recent alluvium along Beaver Creek and the Nehalem River, is Keasey shale. Incidentally, the term "Keasey" is derived from the now extinct lumber town of the same name located about seven airline miles west of Vernonia on the abandoned SP&S tracks, now removed, which at one time continued through prime logging country for many more miles westward. Today the hills lining both sides of the SP&S tracks are covered with a thick stand of second growth trees which hide the stumps of the logging a generation ago. Some 10 foot stumps can be seen beside the track near Braun Siding a few miles below the quarry. The springboard holes are still in evidence in some of them.

About one mile south of Vernonia the tracks cross over the Nehalem River, which rises near Timber in Washington County and then circles counterclockwise up through Columbia and Clatsop counties and finally down to the coast at Nehalem Bay in Tillamook County.

REFERENCES

- Moore, R.C., and Vokes, H.E., Lower Tertiary crinoids from northwestern Oregon: U.S. Geol. Survey Prof. Paper 233-E, 1953.
- Schenck, Hubert G., 1928, Stratigraphic relations of western Oregon Oligocene formations: California Univ. Dept. Geol. Sci. Bull., v. 18 no. 1.



- Steere, Margaret L., 1957. Fossil localities of the Sunset Highway area, Oregon: State of Ore. Dept. of Geol. & Min. Ind., The Ore.-Bin, Vol 19, no.5.
- Warren, W.C. and Norbistrath, Hans, 1946, Stratigraphy of upper Nehalem River basin, northwestern Oregon: Am. Assoc. Petrol. Geol. Bull., v. 30, no. 2.
- Warren, W.C., Norbistrath, Hans, and Grivetti, R.M., 1945, Geology of northwestern Oregon west of the Willamette River and north of latitude 45°15': U.S. Geol. Survey, Oil and Gas Inv. Prelim. Map 42, with text.
- Weaver, Charles E., 1942, Paleontology of the marine Tertiary formations of Oregon and Washington, Parts 1,2,and 3: Wash. Univ. Pub. in Geology., vol. 5.

GLOSSARY OF SELECTED GEOLOGIC TERMS

- Calcareous Lime-containing, or lime-cemented. Opposite of gregarious, which has no lime at all.
- Concretion A hardened mass of stone, cemented with lime or silica, often forming in spherical masses around a fossil.
- Fossil Preserved remains of plants and animals older than the close of the Pleistocene. Most fossils are found in fine-grained sedimentary rocks. Frozen mammoths and mastodons are a special type of fossil. Although rumors persist that their flesh is edible this is not so. A sled dog interviewed a few years ago admitted that he ate some of the meat only because the party chief wanted a picture and promised him two extra salmon. He went along with the gag, and gag he did.
- Impression The feeling you get at about this point that geology is a lot of fun but that it is not an exact science.
- Tuffaceous Denotes presence of volcanic ash and debris, usually incorporated into a sediment. Weathered volcanic ash often turns into bentonite, a peculiar clay which has a great affinity for oils and greases. Commonly used for garage floor sweeping compounds and facial packs.

GEOLOGIC TIME CHART

AGE DIVISIONS			DOMINANT LIFE		TIME			
ERA	PERIOD	EPOCH	ANIMAL	PLANT	ERA	DURATION IN MILLIONS OF YEARS		BEGINNING MILLIONS OF YEARS AGO *
						PERIOD	EPOCH	
		QUATERNARY	RECENT PLEISTOCENE	MAN			1.011	0.011
CENOZOIC	TERTIARY	PLIOCENE	MAMMALS	FLOWERING TREES AND SHRUBS	63.011	62	12	13
		MIOCENE	BONY FISH				12	25
		OLIGOCENE	BIRDS				11	36
		EOCENE	SHELL FISH				22	58
		PALEOCENE**	ARTHROPODS				5	63
MESOZOIC	CRETACEOUS			CONIFERS CYCADS GINKGOS FERNS	167	72	135	
	JURASSIC		REPTILES			46	181	
	TRIASSIC					49	230	
PALEOZOIC	PERMIAN			SCALE TREES	370	50	280	
	PENNSYLVANIAN	CARBONIFEROUS	AMPHIBIANS INSECTS	CORDAITES TREE FERNS		40	320	
	MISSISSIPPIAN			CALAMITES		25	345	
	DEVONIAN		SHARKS	PRIMITIVE SCALE TREES AND TREE FERNS		60	405	
	SILURIAN**		LUNGFISH	PSILOPHYTES		20	425	
	ORDOVICIAN**		CORALS BRACHIOPODS			75	500	
	CAMBRIAN**		ECHINODERMS TRILOBITES	FUNGI ALGAE		100	600	
PRE-CAMBRIAN	GRENVILLE OROGENY**		BEGINNING OF PRIMITIVE PLANT AND ANIMAL LIFE		4000		1000	
	OLDEST KNOWN ROCKS IN NORTH AMERICA**						3200	
	OLDEST KNOWN ROCKS (MURMANSK AREA)**						3400	
	PROBABLE AGE OF THE EARTH						4600	

* ADAPTED FROM KULP, 1961

** ROCKS OF THIS AGE NOT KNOWN TO EXIST IN OREGON

STATE OF OREGON
DEPARTMENT OF GEOLOGY
AND MINERAL INDUSTRIES

U. G. SWEN
17 JAN 61

RAILROAD TERMS, SIGNS AND SIGNALS

Railroad grades are measured by the number of feet of rise in 100 feet of track, expressed as a per cent grade. The average grade from Banks to Tophill is 2.3%, a rise of 2.3 feet for 100 feet of travel. Near Tophill the grade is 2.5%, and on each side of the summit it is more than 5%.

WHISTLE SIGNALS

The signals are illustrated by "o" for a short toot(1-1/2 to 2"); "-" for longer toots, and "—" for extra long toots. The "fist" or signalling of the engineer is as distinctive as handwriting and can be recognized by experienced listeners.

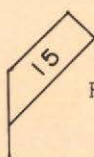
- o Apply brakes, stop
- - Release brakes, proceed
- o o o Back up
- Approaching station
- o o o Flagman protect rear of train
- - - - Flagman return from west or south
- - - - - Flagman return from east or north
- - o - Approaching public crossing
- o o o o Object on track! (short and sharp)

SIGNS

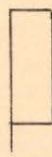
Mileages indicated are from Portland terminal. Banks, 27.5 miles, Vernonia, 48.5 miles.

15

Maximum speed
miles per hour



Reduce speed



Resume speed

1
MILE
S

Station 1 mile

W

Whistle
for station

W
X

Whistle for
crossing

Engine signal flags (mounted on front of engine) plus signal lights. Green indicates another section following; white indicates an extra train.



OBJECTIVES

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*, the establishment and maintenance of a library and museum of geological works, maps and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigations in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of better acquaintance and closer association among those engaged in the above activities.

*The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

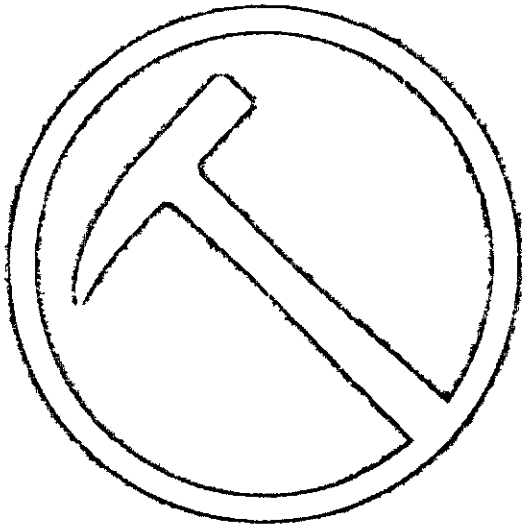
ACTIVITIES

Evening meetings: Illustrated lectures, usually in Library Hall. Second and fourth Fridays of each month at 7:30 p.m.

Field Trips: Usually one each month.

Library Night: Usually one each month

Luncheons: Informal, Mountain Room of downtown YMCA, Thursday noon.



Official Publication of the Geological Society of the Oregon Country

June, 1964

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

return postage guaranteed.

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR JUNE 1964

All activities of the Geological Society scheduled below will meet on Pacific Daylight Saving Time.

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Ave. (use Taylor St. entrance).

12:00 Noon - Food may be purchased in the Main Cafeteria, either à la carte or regular lunch. The group meets in the "Mountain Room", a private dining room nearby. During these luncheons, publications and specimens are examined and discussed and short talks on geology are heard.

For more information telephone Mr. Leo Simon, Luncheons Chairman, at 236-0549 (residence) or 223-0300 (business).

June 6 & 7

FIELD TRIP - Overnight camping trip to Painted Hills State Park.

Saturday
&
Sunday

Saturday - The group will congregate at the camping area of Painted Hills State Park. Turnoff on U. S. Highway 26 to park is about 3 miles west of the town of Mitchell. Follow directional signs on gravel road along Bridge Creek to the park. Time of arrival at Painted Hills is optional since the group will camp at the park overnight.

Mr. Albert R. Kenney, Field Trip Leader, has indicated that there is no water available at the camp. Those planning to camp must bring their own water supply in addition to the usual camping gear.

Sunday - The group will caravan to Picture Gorge and Thomas Condon Fossil Beds State Park. The day's activities will probably include a hike into the famous "Turtle Cove".

For more information telephone Mr. Kenney at 775-5697, or Mr. C. T. L. Murphy, Field Trips Chairman at 282-2027.

June 12
Friday

LECTURE - Public Library (room A, Main Branch), 801 S. W. 10th Ave.

7:30 P. M. - Dr. Ray A. Broderson will speak to the Society about "Schlieren in the Cathedral Peak Pluton, Sierra Nevada, California". Dr. Broderson is with the Department of Geology at Oregon College of Education in Monmouth, Oregon.

9:00 P. M. - Social hour with refreshments following the lecture.

June 16
Tuesday

LIBRARY NIGHT - Not scheduled during the summer months.

June 26
Friday

LECTURE - Public Library (room A, Main Branch), 801 S. W. 10th Ave.

7:30 P. M. - Mr. Leverett Richards (who was unable to make his scheduled appearance in May) will present an interesting and informative talk about the Good Friday earthquake in Alaska. His talk will be highlighted with slides taken during a recent trip to the area. Mr. Richards is the Aviation Editor of The Oregonian.

9:00 P. M. - Social hour and refreshments following the program.

THIRD ANNUAL TRAIN TRIP TO MADRAS

By Emily Moltzner

When our Vice President FRED MILLER asked me if I'd like to make the trip in exchange for selling the "Trip Log" I replied, "Oh boy! Would I!" "Okeh, you're hired", he said. I chose ELIZABETH GILLIAM as my helper.

These excursions, sponsored by Vernonia, South Park & Sunset Steam R. R. of Banks, Oregon, continue gaining in popularity. On May 17th a dozen or more GSOCers were among the 1200 passengers, several, including the writer, the second time, as we wound through Columbia Gorge and Deschutes Canyon, the latter called by many "The Grand Canyon of Oregon." Unique in the United States, perhaps in the world, are its fascinating, multi-colored geologic formations which can be seen only by train, unless one be venture-some enough to attempt the river by boat.

At Madras we were greeted by fellow-GESOCers MR. and MRS. BROGAN (PHIL and LOUISE) of Bend, who, except for the bus strike, would have boarded the train at Portland. Phil reports sales of his book "East of the Cascades", now in its second edition, are holding up extremely well. Its wealth of history and geology and its easy readability assure its welcome in the library of all interested in these subjects. For special coverage of the river see its Chapter 3 "The Strange Deschutes."

Three staff writers of The Oregon Journal made the journey and have written their impressions. See J. EDWARD REID'S story May 18, Columnist DICK FAGAN'S "mill ends" May 20 and ERIC GORANSON'S account of May 21. If you're interested in buying pictures, contact Mr. Goranson at The Journal.

For geological information we recommend the "Trip Log" by DR. PAUL W. HOWELL, and for history, its "Footnote to the Oregon Trunk" by WM. (BILL) FREER, prepared for the first trip May 20, 1962, and re-issued each year.

Special appreciation is expressed to CHARLES (CHUCK) HAYDEN, President of VSP & SSRR, his many committees and individuals for their unstinted efforts which made the trip the success it was and to the train crew who, despite mechanical difficulties, brought us safely home.

Note: Since writing the above I've learned that our President IRVING (IRV) EWEN and JACK McCOURTNEY made the May 24th trip. Though quite busy selling Trip Logs, IRV says both he and JACK agree that the marvels of geology even exceeded their expectations, the journey was delightful throughout and will be cherished forever as a memorable holiday.

* * * * *

MEMBERSHIP ROSTER

name	street address	city	state	telephone
NEW MEMBERS				
Bishop, Mrs. Shirley	4810 S. E. 35th Avenue	Portland, Oregon		775-2163
Eid, Mr. & Mrs. Cy	5615 N. Willamette Blvd.	Portland, Oregon		289-6662
Lyons, Dr. & Mrs. Richard B.	6852 S. W. Burlingame Ave.	Portland, Oregon		244-9729
McCourtney, Mr. Jack R.	2632 S. E. Ash St.	Portland, Oregon		232-2441

ADDRESS CHANGE

Kastner, Mr. & Mrs. Albert D.	6309 S. E. Overland Street	Portland 22, Oregon
-------------------------------	----------------------------	---------------------

RESIGNATIONS

Hughes, Mr. Steven*
 Jackson, Miss Eleanor L.*
 Nelson, Mr. & Mrs. Jack O.
 Willson, Mr. & Mrs. Kenneth

* Junior Member

HOMO SAPIEN RETURNS TO APE CAVE

By Clara L. Bartholomay

On Sunday, April 26, 50 intrepid GESOCers met at Amboy, Washington and under the guidance of Al Kenney proceeded in a 21-car caravan to Speilia to visit the general store run by Mr. & Mrs. Harry Reese and their sons, Leonard and Bob. Mr. Reese welcomed us and told us about the background of the proposed St. Helens playground area. The Reese family is working fervently to get 17,000 acres, which are owned by several prominent lumber companies, the U.S. Forest Service, and the State of Washington, set aside as an area for the preservation of the natural features and as a recreational area. The area has little value for either farming or logging. The Forest Service is in the process of acquiring blocks of land in the area and a look at the Forest Service map shows ownership of almost all alternating sections by the Forest Service.

The caravan continued on past Lake Merwin, Yale Lake, and Swift Creek Dam site and up the Cougar Creek Road to a sign which informed us that Ape Cave was one mile to the left. We parked at the snow line and started our gentle uphill climb to the cave entrance. We were confronted with névé (granulated snow) approximately one to two feet deep which was a real challenge to sure footing and a special challenge to leg muscles. (I personally thought the one mile sign was a gross understatement!) We took time to notice the Douglas Firs, Western Red Cedars, Western Hemlocks, Lodgepole Pines, and Grand Firs growing at this 2500-2700 foot elevation. We saw some interesting four- to six-foot high Red Alders with an hourglass shape; the bare branches of the top half of the tree reached up while the bottom half of the branches had been bent down by the weight of the snow with the branch tips still buried in the névé.

Now for a bit of background material to help us better understand Ape Cave.

In the Cascade Mountains of Washington, in the lava flows south of Mount Adams and Mount St. Helens, a number of lava-tube caves, or tunnels, have been found in central Skamania County and in the adjoining counties. Twenty-three caves have been explored in this area. The lava-tube caves have been found only in flows of pahoehoe basalt and appear to have been formed in late Pleistocene and Recent times. More lava-tube caves are found in Lava Bed National Monument in California (over 200) than in Washington, and there may be more in the Bend area of Oregon than in Washington. Dense vegetation, debris, and inaccessibility to some areas undoubtedly hamper the discovery of more caves. Accurate surveying and mapping of lava tubes is, at times, extremely difficult because of the physical effort involved and because the magnetite in the lava flows causes compass deviations. Speleology (the scientific study of caves) is still in its infancy.

There is no evidence that the Indians used the lava-tube caves as they have been formed too recently. Ape Cave is about 2000 years old as determined by Carbon-14 dating of a piece of wood which was found in a lava cast and was probably one of the existing species, possibly fir.

Lava-tube caves are formed during the process of flowage and cooling of a lava stream. The top of the flow cools enough to form a crust which holds its shape while the interior material is still in a molten state. Under favorable conditions the molten material will drain away leaving a natural cave.

Ape Cave was discovered in 1951 by a logger who almost drove his caterpillar into the lower entrance of the cave while clearing brush. Ladders were built and the cave was explored in the spring of 1952. The name of the cave was chosen by the St. Helens Apes, the first explorers. (The St. Helens Apes, a group of young outdoorsmen, took their name from an incident in which several prospectors claimed that rocks were thrown at them by an ape-man, which, incidentally, has never been seen again.)

Ape Cave is the largest cave in Washington and is the longest unitary lava-tube cave known in the United States. It is about 11,215 feet long and has a descent of approximately 700 feet as measured hydrostatically.

The roof of Ape Cave has collapsed in two areas permitting entrance to the cave. The

Homo Sapien Returns to Ape Cave - cont'd

upper entrance is about 500 feet from the north end of the cave and the lower main entrance, where we entered, is located about .7 of a mile from the southern end of the cave. The main entrance is about 15 feet in diameter where we climbed down 20 feet on a makeshift ladder to a small upper level. This level was still in the open and grass-covered. Then we peered into another opening and saw another ladder which seemed to be very narrow and very straight down. (Is this what they mean by keeping on the straight and narrow?) This dropped 30 feet down into a dark abyss to the main tube level. Gasoline lanterns, headlamps, and flashlights provided the proverbial rays of sunshine in our dark hour.

The height of the cave (in the .7 mile that we hiked) varied from seven to 50 feet and the width from ten to 50 feet. The cave trends in a north-south direction with the upper fourth curving gently to the southwest and the remainder running south-southeast with the extremely lower part swinging to the southwest. On a winter's day the temperature at the cave entrance was measured at 34°F while the temperature inside the cave was 42°F. Where the cave is more narrow, air currents moving up have been measured at seven miles per hour. Certain areas of the ceiling and walls have a considerable amount of dripping water which is contingent upon the amount of moisture above ground. During our visit a small, seasonal rivulet was evident. Evidence of stream activity in the cave is quite obvious in certain areas as there are deposits as much as two feet thick of pumiceous sand and gravel and pieces of wood and small logs have been washed in.

Two domed areas were noted in the ceiling where extremely large gas bubbles had caused a great deal of expansion. A few small lava stalactites were suspended from the ceiling. In certain areas an upper level is evident in the cave. In one such place, a large rounded chockstone was wedged in a narrow passage, and with extreme faith, we walked beneath it!

In places the floor is quite smooth while in others it has more of a ropy pahoehoe or granulated texture. Lateral flow marks and ridges are quite well developed and record temporary levels of the lava stream. The lower end of the cave is blocked by stream deposits.

An interesting insect was found in the cave by Harry Reese in November 1959. It is a new representative of Crthopterid (fourth order class Insecta) of the group Grylloblattoidea (Orthoptera) and has been named Grylloblatta Chirurgica. Chirurgica is a specific name adapted from two Latin words meaning "pertaining to the surgeon." This refers to Dr. W. R. Halliday who is an M.D. and who also is the Director of the Washington Speleological Survey who helped obtain some living specimens. It was proposed to have this species named after Harry Reese but he declined in deference to Dr. Halliday.

Grylloblattoidea were first found in Siberia in 1934. Tree stumps and dark damp places are their native habitat. They are about the same diameter as a wooden match stick and about one inch long; white or colorless and resemble crickets. It was Mr. Reese's opinion that they subsist on the slime that is to be found growing in some areas of the cave.

Two species of hibernating bats have been found in the dry sections of the cave; brown Myotis and the long-eared Corynorhinus refinesqui.

We climbed out of the cave (with a little better understanding of the name) and went stumblingly down the trail to the parking area. When we had almost reached the end of the trail, Bob Reese lured about a dozen of us on an extra little side trip by telling us that lava casts of trees were to be found just a short distance away so we ploughed on through MORE snow!

Tree casts are formed when a stream of molten lava flows through a wooded area engulfing the trees. The trees may burn or become charred and the hardened lava has captured a perfect imprint of the once living tree. Some of the tree wells were exposed and others were buried in snow drifts which would make the area quite precarious for hiking if a person was not aware of them. The half dozen tree wells we saw varied from one-half to three feet in diameter and were from a few feet to 40 feet deep; the depth

Home Sapien Returns to Ape Cave - cont'd

depending upon the thickness of the lava flow on the original surface. The lave flow from the cave became a surface flow in the tree cast area and can be traced down to the river level. Bob told us that several of the wells contained deer which had fallen in and were unable to get out.

We returned to the parking area with quite a sense of accomplishment -- and exhaustion!

A weary but HEARTY thanks to Al Kenney for an interesting and lively trip!

CARBORUNDUM AS A MINERAL OF MAN

The May 8th program, at the library, was presented by Mr. Laurence Sandstrom of the Carborundum Corporation division at Vancouver, Washington. While the end product, carborundum, is not a mineral, since it is not a naturally occurring substance in the earth, it does crystallize, and falls into the pattern of natural abrasives such as emery and corundum. Waving aside the technicality, the program made an excellent addition to our year's theme "Man and His Minerals".

Mr. Sandstrom commenced his lecture with a general discussion of the production of carborundum products, and similarity to a natural mineral moissanite, which has been found in natural green hexagonal plates in the meteoric iron of Canyon Diablo, Arizona. Petroleum coke is crushed with quite pure silica sand, and fused in a 48 foot furnace, at the Vancouver plant, resulting in a crystalline and crystallized form. The addition of salt produces the more brittle green form. Actually, the entire product is green, with surface iridescence. Carborundum was originally produced at Niagara Falls, New York, because of the abundance of electrical power there. The presence of Bonneville Dam, led to the establishment of the plant at Vancouver. A somewhat larger plant is in production in Quebec, Canada, while another plant at Arendal, Norway, takes care of the European market.

The film shown, dramatically illustrated the process of the crystallization of carborundum in minute quantities in an eight inch hollow in a carbon rod. The entire process was viewed thru a thermal microscope arrangement, that reflected the operation by a mirror, thru an optical arrangement to a normal microscope. A camera, placed back of the microscope, recorded the sequence of the action thru the various phases. This is the briefest of abstracts of Mr. Sandstrom's lecture.

John F. Mihelcic

INFORMATION FOR FIELD TRIP TO PAINTED HILLS

June 6 & 7, 1964

A week-end camping trip to this interesting area in the Ochoco Mountains near Mitchell will be led by Al Kenney. This country is replete with formations some of which may date back to the Cretaceous. Clarno, John Day, Mascall and Rattlesnake formations are prominent here. Columbia River basalt is exposed at Picture Gorge. The Painted Hills themselves invite color photography. Thomas Condon Park will be visited. Fossils and rock crystals are available to collectors.

Trippers will make headquarters at Painted Hills State Park. Turn off US 26 three miles west of Mitchell on a gravel road that follows Bridge Creek. This is a primitive camp site with No water. Campers will bring their own supply of water. For those who can spare the time the 175 mile drive over from Portland on Friday will give additional time on Saturday morning for exploration of this interesting country.

Bring campgear, Water, cameras, water, hiking and perhaps rain gear, topographical or For estry Department maps, water.

C T L M

A GOOD MAN IN THE BAD LANDS

When we called Leverett Richards to confirm his lecture on the Alaskan earthquake for the Friday evening, May 22nd Library meeting and found he couldn't make it, we immediately called the program Chairman and said:

"Irv, Leverett can't make it for Friday evening. What'll we do now?"

"Heavens to Betsey! I don't know, but try to think of something fast. When you do, call me back. If you can't get me, call the President. If you can't get him, call the Editor of the Newsletter."

Leaving the office in a somewhat earthquaken state of mind, we hadn't traversed more than two blocks before we discovered that our homeward path intersected the homeward path of Hugh Owen, the Chairman of the Social Committee.

"Hello, Hugh. How's everything?"

"Fine, Bill. How's everything with you?"

"Not so good, Hugh. We're fresh out of a program for Friday evening. Can you think of anything?"

"Well . . . In a pinch I could show you my slides of the Bad Lands and the Black Hills of South Dakota. Mt. Rushmore, and that sort of thing"

"Would you really?"

"Of course. There's just one thing. I'd have to cut it a little short, because I have to serve the refreshments afterward. I might have to cut it even shorter, because the exchequer is so low that I'm going to make the punch myself to save money."

"Fine! I'll help you. You're a good man, Hugh!"

Safely at home, we called the Program Chairman, but we couldn't get him. We called the President, and we couldn't get him either. We couldn't get the Editor. So we had our supper and wrote out our notices for the newspapers. Then we began calling again. This time we got the Editor.

"Irv, we couldn't get the Program Chairman or the President, so we're calling you."

"That's not surprising, because we all had dinner together tonight. We're always having conferences, you know - -"

Now that we've used up all our space telling you how this came about, we can't tell you about the superb color slides of the Bad Lands, and Mt. Rushmore in the Black Hills; of the Black Canyon of the Gunnison in Colorado; the Grand Tetons in Wyoming, or of the charm of the smoothly polished commentary laced with subtle humor like nuts in a fruit cake. But afterwards, while we were mixing the punch, we couldn't help reflecting that if Hugh were only a ventriloquist, he'd be a pretty good all-around man.

William M. Freer

ABBREVIATED SCHEDULE

The Social Committee has informed us that henceforth the social hour after Friday evening Lecture Meetings will be held only on the fourth Fridays. Since the social hour is operating at a deficit it is hoped that once a month may adequately fill the needs of the Society without putting such a strain on the members' pocketbooks.

Note: An exception to the "abbreviated schedule" will be made on Friday, June 12th, when the Society will have the opportunity to hear and meet Dr. Ray Broder-son from Oregon College of Education at Monmouth, Oregon.

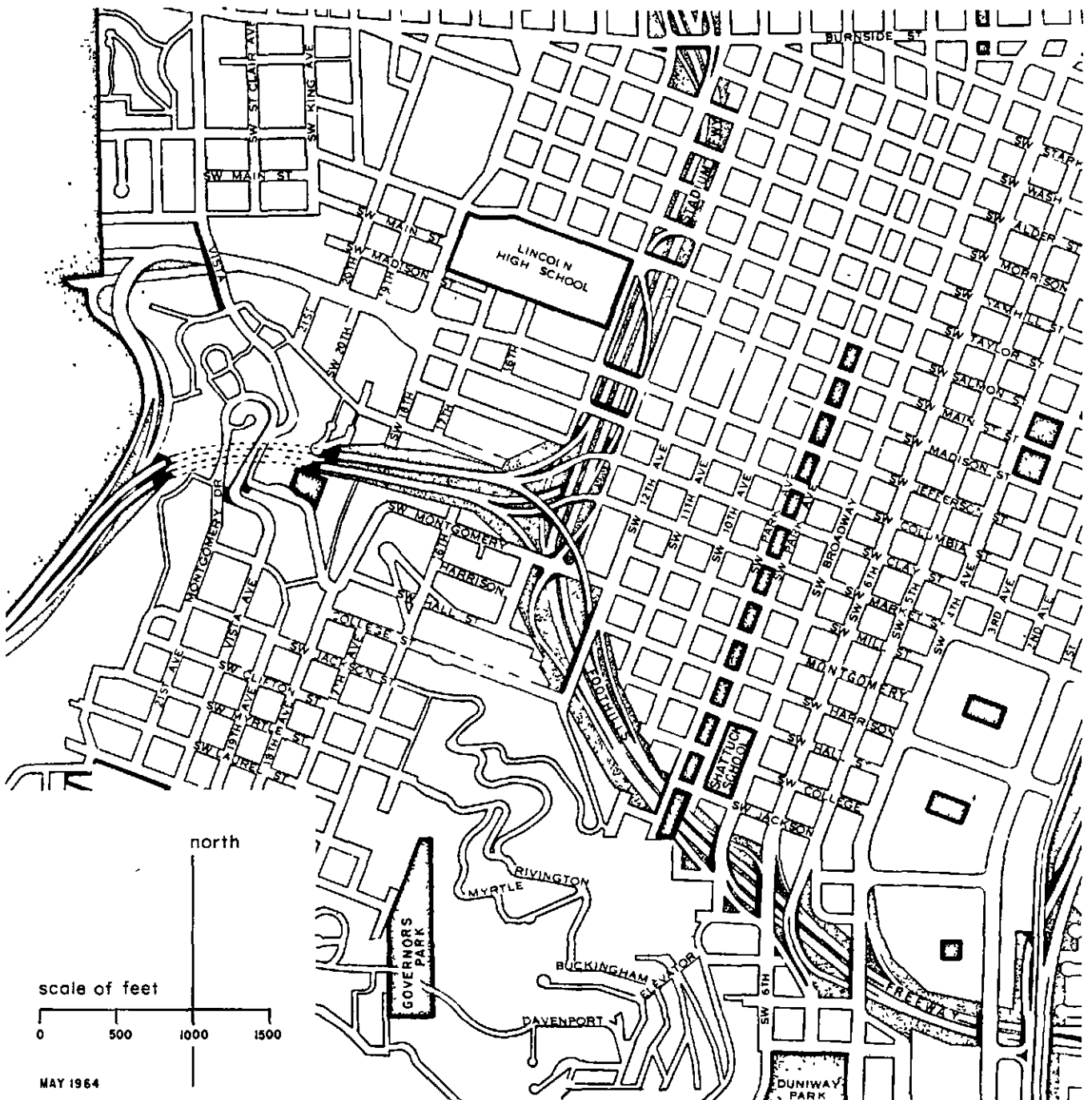
GROUND HOG DAY FOR G. S. O. C.
by Albert R. Kenney

Is the West Hills an anticline or is it a monocline with a fault scarp on the eastern edge?

In hopes of ferreting out an answer to this geological conundrum, approximately fifty members of the Geological Society of the Oregon Country assembled on April 12, 1964, at 2:30 P. M. at the Mill Street entrance of a thousand foot pilot bore to tour it as a guest of the Oregon State Highway Department. It was an excellent turnout considering the weather conditions. Old Pluvius had out-talked our volatile field trip chairman, Truman Murphy.

The group was met by three representatives of the State Highway Department, Albert V. Benedict, Ray Pyle, and Fred B. Klaboe, who explained that this bore was

(over)



Ground Hog Day for GSOC - cont'd

made for the purpose of garnering information for bidding contractors. The planned project is two tunnels parallel to each other to accommodate two lanes of traffic.

After signing the proper releases, this assemblage in assorted protective headgear and carrying gas lanterns and flashlights, entered the Stygian Gates and was swallowed by the mountain.

The mouth of the tunnel was four feet wide and seven feet high. The tunnel, itself, was one-thousand feet long and slightly curved. The rock strata encountered were Columbia River Basalts and Portland Hills Silts. The Coriba was encountered in a contact zone between flows with very prominent contact areas displayed. The contact was on a very rough and uneven initial surface of a previous flow. The elevation of the contacts varied not only in the direction of the tunnel but also across the width. In some places the elevation varied as much as four to six feet vertically in a width of about the same dimensions. The flows were varied in character, ranging from massive with columnar jointing to brick bat to scoriaceous, depending upon the location. Many areas appeared to be pillow flows indicating deposition in water possibly by lake or ponding situations.

The pillow flow structure was further born out by the presence of the mineral palagonite. Palagonite is the end result of the breaking down of basaltic glass. Tapolite formed when the lavas are suddenly chilled. The palagonite is a yellow colored earthy or clay-like material frequently found in Coriba. Many other items of interest were to be found including opalited streaks and cones. Toward the western end of the tunnel the ceiling showed many gas or steam pockets, probably formed when the hot laves poured out over a moist surface. The vesicles or pockets were often filled with other clay minerals.

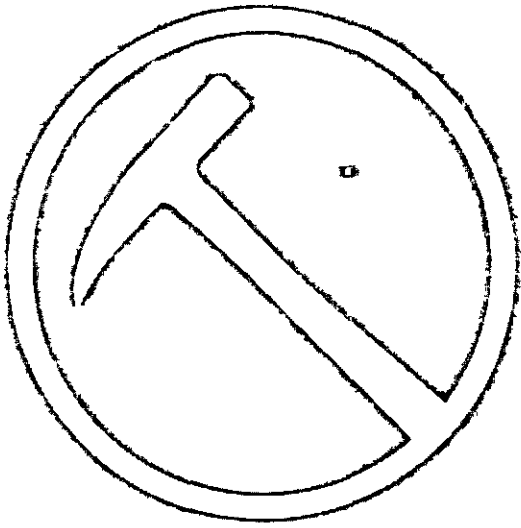
At the west end of the tunnel the group gathered around to listen to a few ?? words of wisdom from Truman who had finally arranged better weather with the local Chamber of Commerce, and to listen to a discussion of the rocks encountered by Dr. Paul Howell. The representatives of the highway department gave a brief outline of the proposed project and answered questions. After this the group returned by way of the tunnel and disbanded.

Insofar as this writer is concerned, the major item to watch for is an overall dip of the strata to shed some light on this controversial subject of a West Hills anticline versus a major fault zone. Both schools of thought have exchanged views upon this subject with no final or determinate answer to date. Unfortunately, the dip and strike evidence visible in the tunnel was as inconclusive as the previous arguments so nothing could be determined. Several fault zones are cut by the tunnel with minor displacements evident. The tunnel was for the most part untimbered, but the incompetency of the faulted areas was demonstrated by the heavy timbering and shoring necessary when cutting across them.

All in all this was a very satisfactory trip with many points of interest and extremely informative. For many of our members it was their first tour underground and various reactions were noted.

The society is deeply indebted to the Highway Department for making this trip another GSOC success.

* * * * *



Official Publication of the Geological Society of the Oregon Country

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR JULY 1964

All functions of the Geological Society indicated below will meet on Pacific Daylight Saving Time.

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue (use Taylor Street entrance).
12:00 Noon - In the main cafeteria, varied food selections to suit individual tastes are available for purchase. Food items may then be taken to the "Mountain Room" (past the "Foothills Room") adjacent to the main cafeteria. Here in an informal atmosphere, GSOC'ers and friends gather each week to examine and discuss publications and specimens and occasionally hear short talks on geology and related subjects.

Advance notice or reservations are not necessary to attend the luncheons. For more information telephone the Luncheons Chairman, Mr. Leo F. Simon, at 236-0549 (home) or 223-0300 (business).

July 10
Friday

LECTURE - Public Library (room A , Main Branch), 801 S. W. 10th Avenue
7:30 P. M. - "Sources and Geologic Crigins of Northwest Ceramic Mater-ials" is the title of the talk to be given by Mr. Hal Kelly, Ceramist with the United States Bureau of Mines offices at Albany, Oregon. The lecture by Mr. Kelly is part of the series being presented by the Society on "Man and His Minerals".

July 21
Tuesday

LIBRARY NIGHT - Not scheduled during the summer months.

July 24
Friday

LECTURE - Public Library (room A, Main Branch), 801 S. W. 10th Avenue
7:30 P. M. - "Engineering Geology" is the topic to be presented by Mr. Dell Snyder, Chief of the Geology Section, Portland District, U. S. Army Corps of Engineers.

July 26
Sunday

FIELD TRIP - Lolo Pass (Oregon) via private car caravan.

8:45 A. M. - Assemble at Brightwood, Oregon which is about 13 miles east of Sandy on U. S. Highway 26.

9:00 A. M. - Depart from Brightwood to visit quarry nearby. Caravan will then proceed to Lolo Pass via Truman Road which leaves the main highway near the village of Zig-Zag.

An interesting trip has been scouted by Dr. Paul W. Howell, Field Trip Leader. If good weather prevails, GSOC'ers will have excellent picture-worthy views of Mt. Hood and the surrounding country.

Bring the usual necessities - lunches, cameras, geology picks, etc. and rain gear in case of inclement weather. For more information telephone Dr. Howell at 244-5728 or the Field Trips Chairman, Mr. C. T. L. Murphy, at 282-2027.

*_*_*_*_*_*_*_*_*_*_*_*_*_*_*_*

ADVANCE CALENDAR FOR AUGUST 1964

Every
Thursday

LUNCHEON - As usual at Y. M. C. A. See July Calendar (above) for details.

Aug. 14-Fri.

ANNUAL PICNIC - To be held in cinder cone at Mt. Tabor Park. (Nolectures scheduled during August.)

Aug. 18-Tues.

LIBRARY NIGHT - Not scheduled during the summer months.

Aug 23-Sun.

FIELD TRIP - Charter excursion by steam train of V. S. P. & S. S. R. R. (See article "All Aboard"- July, issue of Geological News Letter for details.

Aug. 28-Fri.

LECTURE- None scheduled during August.

INFORMATION FOR JULY FIELD TRIP

The field trip for July will be to Lolo Pass on the road that begins at Truman Road near Zig-Zag on the Mt. Hood road, crosses the ridge to the north and west of Mt. Hood at an elevation of 3400 feet and descends the north slope along Hood River and its tributaries. Dr. Paul Howell, leader, has scouted a very interesting trip including lava flows of four ages and several distinctive formations.

Photographic possibilities are tremendous. New views of Mt. Hood on the north facade beckon the camera enthusiast and striking scenes of Mt. Adams are in the offing. Glaciers, landslides, secondary mineralization of the rocks, deer, birds and the forest all await the travelers.

The car caravan will assemble at the village of Brightwood, shortly after crossing the Salmon River. This corrects a previous rendezvous slated for Truman Road, for a quarry is to be visited near Brightwood. Assembly time is at 8:45 A. M. Sunday morning, July 26th, at the village of Brightwood. Cameras, extra film, lunches, rock hammers are suggested equipment. Roadside springs offer good drinking water.

C. T. L. Murphy
Field Trips Chairman

MEMBERSHIP ROSTER

name	street address	city	state	telephone
NEW MEMBERS				
Fields, Twyla (Mrs. Claude)	3135 Washington St.	Milwaukie	22 Oregon	654-5582
Anderson, Mrs. Marie Z.	3106 Oak Street	Milwaukie	22 Oregon	654-5666

ADDRESS CHANGE

Whitmer, Dr. John H. Veteran's Hospital American Lake, Washington

RESIGNATIONS

- Brice, Mrs. Loyd
- Elliott, Mrs. Lyla L.
- Michel, Mr. & Mrs. Bert
- Newton, Mr. & Mrs. Vernon

MEMBERSHIP CARDS

Once again we have called upon BOB ANDERSON to lend his artistic talents. Inasmuch as the Society's supply of membership cards was nearly depleted, the Executive Committee acted favorably upon the recommendation of President Irv Ewen to have new ones designed and printed.

June 6, 1964

PAINTED HILLS
By Shirley C'Dell

Rowena Hoven and I left the wet, dripping, cold city of Portland on Saturday morning for the great expanses of Eastern Oregon, the car packed with the usual camping equipment and food.

All the papers had printed how much the people East of the Cascades were lamenting about the drouth they have had and we wet sodden westerners would relish some of this drouth so we trapse, over the mountains with great expectations of the lovely sunshine we are to bask in all weekend in shorts and bathing suits. So when we got to Madras you can imagine our disappointed faces when the skies were dropping that old aqua down upon us.

We stopped at Prineville to fill up with gas (for the car) and asked the filling station attendant about the weather. It had been raining for two and a half days and they were thanking God for blessing them with the many storms. He, also, told us that it had been so dry they had found it necessary to bring water in for the cattle in big tank trailers. It seemed that our misfortune was their good fortune and we cheered up like good GSOC'ers and decided to make the best of it.

In the Ochoco Mountains, we saw what looked like some stupid characters trying to cause a landslide. As we went by them, I mentioned to Rowena that one of them looked like Hilda Freed and looking out the back window after passing, they waved at us and Rowena slammed on the brakes and pulled off to the side of the road. We walked back to greet Hilda Freed, her two nieces and Clara Bartholomay, then became stupid characters too and aided them in depleting the rocks a little more by finding some calcite crystals.

When we arrived at the camp grounds, there was faithful Truman Murphy, waiting for the Geology members. He informed us that Mr. and Mrs. Kenney, Mr. Gavigan, Mr. Owen, Mr. Bixby and Sharon Gooch had gone up to the Painted Hills and would be back shortly. After waiting a while to eat our lunch the three of us decided to go out looking for them. On the way, we met them coming back and you never saw a "sadder" but happy looking bunch. Dripping wet with their pockets and bags full of leaf fossils.

I know that there will be a few of the members who are going to be fined by the State Parks Department for carrying away the real estate from the Painted Hills, and can you visualize Hugh Owen with an umbrella in one hand and a G-pick in the other looking frantically for fossils? How I wished I could have gotten a picture.

Finally, about 3:00 in the afternoon, all cars braved the elements and we started for the Painted Hills and fortunately the sun broke through the clouds and we were able to get pictures of the colorful mounds and found Metasequoia, elm, beech, mahonia and prunus leaf fossils, petrified wood and rhyolite by the sackful.

The Painted Hills are part of the John Day Formation and are composed of volcanic ash. The red and green color is caused from iron. The leaf fossils in this area are from the Bridge Creek Flora of the John Day Formation. The John Day Formation was deposited during the upper Oligocene and lower Miocene Periods, 25 to 36 million years ago.

All of us went back to the camp and some cooked out and some went into Mitchell to eat dinner.

The weather looked so ominous that only a few brave ones camped out all night. The rest of us chickened-out and went into Mitchell to find heated dry rooms. Rowena and I stayed at the Mitchell Hotel but the others had to be exclusive and resided on the Heights above the high water line.

(over)

Painted Hills - cont'd.

Truman and Hugh bunked together and all of us swarmed into their suite of rooms for an evening "gabfest". After receiving an invitation from them to come up and cook our breakfast in their kitchen the next morning, we went to our own beds, tired but happy, looking forward to the following day.

When everyone had their "Tummys" full early Sunday, we met the Kenneys and the rest of the campers to form our caravan up the road to Service Creek.

We stopped at one place to hike along one of the ridges which was the result of an uplifted lake bottom during the Triassic which is the earliest period of the Mesozoic era. Here, were schist, limestone and vegetation imprints in the shale.

Hugh Owen's definition of schist is the "early obscene".

From this point, we took another side road in the same area to dig for ammonites which are fossil shells of cephalopods, having the form of a flat spiral and were abundant in the Mesozoic age, 135 million years ago. Cephalopods are a class of mollusks containing the squids, cuttlefishes, octopuses and etc. Hilda Freed's niece and yours truly were the lucky ones to find them. Mr. Kenney was fortunate in finding a Sand Dollar which is a flat circular sea urchin.

Traveling on, we went back through Mitchell and towards Dayville, passing through beautiful faults and followed the John Day River to Mascall Overlook to view the Picture Gorge and Rattle Snake Formation. Our energy was renewed with lunch, at this spot, which gave us the vitality to go on to our next stop. The road was being rebuilt so it was muddy and full of washboards. It reminded me of the roads that existed in the "twenties". Without further ado, we arrived at the Monument to Thomas Condon which is set in cretaceous conglomerate with beautiful Sheep Rock in the background and wonderful examples of the John Day Formation.

For those who do not know about Thomas Condon; he was born 1822 and died in 1907. He was Pioneer Oregon Geologist, teacher, author and clergyman, who came to Oregon around Cape Horn as a pioneer missionary in 1853, who provided a church home at The Dalles for all Christian faiths, who was the first investigator of the fossil beds of the John Day Country, who at the founding of the University of Oregon in 1876 became its first professor of Geology and continued as professor and teacher until 1907, whose Geological classroom was the great out doors and whose book "The Two Islands" was the foundation for the study of the historical Geology of Oregon.

The reading of this lovely tribute to a wonderful man was a good introduction to our visit of his fossil beds in Turtle Cove. Here, I was amazed to see green water running in the creek bed. The reason for this is the ferrous chloride in the hills, (iron to you). A few "mountain goats" climbed close to the top. I was a coward and stayed at the bottom. Mr. Kenney found a piece of bone and Dr. Jones found one which he claims was from the skull of an animal. I don't know how he could tell. One reason could be that he is a medical man but I think that there was a label on it saying "skull". As for Rowena, Hugh, Truman and I, we decided to get our bones at the butcher shop and headed back for Portland via Spray, Clarno, Antelope, Shaniko, Maupin and Government Camp.

Thanks to Al Kenney for a very enlightening trip and no offense intended to the living or to the fossils.

* * * * *

ALL ABOARD!

Another Field Trip by Train - Sunday, August 23, 1964

A special dispatch discloses that GSOC Vice President FRED MILLER and his wife LILLIAN with the generous cooperation of CHARLES E. ("CHUCK") HAYDEN, President of the VERNONIA, SOUTH PARK, AND SUNSET STEAM RAILROAD have "engineered" an exciting FIELD TRIP by STEAM TRAIN.

The forty-two mile (round trip) charter excursion from Banks (Oregon) to Vernonia is scheduled for Sunday afternoon, August 23, 1964. Scheduled departure from Banks is 3:00 P. M. Daylight Saving Time, returning about 7:30 P. M.

Everyone is sure to enjoy this transportation relic of the past. Ladies in particular will be delighted over the "darling" coaches of some fifty odd years ago which have been rejuvenated with fresh paint and other refinements. Others will like the quaint pot-bellied stoves (central heating) and the "pioneer" air conditioning through open windows.

Passengers will experience a thrilling ride behind "OLD CHET", a real live puffing, whistle-blowing STEAM LOCOMOTIVE as the train crosses canyons and streams over high wooden trestles, winds around hairpin curves, and chugs past timbered hillsides to the summit at Top Hill (elevation 1030 feet). After reaching the summit, the train rolls on to Vernonia which was once a booming mill town of the Oregon-American Lumber Company.

Of special interest to PHOTOGRAPHERS will be the photo stop at Beaver Creek Trestle where the track curves like a hairpin. Of course, there are other picture-worthy vistas along the way.

A SNACK BAR on the train will have sandwiches, coffee, ice cream, etc. available at reasonable prices. If preferred, picnic suppers can be brought along.

RALPH S. MASON, Field Trip Leader for this charter excursion, will explain and comment on the geologic points of interest enroute. Ralph, who is well known for his pleasant manner and humor, is the State Mining Engineer with the State of Oregon Department of Geology and Mineral Industries.

A GEOLOGICAL TRIP LOG has been specially prepared for the rail excursions between Banks and Vernonia under the auspices of the Geological Society in cooperation with the VSP&SSRR. FRED MILLER, Chairman of the GSOC Special Publications Committee, has contributed photographs and coordinated the project. RALPH MASON has compiled the narrative text about the geology, and BOB ANDERSON, the Society's Art Advisor, has provided the artwork and layout. The trip log will be available on the train for twenty five cents a copy.

TICKETS TO GSOC FIELD TRIP BY STEAM TRAIN will be available at all regular meetings of the Geological Society during July at the special reduced rate of \$3.00 per person. Half-fare tickets for children under twelve years of age will also be available at \$1.75 each. MR. LEO F. SIMON, master ticket seller, will sell tickets at meetings or accept orders by mail through July 31.

In August, tickets will be available at the regular rate of \$3.50 for adults and \$1.75 for children. After July 31, requests for tickets should be mailed with remittance at the regular rate along with a self-addressed and stamped return envelope to:

V S P & S S R R, Executive Department
2765 S. W. 119th Ave., Beaverton, Ore. - 97005

To reach Banks, Oregon, the best route to follow is U. S. Highway 26 west from Portland to its junction with Oregon State Highway 6 (the highway to Tillamook). Continue on S. H. 6 to the Banks Exit which is well marked.

Emily Moltzner

ERKLARKEN DIE SCHLIEREN

On the night of June 12th the Geological Society of the Oregon Country was treated to one of the most interesting lectures in many a day. Dr. Ray A. Broderson of the Oregon College of Education at Monmouth, with enthusiasm, well chosen illustrations, and in full command of his subject described and displayed for us the schlieren in the granitic rocks of the Sierra Nevada of California, and he did it remarkably well. The subject of schlieren and their origin is generally restricted to classroom discussions, seminar talks, and research work in plutonic petrology. But then, not everyone has a Dr. Broderson to explain such technical subjects to him.

Schlieren is a Germanic word denoting wavy bands or streaks of color in various substances. The schlieren of petrologists are bands of rock or mineral aggregate occurring within the body of large plutonic rock masses. They are most common near the contact of the pluton with the country rock, but are not entirely restricted to this zone. There is some question among petrologists whether schlieren are partially absorbed slivers of country rock or are segregates of mineral matter within the pluton due to reaction between the plutonic magma and the country rock. Dr. Broderson explained that both origins are possible and showed us good examples of both in the area of the Sierra Nevada which he had studied.

As an added bonus we were treated to some beautiful views of the upper Merced River country, one of them looking down from the high country toward Yosemite National Park. Anyone who still does not understand schlieren will just have to pick a pluton and get busy with camera and hand lens. You don't have to go all the way to the Sierra Nevada, either. The Wallow Mountains and some parts of the Siskiyou will do nicely --

Dr. Paul Howell

* * * * *

THE EARTHQUAKE

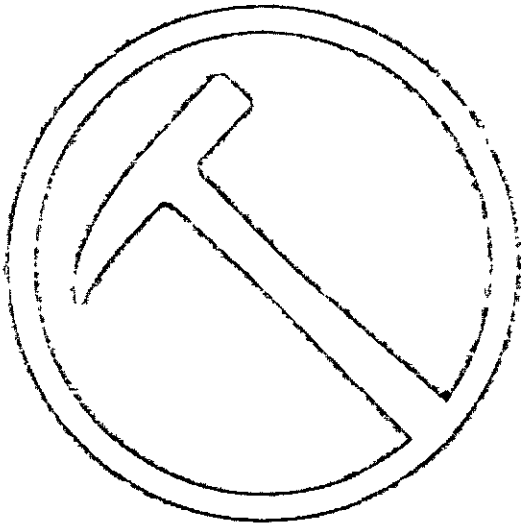
At the June 26th Friday evening Library lecture Leverett Richards, the peripatetic aviation editor of the Oregonian, told us about the Alaskan earthquake, illustrating his talk with excellent colored views taken shortly after his arrival on the scene, which was within twelve hours after it happened. These amazing views, some aerial, some taken on the ground, gave us a vague idea of the staggeringly terrific forces that shredded the terrain on the alluvial formations at the mouths of the fjords on which most of the towns of Alaska are built.

Suffice to say, they will be rebuilt on ground that has been geologically explored in advance. Some 50,000 square miles of Alaska has sunk an average of five and a half feet, while another 50,000 square miles has been heaved up approximately the same amount, and large sections of Alaska will undoubtedly have to be remapped. In the most spectacular views shown us we saw the wreckage of downtown Anchorage in which large buildings were shattered and Fourth Avenue became a split level street when one side of it dropped twenty feet below the other side, the shredded Turnagain residential section completely ruined, large fishing boats stranded as far as a quarter of a mile inland by the tidal waves, full sized railway trains scattered around the landscape, and the oil tank farm burning at Valdez.

Since he is one of its most popular speakers and always draws a full house, Leverett Richards needs no introduction to the Society. He last spoke to it about the South Pole in January of 1963-- see Penguins in the Palm Trees in the February 1963 Newsletter. He holds a Lt. Colonel's commission in the Air Force Reserve, both military and commercial transport pilot's licenses, and has the rare distinction of having flown over both the North and South Poles. He has seen action in both World War II and the Korean Action, and is the author of two books. In view of all this, we thank him for finding the time to come to talk to us.

W. M. F.

* * * * *



Official Publication of the Geological Society of the Oregon Country

August 1964

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

Return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1 yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2 yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3 yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR AUGUST 1964

All functions of the Geological Society indicated below will meet on Pacific Daylight Saving Time.

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue (use Taylor Street entrance).
12:00 Noon - In the main cafeteria get whatever you need to keep body and soul together and take it on a short hike through the Foothills Room into the hospitable atmosphere of the Mountain Room where you can forget your problems and relax in the company of GSOCers and their friends while they discuss publications, examine specimens, catch up on the news of the Society, and occasionally hear short talks on geology and related subjects.

Reservations are not necessary to attend the luncheons. For further information telephone the Luncheons Chairman, Leo F. Simon, at 223-0300 (business) or 236-0549 (at home).

August 14
Friday

ANNUAL PICNIC - In the crater of the volcano in Mt. Tabor Park.
6:30 P. M. A pot luck supper and an evening of conviviality for all GSOCers and their guests. Bring a hot main dish, or a salad, or a dessert -- and your own table service. Rolls, butter, and beverages will be furnished by the Society; tables, benches, and cinders by courtesy of the Park Bureau. For further information call Mrs. Fred E. Miller, Picnic Chairman, at 771-6142.

7:30 P. M. - A program in three parts directed by Master of Ceremonies Truman Murphy consisting of: recitations by members of "This Happened to Me", a lecture on geology entitled "Michigan -- Past and Present", by John Mihelcic, and a community sing led by Dr. Paul Howell.

August 18
Tuesday

LIBRARY NIGHT - Not scheduled during the summer months.

August 23
Sunday

FIELD TRIP - A chartered excursion on the Vernonia, South Park and Sunset Steam Railroad from Banks to Vernonia and return.

3:00 P. M. - Assemble to board train at VSP&SSRR terminal at Banks, Oregon, which may be reached by following the Sunset Highway (U. S. 26) to the junction with Oregon 6 (to Tillamook) and proceed on this to the well marked Banks Exit.

The train leaves on a salute from Battery B of the First Oregon Volunteer Artillery promptly at 3:00 P. M. (Bang Bang! Toot Toot!) and proceeds on the S. P. & S. trackage to Vernonia. VSP&SSRR equipment consists of day coaches, an open air observation car, and a baggage car-diner in which light meals are served. More substantial fare is available at Vernonia, or bring your own lunch. Ralph Mason, Field Trip Leader, will give a running commentary on the geology en route. Bring cameras for the spectacular shutter-bug stop at the Beaver Creek trestle. Return from Vernonia and detrain at Banks at 7:30 P. M.

August 28
Friday

LECTURE - None scheduled during August.

ADVANCE CALENDAR FOR SEPTEMBER 1964

Every
Thursday

LUNCHEON - As usual at Y. M. C. A. See August Calendar (above) for details.

Sept. 5-8
Sat. to Tues

PRESIDENT'S ANNUAL CAMPOUT at Rujada Forest Camp east of Cottage Grove. See article in this issue of the Newsletter.

THE ANNUAL PICNIC

For as long as we can remember the Annual Picnic has been held in the cinder cone of the volcano on top of Mt. Tabor, and so hallowed has this tradition become that to even think of holding it anywhere else would be heresy and a sacrilege. We mention this for the benefit of our sizeable new membership, and we take this opportunity to invite them to invite their friends as guests to our Friday evening buffet on August 14th. In fact, we think it would be nice if all our guests on the train excursion to Vernonia on the 23rd would come to the picnic to enhance our acquaintance. This year's Picnic Chairman, Mrs. Fred Miller, and her assistants, Emily Moltzner, Gwen Helm, and Shirley O'Dell are particularly anxious to welcome them . . . Traditionally we have a pleasant, leisurely supper of tempting viands -- the directions are all on the calendar page of this Newsletter -- followed by a not too long program. The program this year will be MC'd by that loquacious toastmaster, Truman Murphy, who is also our Field Trip Chairman. Knowing Truman as we do, this just can't help but be good. Among other things, our featured speaker will be John F. Mihelcic, a new member himself, and one with an impressive pedigree. We really ought to introduce him, and what better time than now? Do come to the picnic, and bring some friends --

WE ARE HAPPY TO INTRODUCE -

MR. and MRS. JOHN MIHELICIC of Detroit, Michigan -- until they came out here to retire five years ago. John was born in Calumet, Michigan, in the middle of the copper mining industry, and whether or not he was anodized, he has led a copper-colored life ever since. Primarily John is a teacher of mineralogy, with a master's degree from Wayne University in Detroit, and he has taught that subject in high schools, the Detroit Mineralogical Society, and at Wayne. He has been a member of the Michigan Geological Society for twenty-one years, for five of which he was President. He is also a past-president of the Mid-Western Federation of Mineral and Geological Societies, and has been affiliated with many other mineralogical groups. Since coming to Oregon he has become a member of the Oregon Agate and Mineral Society, and for two years he edited their bulletin. He contributes to all of the earth-science magazines, and currently conducts the column "Through the Microscope" in the Mineralogist. He is the Assistant Editor of the GSOC Newsletter, has been collecting minerals since 1930, and is widely travelled.

We can't tell you much about Mrs. Mihelcic except that she was born in London, Ontario, that her interests closely parallel those of John, that she is highly talented in her own right, that she was for two years the President of the Michigan Geological Society, and that she is a very handsome woman. In December they are going to start on a trip around the world. It is time that we got much better acquainted with the Mihelcics.

* * * * *

MEMBERSHIP ROSTER

NEW MEMBERS

Allison, Isabelle D.,	95 S. W. Henry Drive,	Beaverton, Ore.	644-3794
Boxx, Eleanor M.,	3054 N. E. Flanders Street,	Portland, Ore.	236-7628

REINSTATEMENT

Running, Mr. & Mrs. James,	1951 N. E. 142nd Ave.,	Portland, Ore.,	252-5202
----------------------------	------------------------	-----------------	----------

NEW PUBLICATION

The new, updated edition of GEOLOGY OF OREGON by EWART M. BALDWIN, professor of Geology at the University of Oregon, and of our membership, is now available. We just got ours at Gill's, priced at \$3.25. We will hope to have a report on this in the next Newsletter.

* * * * *

NEWS OF MEMBERS

In looking around for news of members we have begun to notice that a lot of old familiar faces aren't there any more, and we wonder where they could be. They could be on vacation; that's where they could be The ALBERT KENNEYS are somewhere in Montana -- probably free-wheeling around Glacier. Down in Mexico City IRV EWEN is doubtless giving the señoritas a bad time between bull fights, checking the bars, etc. HUGH OWEN is in England, and we don't know where all the other people are.

As everyone knows, our DR. RUTH HOPSON is not one to let the grass grow under her feet, and in late May and early June she attended a select two-week photographic seminar at Yosemite under master photographer ANSEL ADAMS. Besides all this, Ansel so admired one of her pictures of Oregon mist that he asked her for a print of it . . . which is a kind of an honorary degree. Since then she has spent three weeks exploring the Canadian Rockies, and she is currently teaching teachers in conservation work-shop at the Hoo-Doo Ski Bowl.

By this time MRS. ARTHUR C. JONES should be out of the Good Samaritan and convalescing at home. We are deeply grieved that she and the DOCTOR, who for so many years were the heart and soul of the Society, should have had so much suffering to bear these last two years. The Society extends its best wishes and affection to them both.

On Tuesday, July 28th, the patriarch of the Society, ORRIN STANLEY, celebrated his 92nd birthday. We wish him many more, with the best congratulations of the Society!

BOB HART, fresh from Camp Hancock, tells us that under the highly organized direction of Don Barr a new atmosphere extremely conducive to the spirit of learning has developed. He says that four or five students are working the mammal beds, and that studies of fossilized vegetation are in progress to establish the environmental factors of the area. The camp is in short wave radio communication with the outside world, courtesy of T. Y. Kearney; the lapidary and biology shed has a new concrete floor; BERRIE HANCOCK has never worked harder and looked better; and there are both afternoon and moonlight swims in the hot weather. DR. PAUL HOWELL, also just back from the camp, is in general agreement with Bob's observations.

There was nothing surprising about JACK POLLARD bringing a new girl to the Friday evening Library lecture, but when he introduced her to us as MRS. POLLARD -- that was surprising. In fact, it was quite unsettling, since we had always taken it for granted that he was one of an informal little group -- Irv Ewen, Hugh Cwen, and you know who, who are repulsive to women, and it was rather jarring to find out that he isn't -- not that we blame him in the least. Although he met her last summer in Alaska up on the Yukon, the lady is no Eskimo, but a stunning, statuesque redhead -- well, auburn -- and

WE ARE DELIGHTED TO WELCOME -

MRS. JACK POLLARD, nee Jablonski, whose membership we have acquired by matrimony. Her first name is Genevieve, and she comes from Phoenix, Arizona, where she was a medical technician in Good Samaritan Hospital. She is gracious enough to approve of our cool summer, which is something! and she likes our sylvan setting, all of which are much different from Phoenix, where we used to live, too. While Jack knows more about her than we do, we hope to get better acquainted soon, and in the meantime the Society congratulates them both and thanks Jack for his industry in membership.

W. M. F.

* * * * *

NOTE

We were so pushed for time that we could not give you an adequate review of Dr. Paul Howell's lecture at the Library on the evening of Friday, July 26th, titled, "The Genesis and Engineering Aspects of the Portland Hills Silts", but we will try to have it for you in the next issue.

Editor

* * * * *

WEST PAKISTAN

At the regular Friday evening July 10th Library meeting Hal Kelly, Ceramist with the United States Bureau of Mines at Albany, told the Society about West Pakistan. His talk, well illustrated with good colored slides, generally touched on the people and their problems; their customs, politics, economics, resources, industry, education, religions, and their uncertain future; and on the geology and geography of the area.

It was the story of a poor but not unhappy, tradition-ridden people living in a poor and ancient land. The country is skillfully described by James Michener in "Caravans", for although Michener was writing about arid Afghanistan, arid Pakistan is much about the same kind of country. Leading precarious, poverty-stricken lives, these gentle people have little to look forward to in things material, but an unquenchable spirit buoys them up to make life livable.

Mr. Kelly showed us slides of the salt mines in which the miners inherit their jobs -- and the problems that come with them -- and he also developed the frustrating problem they have in irrigation. For while well over twenty million acres of land are irrigated, soluble salts from the numerous deposits in Pakistan have salted these areas and the problem now is to get them leached. He told us that the British are working on a project to drill thirty-one thousand deep wells from which to pump clear water to desalt this land.

Presently two large multiple purpose dams -- irrigation, power, and flood-control -- are being built; the Tarkella Dam on the upper Indus River, and the Mangla Dam on the Jhelum. When these dams come into operation they should to some extent, at least, help to relieve the economic plight of the West Pakistani people.

Mr. Kelly showed us scenes of the University of Punjab at Lahore -- lovely brick buildings built in the Eastern style by the British. Close by was a beautiful native building of antiquity faced with splendid ceramics, the art of making which has long been lost.

An earnest and delightful speaker, Mr. Kelly, in sharing his recent trip to Pakistan gave us a most rewarding evening.

W. M. F.

* * * * *

LOLO PASS ATTRACTS VOYAGERS

The July 26th field trip brought out a caravan of fifteen cars of enthusiasts to view the country traversed by the little-used Lolo Pass road. This is a country of towering Cascades, of successive lava flows and earth slides, of virgin forests and of magnificent scenery. GSOCers who were here four years ago remembered it for clouds of dust; today they found the road oiled mostly to the summit and the dust confined to the gravels of the north slope.

Forming at Brightwood under the tutelage of Dr. Paul Howell the tour first visited a quarry on the Salmon River. Here successive flows of Columbia River Basalt, of Miocene age, some inter-bedded with soil horizons, were topped by valley fill.

The second stop was at the road cut on Laurel Hill where there were exposed two fine dikes of Columbia River basalt that welled up through fissures in the diorite making an outstanding display for travelers who cruise the Mt. Hood road. A convenient parking area adds to the access. The diorite and contemporary rocks are believed to be of Oligocene age. Across on the south wall of the canyon thick layers of Columbia River basalt were topped by 100 feet or more of Cascade Andesite. These and other dikes may have been the source of some of the great flows of Columbia River basalt that covered much of the Northwest during the Miocene of twelve to twenty-five million years ago.

Returning to Truman Road which is the access to Lolo Pass the party began the ascent of Clear Fork, a tributary of the Sandy River. The forest road was cut largely in tuffs and lavas of Oligocene age. Noted in these rocks were evidences of green chlorite of secondary mineralization, a phenomenon not occurring in rocks of younger age. Rhododendrons were still in bloom near the top of the 3400 foot pass but the squaw grass so abundant on the scouting trip had passed its blooming period.

The pass itself offered the ultimate in photographic opportunity. On the north slope of Mt. Hood, Reid, Sandy, Glisman and Ladd glaciers were easily described and some mud flows noted. The various streams from these ice masses become the tributaries of the Sandy River and the creeks that make up the West Fork of Hood River. Mt. Adams' 12,307 feet of splendor dominated the northern horizon.

The ceremony of luncheon was observed in a little meadow at the confluence of McGee and Ladd Creeks. Hardy souls here sat with their feet in the cooling waters while the sun broiled their scalps. The timid sought the shade of nearby firs and alders.

It was apparent that new forest roads are being cut into the area on both sides of the pass to facilitate harvesting the forest crop. These also serve recreation and fire control purposes. The Lost Lake road is in the process of all-weather treatment. Logged-off patches of forest contrasted with the standing timber which was furnishing cones for reseeding the harvested areas.

At the first crossing of the West Fork there appeared a notable exposure of intra-canyon lavas which here buried the thick sequence of Columbia River basalt. With the Cascade andesite capping the crests there was here represented three wide-spread periods of lava outcrops. Another fine exposure of the intra-canyon was observed a few miles down the river.

On fine paved roads the party descended to Dee where is located the large Hines lumber mill and then turned aside for the spectacular falls and punch bowl of the West Fork of Hood River. Through Hood River's famous orchards they drove to the town itself and across the mouth of the river to view a splendid exposure of the Hood River Conglomerates where Dr. Howell introduced newcomers to the Society to this notable phenomenon which is the equivalent of the Troutdale formation. This closed the guided part of the trip, the members voicing their appreciation to trip leader, Dr. Howell.

C. T. L. Murphy

THE PRESIDENT'S ANNUAL CAMPOUT

The President's Annual Campout, instituted last year by Al Kenney, will be held over the Labor Day week-end on September 5th, 6th, 7th and 8th at the Rujada Forest Camp twenty-one miles east of Cottage Grove. President Irv Ewen will be the Trip Leader, and Dr. Francis Gilchrist will be the Scientific Adviser. One of the prime features of the Campout will be the proximity of the fabulous Rujada fossil leaf deposit within walking distance of the camp. So well known and prized by geologists the world over are these leaf beds that students have come from such far distant places as India to write the theses for their doctorates here. The catch is that these fossils, bedded in a soft, clayey shale in a roadside exposure, are frustratingly difficult to recover intact because of the vertical jointing of the formation. Never-the-less, they present a challenge that few can resist.

A second prime attraction will be a trip to the Bohemia Mountain mining area, where the Society will be the guests of Harold Barton, hospitable geologist and mining engineer. Here, among the ghosts of bearded, leather-booted miners of a bygone day, such well-known old mines as the Vesuvius, the Champion, the Musick, and the Bohemia, producing gold, silver, copper, lead, etc., will be inspected, explained and discussed.

A third allurement -- particularly for the biologists -- will be a trip led by Dr. Gilchrist to one of the high wild marshes on the crest of the Cascades to inspect the rare botanical and biological specimens there as well as the geology of the area.

All this sounds as if we are going to hit the jackpot, so we had better next tell you how to get there. At Cottage Grove -- about 125 miles south of Portland on Interstate No. 5 -- turn left (east) toward the Cascades on the paved road that goes up the Row River, past Dorena Reservoir, to the little town of Diston, which is shown on road maps. This will be the last shopping place for groceries. Continue to Layng Creek Guard Station. The Rujada Forest Camp is on the right across the creek. Actually, the entrance is just before reaching the guard station. Watch for signposts pointing to Dorena, Diston, Layng Creek Guard Station, or Rujada Campground. This is a fine, modern, forest camp with piped water, cooking facilities, tables, toilets, sun and shade, reached by a paved road.

Campers should bring regular camping equipment for a three night camp, rain gear -- just in case, cameras and film, plus ukuleles, guitars and mouthorgans for the evening campfire. Just a song at twilight, as it were --

C. T. L. Murphy

* * * * *

THE GEOLOGICAL TRIP LOG

We are proud of our Geological Trip Log for the August 23rd field trip on the Vernonia, South Park & Sunset Steam Railroad from Banks to Vernonia and return that is included in this issue. BOB ANDERSON designed the cover and layout, RALPH MASON, the Trip Leader, authored the text and developed the geologic diagrams, and the strip maps were made by IRV EWEN, while the photos and railroad signs were supplied from FRED MILLER'S collection.

The fossils in this area, shown on pages 4 and 5, are reproduced from the May 1957 ORE BIN, which is now out of print. The structure section was taken from U. S. G. S. MAP OM42. Also included is a geologic time chart, a stratigraphic column, and a page of railroad signs and signals. Copies of the Trip Log will be available on the VSP&SSRR train and at other locations.

Some tickets are still available, but must now be ordered from the railroad on the enclosed order blank. Ladies who wish to enjoy the benefits of the open air-conditioned observation car should consider bringing scarfs for their coiffures, and if we are actually in the throes of an impending ice age, as some authorities insist, they might also be well advised to wear their snuggies. -- We will see you on the train --

* * * * *

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ANNUAL MEMBERSHIP ROSTER

Compiled by the Secretary

August 1964

NAME	ADDRESS	CITY AND STATE	PHONE
Abramovic, Mr. & Mrs. Emil	3212 S. E. Risley Avenue	Milwaukie 22, Oregon	654-0938
Ackerman, Mr. & Mrs. Arthur P.	2229 S. E. Market St.	Portland 14, Oregon	235-5319
#Adams, Mrs. W. Claude	2614 N. E. Bryce St.	Portland 12, Oregon	281-8747
Albertson, Mr. Maurice M.	2118 S. W. Primrose St	Portland 19, Oregon	244-7668
"Allen, Dr. & Mrs. John Eliot	P. O. Box 751	Portland 7, Oregon	236-1558
Anderson, Mrs. Marie Z.	3106 Oak St.	Milwaukie 22, Oregon	654-5666
Anderson, Mr. Robert Boyd	303 Wilcox Bldg.	Portland 4, Oregon	222-7095
Appelgren, Mr. & Mrs. Wilson	R. F. D. #3 - Box 166	Hood River, Oregon	386-3224
Awbrey, Mr. Curtis D.	1828 Berkeley Way	Berkeley 3, California	638-8525
Baker, Mrs. Lois Inman	541 West 16th Street	Eugene, Oregon	345-5870
Baker, Mrs. Thora Martin	1717 S. W. Park Avenue (Iona Plaza, Apt. 104)	Portland 1, Oregon	228-7861
Baldwin, Dr. & Mrs. Ewart M.	2058 Harris Street	Eugene, Oregon	345-9755
Barr, Mr. & Mrs. Donald D.	12438 S. W. Orchard Hill Rd.	Lake Oswego, Oregon	246-2785
Bartholomay, Miss Clara L.	1620 N. E. 24th Ave. (Apt 306)	Portland 12, Oregon	284-6986
Becker, Mr. & Mrs. Henry G.	7612 S. E. 32nd Avenue	Portland 2, Oregon	771-2988
Becker, Mr. & Mrs. Ralph A.	1306 - 42nd Street	Milwaukie 22, Oregon	654-6439
Berg, Mr. & Mrs. Oscar K.	8721 S. W. 42nd Avenue	Portland 1, Oregon	244-3782
Beynon, Mrs. Katherine F.	1230 S. E. Morrison (Apt 310)	Portland 14, Oregon	235-1134
Biggerstaff, Mr. John S.	2512 N. E. 21st Avenue	Portland 12, Oregon	287-3321
Birford, Mr. & Mrs. Thomas P.	6915 N. E. Sacramento Street	Portland 13, Oregon	282-0427
Bishop, Mrs. Shirley	4810 S. E. 35th Avenue	Portland 2, Oregon	775-2165
Bixby, Mr. & Mrs. DeForest	6424 S. E. Monroe	Milwaukie 22, Oregon	654-1586
Blakeslee, Mr. Ernest L.	4810 S. E. 35th Avenue	Portland 2, Oregon	775-2165
Blore, Mr. & Mrs. Stephen W.	5520 S. W. Downs View Court	Portland 1, Oregon	292-4577
Bonebrake, Mr. & Mrs. John H.	4109 N. Winchell	Portland, Oregon	289-8595
Boxx, Miss Eleanor M.	3054 N. E. Flanders	Portland, Oregon	236-7628
Boyd, Mr. & Mrs. C. A.	434 Riverside Boulevard	Bend, Oregon	382-4469
Brogan, Mr. & Mrs. Phil F.	1426 Harmon Boulevard	Bend, Oregon	382-0560
"Brown, Mr. & Mrs. Franklin M.	411-2nd Avenue North	Edmonds, Washington	778-3610
Bruckert, Mr. & Mrs. Walter E.	Box 292	Wasco, Oregon	442-5211
Bryan, Mrs. Gladys L.		Crater Lake, Oregon	
Buckner, Mr. & Mrs. James S.	Rt. 2, Box 68C	Sherwood, Oregon	638-7935
Butler, Mrs. J. Dean	4404 S. E. Hill Road	Milwaukie 22, Oregon	654-2854
Campbell, Mr. Donald R.	2505 North Emerson Street	Portland 11, Oregon	289-5721
Carmody, Mr. & Mrs. Dennis M.	6234 S. E. Carlton Street	Portland 6, Oregon	771-4904
Chriss, Mr. Dennis L.	625 N. E. Morgan	Portland 11, Oregon	285-9408
"Clark, Mrs. William F.	3613 S. E. 9th Avenue	Portland 2, Oregon	234-7090
Cooper, Mr. Norman A.	710 "B" Avenue	Lake Oswego, Oregon	636-2450
Cox, Miss Beryl C.	1048 S. E. 112th Avenue	Portland 16, Oregon	253-4845
Crowe, Mrs. Ava B.	528 - 2nd Street	Lake Oswego, Oregon	636-1788
Dahlin, Mr. George R.	Rt. 1, Box 150	Orchards, Washington	892-3427
Denvenport, Miss Mary	8308 North Interstate	Portland 17, Oregon	285-9001
"Davis, Mrs. Franklin L.	7114 S. W. Corbett Avenue	Portland 19, Oregon	244-8975
Davis, Mr. & Mrs. Leslie C.	7704 S. E. Taylor Street	Portland 15, Oregon	253-6725
"Delano, Mr. & Mrs. Leonard H.	1536 S. E. 11th Avenue	Portland 14, Oregon	236-2131
DeWitt, Mrs. Peacha G.		Bates, Oregon	
Deyoe, Mr. Harold L.	9945 N. E.-Sandy Blvd (Apt 72)	Portland 20, Oregon	287-9015

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY - ANNUAL MEMBERSHIP ROSTER - AUGUST 1964

NAME	ADDRESS	CITY AND STATE	PHONE
Dodson, Mr. & Mrs. Guy R.	1400 N. W. Electric Avenue	Beaverton, Oregon	664-1609
Dole, Mr. & Mrs. Hollis M.	2612 N. E. 23rd Avenue	Portland 12, Oregon	284-5994
Dunn, Mr. & Mrs. Paul E.	6124 N. E. Mallory	Portland 11, Oregon	285-5008
Eid, Mr. & Mrs. Cy	5615 N. Willamette Blvd.	Portland, Oregon	289-6662
Elder, Mr. George V.	6922 S. E. Brooklyn	Portland, Oregon	771-5846
Erickson, Mr. & Mrs. Rudolph	249 S. W. Glenmorrie Drive	Lake Oswego, Oregon	636-1873
Errett, Mr. & Mrs. Sanford	2707 N. Halleck Street	Portland 17, Oregon	289-6044
Eudaly, Mr. & Mrs. Donald	5204 N. E. 28th Avenue	Portland 11, Oregon	288-3654
Ewen, Mr. Irving Gilbert	4128 N. E. 76th Avenue	Portland 18, Oregon	281-7098
Fagan, Mr. & Mrs. Mike	8107 S. E. Taylor Court	Portland 15, Oregon	255-5752
Fagan, Mr. & Mrs. Richard W.	2850 S. W. Fern Street	Portland, Oregon	223-6820
Fessenden, Miss Marjorie A.	743 S. W. Maplecrest Court	Portland 19, Oregon	246-2987
Fields, Mrs. Claude	3135 Washington Street	Milwaukie 22, Oregon	654-5582
Fink, Mr. & Mrs. V. Carl	7045 N. Oatman Avenue	Portland 17, Oregon	289-0188
Fisher, Mr. & Mrs. Robert S.	Rt. 1, Box 270	Sherwood, Oregon	638-3373
Fite, Mr. & Mrs. George	3610 N. E. 115th Avenue	Portland 20, Oregon	253-3469
Fowler, Myrtice E.	6116 N. E. Cleveland Avenue	Portland 11, Oregon	285-5143
Freed, Miss Hilda W.	1969 S. W. Park Ave. (Apt 306)	Portland 1, Oregon	223-9715
Freer, Mr. William M.	2405 S. E. Taylor Street	Portland 14, Oregon	232-9601
Fuerst, Mr. & Mrs. Edward	1015 S. E. 26th Avenue	Portland 14, Oregon	232-4281
Fullman, Mr. & Mrs. Harvey C.	7325 S. W. Macadam	Portland 19, Oregon	246-3341
Gavigan, Mr. & Mrs. Lee T.	215 N. Sumner (Apt. 4)	Portland 17, Oregon	288-4870
George, Mr. & Mrs. Carl L.	1924 S. E. 24th Avenue	Portland 14, Oregon	232-6610
Gilchrist, Dr. & Mrs. Francis G.	0644 S. W. Palatine Hill Rd.	Portland 19, Oregon	636-5942
Gilliam, Mrs. Elizabeth A.	1729 N. E. 17th Avenue	Portland 12, Oregon	284-8922
Gillis, Mrs. Doris E.	5109 N. W. St. Helens Road	Portland 10, Oregon	223-0280
Golden, Mr. & Mrs. Ray S.	3223 S. E. 19th Avenue	Portland 2, Oregon	234-3921
Goldsworthy, Mr. & Mrs. Robert	1930 Clise Place West	Seattle 99, Washington	AT3-7935
Gooch, Mrs. Ruth Grey	86 37 S. E. Alder	Portland 16, Oregon	253-6897
Gordon, Mrs. M. Elinor	4710 Sunnyside Road, S. E.	Salem, Oregon	362-1109
Gregory, Dr. & Mrs. Victor	7-D Crescent Road	Greenbelt, Maryland	
Griffith, Mrs. A. Jean	7706 N. Emerald	Portland 17, Oregon	289-8509
Griswold, Mr. & Mrs. D. H.	6656 S. W. Miles Court	Tigard 23, Oregon	246-5004
Grubaugh, Mr. Philip L.	2942 S. E. Brooklyn Street	Portland 2, Oregon	236-5402
Haggerty, Mr. & Mrs. E. W.	12950 S. W. Fielding Road	Lake Oswego, Oregon	636-4020
Hall, Mr. & Mrs. George T.	10300 S. W. Barbur Blvd. (Space #15)	Portland, Oregon	246-1806
Hallgarth, Mr. & Mrs. Donald R.	129 Cedar Lane	Troutdale, Oregon	665-4473
Hamilton, Rose	5412 S. E. Powell Blvd.	Portland 6, Oregon	775-9762
Hammill, Mr. & Mrs. Kenneth C.	1905 N. E. 77th Avenue	Portland 13, Oregon	253-7749
Hammond, Dr. & Mrs. John H.	14815 S. E. Oatfield Road	Milwaukie 22, Oregon	654-5570
Hancock, Mrs. A. W.	2720 S. E. 84th Avenue	Portland 16, Oregon	771-5285
Hanson, Mr. & Mrs. Clarence W.	2304 E. Burnside Avenue	Portland 14, Oregon	232-5911
Hanson, Mrs. Hilbert	15724 S. E. Hanwood Lane	Portland 22, Oregon	654-2657
Harbert, Mr. & Mrs. Melvin	6221 N. E. Fremont	Portland 13, Oregon	284-5714
Harvey, Mrs. Eleanor	3724 S. E. 64th	Portland 13, Oregon	284-1740
Haumann, Mr. & Mrs. George	P. O. Box 4905	Portland, Oregon	
Heiberg, Mr. & Mrs. Harry M.	8105 S. W. Brentwood Street	Portland 25, Oregon	292-2560
Helm, Mrs. Gwen	6225 S. E. Belmont Street	Portland 15, Oregon	236-8324
Henderson, Mr. Dwight J.	838 S. E. Peacock Lane	Portland 14, Oregon	232-0814
Henley, Miss M. Ada	2545 S. W. Terwilliger Blvd. (Apt. 413)	Portland 1, Oregon	228-2871

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY-ANNUAL MEMBERSHIP ROSTER-AUGUST 1964

NAME	ADDRESS	CITY AND STATE	PHONE
Hewitt, Mrs. L. P.	2545 S. W. Terwilliger Blvd. (Apartment 613)	Portland 1, Oregon	226-4911
Hinkle, Mrs. Vera S.	Mobile Homes Manor 16901 S. E. Division	Portland 36, Oregon	254-4930
Hitchcock, Mr. & Mrs. David	255 S. W. California Street	Portland 19, Oregon	244-5626
#Hodge, Dr. Edwin T.	2915 N. W. Luray Terrace	Portland 10, Oregon	223-8345
Hodge, Dr. & Mrs. Wallace C.	3994 N. E. 39th Avenue	Portland 12, Oregon	282-3837
Holland, Mr. & Mrs. Jasper L.	1820 S. W. Wynwood	Portland 25, Oregon	644-7270
Holliday, Mr. & Mrs. Kenneth T.	2506 N. E. Halsey Street	Portland 12, Oregon	281-0570
Hopson, Dr. Ruth E.	4138 S. W. 4th Avenue	Portland 1, Oregon	222-1430
Hoven, Miss Rowena	1007 S. E. 21st Avenue	Portland 14, Oregon	234-9005
"Howell, Dr. & Mrs. Paul W.	9130 S. W. Borders Street	Portland 23, Oregon	244-5728
Hyman, Dr. Selma H.	3262 N. E. Everett Street	Portland 12, Oregon	236-9032
Jaenke, Mr. & Mrs. Henry	2320 S. E. Taylor	Portland 14, Oregon	232-5570
#Jennison, Mr. & Mrs. H. L.	1561 S. E. Linn Street	Portland 2, Oregon	234-2701
Jensen, Mrs. Roberta	8709 S. W. 56th Avenue	Portland 19, Oregon	244-2415
John, Mr. & Mrs. Roy M.	603 S. E. 54th Avenue	Portland 15, Oregon	234-4662
#Johnson, Mr. & Mrs. E. Cleveland	5914 N. E. Fremont Street	Portland 13, Oregon	281-6767
Johnson, Mrs. Wallace	Beerman Creek Farm Hamlet Rte. Box 22	Seaside, Oregon	
Johnston, Mr. & Mrs. Emory E.	2030 N. E. 57th Avenue	Portland 13, Oregon	281-3041
Johnston, Mr. & Mrs. Theodore	Rte. 1, Box 1	Moro, Oregon	562-3586
#Jones, Dr. & Mrs. Arthur C.	3300 S. W. Heather Lane	Portland 1, Oregon	222-3100
Jones, Mr. & Mrs. Irving	17112 S. W. Kelok Road	Lake Oswego, Oregon	636-5416
Jones, Mr. & Mrs. Marion W.	3728 N. E. 114th	Portland, Oregon	253-6766
Kastner, Mr. & Mrs. Albert D.	6309 S. E. Overland	Portland 22, Oregon	228-3276
"Keen, Mr. & Mrs. Albert J.	2715 N. E. 41st Avenue	Portland 15, Oregon	281-0229
Kellmer, Mr. & Mrs. Earl B.	6105 N. E. Rodney Avenue	Portland 11, Oregon	284-1093
"Kenney, Mr. & Mrs. Albert R.	4125 S. E. Gladstone Avenue	Portland 2, Oregon	775-5697
Kern, Mr. & Mrs. Emery R.	152 S. E. Kelly Street	Gresham, Oregon	665-4628
Keyser, Mr. Charles P.	1225 S. W. 6th Avenue c/o University Club	Portland, Oregon	223-6237
Kibler, Mr. & Mrs. G. A.	13245 S. E. Harold	Portland 36, Oregon	771-8495
Kooken, Miss Katherine	7114 S. W. Brier Place	Portland 19, Oregon	244-7125
Larson, Mr. & Mrs. Dennis A.	1923 E. 19th Avenue	Eugene, Oregon	344-7754
Latourette, Dr. Kenneth Scott	409 Prospect Street	New Haven 11, Connecticut	
Laurence, Mr. & Mrs. T. Herbert	1808 S. E. 35th Place	Portland 15, Oregon	232-5294
Leach, Mr. & Mrs. John R.	6704 S. E. 122nd Avenue	Portland 36, Oregon	771-2745
Leng, Mrs. Ellen B.	540 South State Street	Lake Oswego, Oregon	636-4006
Lewis, Mr. & Mrs. George	3723 S. E. Rothe	Portland 22, Oregon	654-4707
"Libbey, Mr. Fay W.	2260 N. W. Everett Street	Portland 10, Oregon	227-2145
Lilly, Mrs. Elwin R.	Box 8353 Grace Station	Asheville, North Carolina	
Lloyd, Mr. & Mrs. L. G.	#01139 S. W. Palatine Hill Rd.	Portland 19, Oregon	636-4493
Long, Mr. & Mrs. Edward J.	600 E. Fairfield Street	Gladstone, Oregon	656-1035
Long, Mr. & Mrs. John K.	1005 E. Jackson	Hillsboro, Oregon	648-1053
Long, Mr. Loren A.	Rt. 2, Box 122	Sherwood, Oregon	639-2596
Lucus, Mr. & Mrs. Fred A.	1950 S. E. Larch	Portland 14, Oregon	236-0359
Lyons, Dr. & Mrs. Richard B.	6852 S. W. Burlingame Ave.	Portland, Oregon	244-9729
McCourtney, Mr. Jack R.	2632 S. E. Ash Street	Portland 14, Oregon	232-2441

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY - ANNUAL MEMBERSHIP ROSTER - AUGUST 1964

NAME	ADDRESS	CITY AND STATE	PHONE
Magennis, Mr. Casper H.	944 S. E. Malden Street	Portland 2, Oregon	285-9085
Marshall, Miss Emily L.	3471 S. W. Patton Road	Portland 1, Oregon	244-2106
Matthews, Mr. & Mrs. Thomas C.	4014 N. E. Flanders	Portland 12, Oregon	236-6759
Merryman, Mr. Frank J.	9318 S. W. 2nd Avenue	Portland 19, Oregon	246-4494
Mihelcic, Mr. & Mrs. John	13029 S. E. Ash Street	Portland, Oregon	252-7572
Miller, Mrs. Emma A.	1638 S. E. 12th Avenue	Portland 14, Oregon	236-1964
Miller, Mr. & Mrs. Fred E.	3122 S. E. 73rd Avenue	Portland 6, Oregon	771-6154
Miller, Mr. & Mrs. Hugh	2165 Summit Drive	Lake Oswego, Oregon	636-2245
Miller, Mr. & Mrs. Murray R.	1018 Promontory Avenue P. O. Box 465	Oregon City, Oregon	
Miller, Dr. & Mrs. Wilmer J.	209 Howard Avenue	Ames, Iowa	
Moffit, Mr. & Mrs. Donald C.	Box 382	Waldport, Oregon	563-4900
Moltzner, Mrs. Emily	7032 S. E. Stark Street	Portland 16, Oregon	254-2362
Morrison, Mr. & Mrs. W. W.	13102 N. E. Morris Court	Portland 30, Oregon	255-4175
Mueller, Mr. Godfrey	7117 S. E. Harold Street	Portland 6, Oregon	774-4724
Murphy, Mr. & Mrs. C. T. L.	2027 N. E. Wasco	Portland 12, Oregon	282-2027
Newcomb, Mr. & Mrs. Ruben C.	01631 S. W. Radcliffe Road	Portland 1, Oregon	636-4062
Nielsen, Mr. Howard E.	1230 S. W. Columbia (Apt. 2)	Portland 1, Oregon	223-6896
Oakes, Mr. Alva	218 N. W. Flanders Street	Portland 9, Oregon	227-5123
Oberson, Mr. & Mrs. Louis E.	3569 N. E. Stanton	Portland 2, Oregon	282-3685
O'Dell, Miss Shirley M.	4710 S. E. Stark Street (Apt 7)	Portland 15, Oregon	234-2318
Oekerman, Mr. & Mrs. William	11618 S. E. Lincoln Court	Portland 16, Oregon	254-3054
Ohmart, Mr. Reynolds W.	1748 "B" Street, N. E.	Salem, Oregon	581-2700
Olsen, Mr. & Mrs. Ejner	2466 N. W. Overton Street	Portland 10, Oregon	222-2992
Orem, Mr. & Mrs. Hollis M.	434 N. E. Mirimar Place	Portland 32, Oregon	234-2650
Ornduff, Dr. William W.	772 S. W. Broadway Drive	Portland 1, Oregon	228-5815
Owen, Mr. Hugh	120 N. W. Trinity Place (Apt. 105)	Portland 9, Oregon	228-6141
Paterson, Mr. & Mrs. William F.	2928 N. E. Broadway	Portland 12, Oregon	281-2928
Patton, Miss Barbara	1230 S. E. Morrison	Portland 14, Oregon	235-9409
Peirce, Mr. & Mrs. Hayward	7236 S. E. Salmon Street	Portland 15, Oregon	253-8046
Pense, Mr. & Mrs. Clair E.	17021 S. E. Division Street	Portland 36, Oregon	254-7101
Perrault, Mr. & Mrs. Mark	9000 N. W. Cornell Road	Portland, Oregon	292-4841
Phillips, Mr. & Mrs. Clarence D.	1485 S. W. Cardinell Drive	Portland 1, Oregon	223-3312
Phillips, Mr. & Mrs. Kenneth N.	4124 S. E. Woodward	Portland 2, Oregon	235-1052
Pollard, Mr. & Mrs. Jack D.	0211 S. W. Ridge Drive	Portland 19, Oregon	244-4767
Poppleton, Miss Grace M.	12640 S. W. Riverside Drive	Portland 19, Oregon	636-4891
Prentiss, Mrs. Ruth Eliot	1923 N. E. Schuyler Street	Portland 12, Oregon	281-0341
Prideaux, Elizabeth	13372 S. W. Fielding Road	Lake Oswego, Oregon	636-7342
Reichen, Mr. & Mrs. Sam	8131 S. E. Crystal Springs Blvd	Portland 6, Oregon	771-8775
Reimers, Mr. Fred	6535 S. E. Clinton Street	Portland 6, Oregon	771-9188
Rentsch, Mr. J. R.	1110 S. W. 11th Avenue St. Francis Hotel	Portland 5, Oregon	223-2161
Roberts, Mr. & Mrs. Walter E.	1055 - 16th Street, N. E.	Salem, Oregon	363-4249
Robosky, Mr. Melvoy	Route 1, Box 452	Tillamook, Oregon	842-4088
Roeder, Miss Rosemary R.	3920 S. W. Condor Avenue	Portland 1, Oregon	223-8316
Rosa, Miss L. Kate	807 S. W. 14th Avenue	Portland 5, Oregon	223-0297
Rose, Mr. & Mrs. Howard E.	2206 N. Willamette Blvd.	Portland 17, Oregon	289-6738
Rosen, Mr. Ernst August	239 N. W. Skyline Boulevard	Portland 10, Oregon	223-0547
Rosenberry, Mr. & Mrs. Cecil L.	1606 N. E. Thompson Street	Portland 12, Oregon	287-3290

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY - ANNUAL MEMBERSHIP ROSTER - AUGUST 19

NAME	ADDRESS	CITY AND STATE	PHONE
Sabin, Dr. & Mrs. Neil A.	12511 S. W. Boones Ferry Rd	Lake Oswego, Oregon	244-4328
Sanford, Mr. Paul L.	2435 S. E. 76th Avenue	Portland 6, Oregon	774-4511
Schirmer, Dr. Elizabeth H.	2424 N. W. Northrup	Portland 10, Oregon	223-2029
"0#Schminky, Mr. & Mrs. H. Bruce	1030 S. E. 54th Avenue	Portland 15, Oregon	236-3903
Schramm, Mr. & Mrs. Kenneth R.	3407 S. E. Vineyard Road	Milwaukie 22, Oregon	654-4278
Schreiber, Mr. J. E.	Rt. 2, Box 275	Oregon City, Oregon	Redland 2898
Schull, Mr. & Mrs. Bert R.	6209 E. Hawthorne	Tucson, Arizona	
Shrader, Mrs. Lea	2221 N. W. Flanders Street	Portland 10, Oregon	223-1452
"0#Simon, Mr. & Mrs. Leo F.	7006 S. E. 21st Avenue	Portland 2, Oregon	236-0549
Sims, Miss Kathryn	131 S. E. 24th Avenue	Portland 14, Oregon	234-5997
Sipple, Mr. & Mrs. Norman W.	Rt. 3, Box 114	Sherwood, Oregon	538-5317
Smith, Miss Almeda	1330 Rainier Road	Woodburn, Oregon	
Smith, Mrs. Ben F.	2802 N. E. Tillamook Street	Portland 12, Oregon	
Soper, Mr. Elmer Gail	P. O. Box 122	Banks, Oregon	Ea 4-2412
"0Stanley, Mr. Orrin E.	2601 S. E. 49th Avenue	Portland 6, Oregon	235-1250
"Stauffer, Dr. & Mrs. James	717 - 8th Street	Lake Oswego, Oregon	636-3825
Steere, Miss Margaret L.	2064 S. E. 72nd Avenue	Portland 16, Oregon	774-6382
Stevens, Miss Eliza	3934 S. E. Boise Street	Portland 2, Oregon	774-0439
"#Stevens, Dr. & Mrs. J. C.	6639 S. E. Yamhill Court	Portland 16, Oregon	253-7349
"Stone, Sr., Mr. & Mrs. Norris B.	3122 S. Glenmorrie Drive	Lake Oswego, Oregon	636-1154
Strasser, Mr. & Mrs. Rheinhard J.	8110 S. E. Sunset Lane	Portland, Oregon	775-0415
Strong, Mr. & Mrs. Emory	2753 N. E. Wiberg Lane	Portland 13, Oregon	228-4605
#Strong, Mrs. F. H.	2755 N. E. 51st Avenue	Portland 13, Oregon	281-8278
Sullivan, Miss Irma	Rt. 1, Box 329	Oregon City, Oregon	656-7165
Taggart, Mr. & Mrs. O. Winston	5255 S. W. Dosch Road	Portland 1, Oregon	244-5540
Talbott, Mr. & Mrs. John J.	4833 E. Burnside Avenue	Portland 15, Oregon	236-2732
Townsend, Mr. Paul Graham	2035 North Saratoga Street	Portland 17, Oregon	289-5490
Travis, Mr. & Mrs. H. F.	2427 N. E. Skidmore	Portland 11, Oregon	281-2274
Triol, Miss Ella	5481 East "A" Street, N. W.	West Linn, Oregon	656-4410
Turner, Mr. & Mrs. Jay E.	5611 S. E. Madison	Portland 15, Oregon	234-8730
#Underwood, Dr. Herbert L.	5226 S. W. Menefee Drive	Portland 1, Oregon	246-3786
0#Vance, Mrs. A. D.	5128 Cedros Avenue	Sherman Oaks, California	
Vitas, Mr. & Mrs. A. Klug	2840 S. W. Champlain Drive	Portland, Oregon	223-7784
#Wade, Mrs. Tracy	3326 N. E. 25th Avenue	Portland 12, Oregon	287-6060
Wagner, Miss Marie K.	1088 S. W. Gaines Street	Portland 1, Oregon	222-3493
Waiste, Jr., Mr. & Mrs. Robert	133 S. E. 27th Avenue	Portland 14, Oregon	235-4320
Walker, Mr. & Mrs. L. Lisle	2241 N. E. 162nd Avenue	Portland 30, Oregon	252-4482
Walters, Mr. & Mrs. Geo. W.	1345 N. E. 59th Avenue	Portland, Oregon	282-4272
Weber, Dr. & Mrs. David E.	8005 S. E. Morrison Street	Portland 15, Oregon	253-7340
White, Mrs. Lillian R.	1830 N. E. 25th Avenue	Portland 12, Oregon	287-7838
White, Miss Mella C.	7114 S. W. Brier Place	Portland 1, Oregon	244-7125
Whitmer, Dr. John H.	Veterans Hospital	American Lake, Washington	
"Wilbur, Mr. Robert F.	2020 S. E. Salmon Street	Portland 14, Oregon	235-7284
Wilcox, Mr. & Mrs. Lloyd A.	16650 Lake Forest Blvd.	Lake Grove, Oregon	636-6594
Wilkinson, Jr., Mr. Leonard	1247 Powell Lane	Prineville, Oregon	97754 Zip Code
Williams, Mr. & Mrs. Philip M.	4858 S. E. Grant Street	Portland 13, Oregon	235-0612
Williamson, Mr. & Mrs. Douglas A.	967 - 12th Avenue West	Eugene, Oregon	343-7186
"Wilson, Mr. & Mrs. Ford E.	865 East 2nd Street	Prineville, Oregon	

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY - ANNUAL MEMBERSHIP ROSTER - AUGUST 1964

NAME	ADDRESS	CITY AND STATE	PHONE
Zimmer, Miss Hazel F.	805 S. E. 60th Avenue	Portland 15, Oregon	236-8314
Zimmer, Miss Ruby M.	805 S. E. 60th Avenue	Portland 15, Oregon	236-8319
Zimmerman, Mr. W. F.	3135 N. E. 41st	Portland, Oregon	287-9226

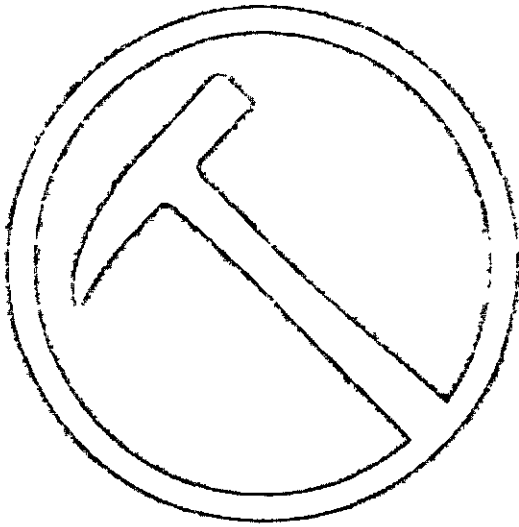
JUNIOR AND STUDENTS

Bruinier, Mr. Terry	2570 S. W. Glen Eagles Place	Lake Oswego, Oregon	636-2539
Dorfman, Miss Diantha	868 S. W. Burlingame Terrace	Portland 1, Oregon	246-5148
Ford, Mr. & Mrs. David W.	Geology Department Cincinnati	Cincinnati, Ohio	
Hart, Mr. Robert	13023 S. E. 21st Avenue	Portland 22, Oregon	654-7865
Jenkins, Mr. Lee	Box 151	Canby, Oregon	266-9545
Netter, Mr. Dennis	Rt. 3, Box 337C	Canby, Oregon	266-7747
Netter, Mr. Ernest	Rt. 3, Box 337C	Canby, Oregon	266-7747
O'Brien, Mr. William O.	18101 S. E. Oatfield Road	Milwaukie, Oregon	656-8027
Palmer, Miss Cydni	12505 S. W. Lesser Road	Portland 19, Oregon	246-1418
Sakai, Mr. Ken W.	600 N. W. 107th Avenue	Portland 10, Oregon	644-7188

0 Honorary Life Fellow

Charter Member

" Fellow



Official Publication of the Geological Society of the Oregon Country

September 1964

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

Return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1 yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2 yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3 yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

1964

CALENDAR FOR SEPTEMBER 1964

Geological Society activities, as indicated below, will meet on Pacific Daylight Saving Time.

Every
Thursday

LUNCHEON - Y. M. C. A., 831 S. W. 6th Avenue, Portland, Oregon

12:00 M. - Varied food items are available by the trayfull or just a trifle in the main cafeteria. Follow the trail past the Foothills Room to the Mountain Room where GSOCers and guests gather to discuss and examine publications and specimens and to listen to occasional short talks on geology and other topics of interest.

Reservations are not required to attend the luncheons. For more information phone the temporary Luncheons Chairman, Mr. H. Bruce Schminky, at 236-3903.

September 5-8 PRESIDENT'S ANNUAL CAMPOUT - Bhoemia Mining District.

Saturday

thru Tuesday For details see article in the August issue of the Geological News Letter (p. 56). Additional information may be obtained by phoning the Field Trips Chairman, Mr. C. T. L. Murphy, at 282-2027.

September 11 LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon
Friday

7:30 P. M. - "The Return of Pozzolans to the Building Industry" is the title of the talk to be given by Mr. Art Heizenrader of the Empire Building Company. This lecture is one of the continuing series being presented by the Society on "Man and His Minerals".

September 15 LIBRARY NIGHT - Lewis and Clark College in southwest Portland, Oregon
Tuesday

7:30 P. M. - Meet at Peebles Hall (Biology Building) on the Campus. Program to be announced. For information or directions phone the Library Night Chairman, Mr. Murray R. Miller, at 656-6724.

September 25 LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon
Friday

7:30 P. M. - "Minerals from Many Lands" is the title of the illustrated talk to be given by Mr. John Mihelcic, teacher and mineralogist. Mr. Mihelcic's lecture is also one of the series on "Man and His Minerals" being presented by the Society.

ADVANCE CALENDAR FOR OCTOBER 1964

Every
Thursday

LUNCHEON - As usual at the Y. M. C. A. For information see Calendar for September (above).

October 4
Sunday

SPECIAL - O. M. S. I. charter boat excursion up the Columbia River. Advance reservation required. Members of the Geological Society are invited to participate in this CMSI-sponsored activity. For details see article in the September (1964) issue of the Geological News Letter. For reservations or more information phone OMSI at 226-4518.

October 9
Friday

LECTURE - "This Land is Yours" is the title of the program sponsored by the Oregon Chapter of the Nature Conservancy. Arrangements for the presentation of this program have been made by Dr. James Stauffer and Dr. John Hammond.

October 11
Sunday

FIELD TRIP - Private car caravan up the Wind River, across the high country, and down the Lewis River. The caravan will assemble at the old historic Crown Willamette Inn in Camas Washington. The trip will be led by Dr. Paul W. Howell and Mr. Albert B. Kenney, both of whom are past presidents of the Society.

DORIS WOLCOTT JONES

August 11, 1964, was a special day of remembering at the First Unitarian Church Memorial Service for the large assemblage of Oregonians whose lives have been touched by Doris Wolcott Jones. It also brought the reminder that to those who give a lifetime of selfless service to others rewards come in seeing those that are helped blossom in health and well-being. There is a personal debt that all who were helped by Doris recognize, and each in his or her own way will find a way to repay in extended service to another who is in need of the human touch.

To those of us in the Geological Society and the OMSI family who felt the impact of her spirit and who were aided by her encouragement and seemingly tireless efforts, her legacy is ever enriching. Our Portland community pays her high tribute for the personal help she gave in assisting to establish and develop the Oregon Museum of Science and Industry and the Rehabilitation Institute of Oregon.

On the last Friday before entering the hospital, Doris asked a friend if there were a geological meeting scheduled for that night. On second thought she responded, "I guess I'll stay home tonight and live it up with my family." This home that was her "Hill Haven" to her cherished family was haven, too, to countless friends to live up long remembered experiences. One always felt at home in Doris' home, for its manner was epitomized above the entrance archway:

"Whoe'er thou art that entereth here
Forget the struggling world
And every trembling fear.

Take from thy heart each evil thought
And all that selfishness
Within thy life has wrought.

For once inside this place thou'lt find
No barter, servant's fear,
Nor master's voice unkind.

Here all are kin of God above --
Thou, too, and here
The rule of life is love." -- Max Ehrmann

Somehow in our gratitude for the life of Doris Jones, we cannot think of her other than by the name her Arthur always used: Sweetheart. Because she was sweet of heart, she was endearing to not only all who knew her but most beloved by her close family. As Madam Pandit said to her at a United Nations meeting, "I want to return to India to be near my grandchildren, for this is one of the sweetest experiences of life." - so Doris blessed the lives of her own grandchildren: Randy and Margaret; Bruce, Judith, and Carolyn. The richness and closeness of the family lives of her own two children, Irving and Ardis, attest the inspiration, encouragement, and devotion of their parents, Arthur and Doris. As a spiritually sensitive daughter of 16, Ardis wrote:

Nothing beautiful is ever lost
Nothing true is ever cast aside
Fairest flowers bitten by the frost
The humblest person -- never really died.

Remembered or forgotten, they still live
Their spirits breathe in beauty-seeking hearts
Great is the silent heritage they give
Strong, the truth their presence still imparts.

With The Reverend Roger Walke, we claim the treasure of her friendship:

"Let us return thanks for every gift of life which brings us joy, peace, and strength of heart. Let us return thanks for every man and woman whose life speaks to us words of hope and affirmation. We return thanks especially for her in whose memory we gather here today, Doris Wolcott Jones, loving wife, mother, and friend and befriender of literally thousands through her encompassing love, and her respect for the best in human beings."

Viola L. Oberson

ZEOLITES AND THE MICROMOUNTER

By John Mihelcic

The micro-mineral collector has solved the problem of space for storage while gaining in the perfection of crystallization. In addition, collecting areas in Oregon had multiplied many times over, for now, every rock exposure becomes a potential source of these minute mineral specimens. Zeolites are quite prolific, for as secondary minerals, they have infiltrated our widespread lava flows.

Zeolites are members of a family of minerals that are closely related in their composition, and have the faculty of exchanging calcium for sodium, and vice-versa. This is the reason why our early water softeners used natural zeolites to extract the calcium from lime-bearing or hard water -- and then, salt was used to restore the original sodium, by replacing the calcium, thus completing the cycle of exchange. At the present time, artificial zeolites are used to do the same operation. In addition, considerable research has been promoted to find other filtering uses for zeolites, with promising prospects. During our last trip to Nova Scotia, a concern from Philadelphia had a representative in the field, to purchase all the chabazite that the local collectors could gather, regardless of the specimen quality. The variety of the orange chabazite from that area is known as acadialite, a reference to the original name, Acadia, (the Evangeline country) for Nova Scotia.

The more readily collected zeolites, in Oregon, are stilbite, heulandite, thomsonite, mesolite, chabazite natrolite and analcite. Those of the acicular type of crystallization are very difficult for the non-professional to tell apart. Most of the zeolites from Oregon are pure white or water clear. It is not unusual to find clear crystals impaled upon the tufts of "spears" of acicular mesolite and thomsonite. However, dainty pink specimens, are found at times along Rock Creek, just across the river.

Possibly, the outstanding collector of zeolites, in the amateur group, in Oregon, is John Cowles of Rainier, Oregon. To him, I am indebted for the knowledge of various collecting area in this section. Al McGuinness of Eugene, Oregon, knows that region better than any else, and he has remarkable cabinet specimens from Drain and Springfield -- and is now rapidly expanding his collection of micro-minerals. Up to the present time, we have not collected in the quarries in that vicinity, so our micro-minerals of zeolites and others, have been acquired from him.

Goble has been the source of some dramatic cabinet specimens, that were collected during the days of the early road work there. They still appear occasionally, but the micro-sizes are the best bet. The road cut, up the hill from the bridge, and even the loose builders below, are likely sources. Cowles located a potentially new mineral there recently.

All quarries and broken stones along route 395 from Mt. Vernon to Pendleton, and westward to Ritter Hot Springs, furnish good micro-minerals, and, on occasion, cabinet sized pieces. Levynite showed up among the zeolites at Beech Creek quarry.

Just to illustrate that the size of the quarry bears little relationship to the quality of the minerals, a minor excavation along the road to Lookout Point past Tillamook, furnished us with the only individual micro-crystals of phillipsite that we ever found. Besides, it yielded tiny thomsonite and mesolite tufts, decorated with suspended heulandite crystals.

The sheaflike aggregate of stilbite crystals is sufficient to identify the mineral in the field. Heulandite, does not form in this pattern, and is characterized by its "coffin shape", and that it is generally thicker than stilbite. The square section of the natrolite crystal, with its four sided pyramid as its termination, suffices as a good field check. The rhombohedral form of chabazite makes it the easiest of the group to recognize, even when it appears as a pseudo-cube. Analcite is also very easy to identify when found, for it looks like the trapazohedron of a garnet, and even more so, like the colorless leucite. Oregon analcite, in all instances that I have seen it, is white, in contrast to the reddish brown of the Copper Falls, Michigan specimens, or the limpid clear crystals that come from other mines there. The identification of the acicular crystals is dependent upon the petrographic microscope. Anyone, who would like to enjoy a bit of blowpipe analysis, could have some fun with zeolites, for they fuse with enthusiasm.

Zeolites and the Micromounter - cont'd.

The gem cutter will find zeolite material to polish, particularly, the dense concentration of the acicular crystals of mesolite and thomsonite. We had gathered a goodly quantity of compacted mesolite on Mt. Pisgah (south of Eugene) in 1940, and found that the polished surface of the radiating pattern resulted in a silky sheen that was truly attractive. The same held true for the white Oregon thomsonite, tho it isn't comparable to the "glamour" colored thomsonite from Grand Marais, Minnesota or from the Keweenaw area of Michigan. While we have not run across the compacted form of stilbite in Oregon, we have polished hand sized and larger masses from the cliffs of the Bay of Fundy, in Nova Scotia. These had a fugitive light ray playing across the surface.

Whatever be your trend of interest, the zeolites offer you a field that is wide in scope for they come in seemingly endless varieties.

NOTE -

We are indeed fortunate to have this talented writer as the Assistant Editor of the NEWSLETTER. Both Mr. and Mrs. Mihelcic have life and honorary memberships in many Michigan geological and mineralogical societies, for whom they write occasional articles, and John, essentially a mineralogist, makes frequent contributions to the scientific journals and magazines. Besides this he is an accomplished calligrapher, and with his articles he sends us delightful little explanatory notes in beautifully shaded Spencerian script. In case you haven't spotted him yet, he gave the talk at the Annual Picnic; will have the September 25th Friday evening Library lecture on "Minerals From Many Lands."

Editor

SAVE YOUR MONEY!

The new edition of Dr. EWART M. BALDWIN'S "Geology of Oregon" reported in the August NEWSLETTER to be on sale for \$3.25 may be had at the Portland State College Bookstore for \$2.50. We haven't had time to review this new edition yet, as we promised you we would in the last issue, but we will as soon as possible.

Editor

MODERN DAY DILEMMA

A young lady whose name we must hold in confidence but whose initials are ELIZABETH GILLIAM posed an intriguing question the other day when she confided to us that she had just been vaccinated for smallpox. In our day -- so we understood -- ladies were vaccinated thus high above the knee so that the scar would not mar her beauty. The question that keeps us from sleeping at night is: In this modern day of abbreviated costumes, where could they vaccinate a girl so it wouldn't show?

BUSY OUTFIT

We can well imagine how things must be popping in the Department of Geology and Mineral Industries these days, what with the off-shore oil leases being negotiated, the National Convention of the American Mining Congress here in Portland this month, and all the lunar exploration tests going on in Central Oregon.

THE SUNSET ROUTE

The Society's highly advertised August field trip on the 23rd -- from Banks to Vernonia and return, via the Sunset Line -- was an unqualified success, and only one small incident at the VSP&SS terminal in Banks at the outset of the trip caused a thirty minute delay in the scheduled departure when the cars were being switched in the Company's hump yard there. When the cars were half way across the switch someone in the observation car blew the air whistle which automatically set the air brakes, and the locomotive, on the next track, had to horse them back out of the way with a chain.

As advertised, a field piece from Battery A, First Oregon Volunteer Artillery, Major Rudy Marek commanding, fired a salute at departure time, and then the gun crew climbed aboard the train -- either to protect the Society from the dangers of the wild country to be traversed, or to protect the wild country from the Society -- we weren't sure which. This is an interesting development in which Major Marek has faithfully fabricated eight Civil War field pieces and manned them with gun crews all dressed in authentic Union Army uniforms, the components of Batteries A and B of the reactivated First Oregon Volunteer Artillery. Early next year the Major intends to take two of these horse-drawn cannon back to the New York World's Fair, and we hope that he does, for it will be a unique and picturesque advertisement for Oregon.

By this time Ralph Mason, the trip leader, was encountering frustrating difficulties with the public address system as he made the chilling discovery that while he could hear what everybody on the train was saying, no one could hear him. We heard him talking to himself, and quite frankly, it didn't sound like the commentary we think he had intended to give the passengers. However, we had that wonderful trip log that Emily and Elizabeth were busy selling, and who could ask for more?

After the shutter-bug stop at the Beaver Creek trestle -- where everyone gets off and the train backs up and then comes back across the trestle again trailing a plume of black smoke for the benefit of the photographers -- we stopped at the Haydite Quarry, and in this Keasey shale exposure we quickly found excellent marine fossils. Gwen Helm's son-in-law, Richard Winn, and Bob Hart both recovered perfect specimens of molopophorus, and Bob Wilbur a crab shell. Fine examples of polinices and dentalium were also found. Though we would have liked to linger, the sun was hot and Vernonia beckoned. Soon we were there.

One of the charming aspects of the trip was the spirit in which the horses grazing in pastures along the track got into the act. Terrified by the train, just as if it hadn't been running all summer, they snorted and cavorted around, though it was too warm for too much exertion. Still, they did their best. We noticed one absent-minded one that ran towards the train instead of away from it, and another one who couldn't resist looking back over his shoulder to see if we were watching. We have always been fond of them -- perhaps because some of our best friends have been horses.

The locomotive switched to the rear end of the train for the trip home, and backed all the way back to Banks, which put the passengers in the observation car within patting distance of the boiler, though sometimes smoke got in their eyes. And thus another memorable -- and unique -- field trip ended when we rolled into the Company's terminal at Banks on schedule.

William M. Freer

EXCURSION BY STEAM TRAIN

August 23, 1964

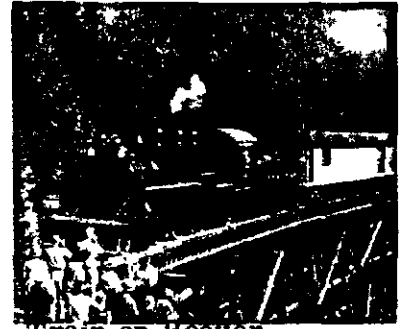
Photos by
Fred E. Miller



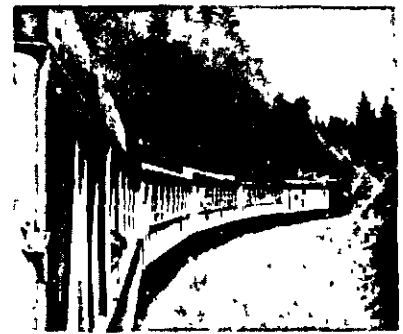
**Aerial view of
Haydite Quarry**



**Trip Leader
Ralph Mason**



**Train on Beaver
Creek Trestle**



**Train enroute
to Vernonia**



**So many things to
to choose from**

**ANNUAL
PICNIC
August 14, 1964**

photos by
Fred E. Miller



Eat as you go plan



Comfortable at last



Decisions, Decisions!



**That's one way
to find out!**

THAT GSOC PICNIC WAS WONDERFUL!

All of the essential ingredients for a successful picnic were present during the Friday evening of August 14 as GSOCers gathered on Mount Tabor in the shadow of a pip-squeak cinder cone. Ideal weather combined with an abundance of tasty food and an entertaining program provided another memorable evening for all present.

Mrs. Fred E. Miller (Lillian), general chairman for this annual event, reports that she was ably assisted by many volunteers. A few of the helping hands mentioned were: Rose Hamilton for her general advice and ideas; Leo and Johanna Simon for procuring and placing the paper "tablecloths"; Marjorie Fessenden, Shirley O'Dell, and Gwen Helm for the food layout; and Bob Wilbur for cleanup.

It is said that even the best laid plans occasionally go awry. Vociferous Truman Murphy, Master of Ceremonies for the post-feeding festivities, was at a loss for words when he discovered the absence of the piano that is usually enclosed in a protective case on the stage. However, he and Paul Howell improvised very nicely by teaming guitars and voices to provide music for a jolly sing-along. New song sheets, purchased from the special publications fund, were inaugurated on this occasion. Also included in the musical menu was a special arrangement of a spiritual by Paul Howell's group and the audience.

Another part of the program included several accounts of true-life adventures as told by the GSOCers who experienced them. Some of the tall tales related to us were by: Paul Howell who was "up a tree", Emily Moltzner on a beginner's luck at fossil finding, Rowena Hoven on Indians and their artifacts, and Al Kenney on flying in the dark.

John Mihelcic concluded the program with a talk on the geology of Michigan. Everyone was listening attentively when ECHO interrupted the speaker by appearing in the dark and cloudless sky.

GSOC MEMBERS TO TEACH GEOLOGY

Three GSOC members, Dr. Ruth Hopson, Dr. Paul Howell and Ralph S. Mason will be teaching evening geology courses at the Portland Continuation Center this Fall. Ruth Hopson will be teaching Geology Laboratory, Paul Howell is getting primed for a course in Historical Geology, and Ralph Mason will be offering Introduction to Geology. The courses by Hopson and Howell are regular college credit offerings, while that by Mason is a non credit course designed for adults interested in geology but not in a full-fee college credit class. Details on the classes may be obtained by calling CA 6-6601, Ext. 1101. In addition to the regular class meetings students may also participate in the field trips. The Fall term trip will be up the Columbia River Gorge.

OMSI TO REPEAT POPULAR GORGE BOAT TRIP

OMSI has again chartered the Grayline "Columbia Sightseer" for a geologist-guided tour from Portland up the river, through the Bonneville Locks, to the Bridge of the Gods and return. This was a sell out attraction last year when a second section had to be run to handle the crowd. The first trip this year was filled two days after it was announced, the second which will leave Jantzen Beach Marina at 9:00 a. m. Sunday, October 4th, still has some space left.

OMSI has obtained special rates as follows:

Adult OMSI members	\$5.00
Non-members	\$5.50
Children 12 and under	\$2.50

Call OMSI CA 6-4518 for reservations. Advance payment is required.

NEWS OF MEMBERS

By Rowena Hoven

The weekend of August 22, LEO SIMON was the leader for a trip by the Portland Men's Garden Club to Bird Creek Meadows (to observe you know what). Then on August 24, Leo and Johanna started a trip to Boulder where they will visit their daughter and her family and will attend the meeting of the American Institute of Biological Sciences at the University of Colorado. One session they will certainly attend is the one at which their son-in-law will give a paper. In Denver they always visit the Natural Science Museum. Leo mentioned especially the wonderful display of gold, but hastened to explain it is well protected so he will not be able to bring specimens to pass around at the Thursday luncheon meeting. Eventually the trip will take them to Butte for the meeting of the Northwest Federation of Mineralogy Societies. Then, if the weather and time permit, they hope to travel through Glacier National Park, returning in from three to five weeks.

GWEN HELM has returned from an extended motor trip to southern California, Arizona, Utah and Idaho (Hells Canyon area). She reports Oxbow and Brownlee dams are in good shape.

Everything seems to be going into orbit these days, particularly rocks and eggs. IRV EWEN and JACK McCOURTNEY have just returned from a trip to Mexico where they were the recipients of rocks hurled by the natives as they drove in the mountain area on the Pan American Highway approximately 100 miles from Mexico City. Irv thought it was their quaint way of displaying unhappiness because Irv and Jack did not stop to take their pictures and then dispense the appropriate rewards. As for the eggs, JESS RENTSCH received one in his car as he sat in Laurelhurst Park -- no explanation, but it takes a lot of cleaning to remove an egg that literally explodes in your car.

MAURICE ALBERTSON has been enjoying a visit from his sister who lives in California and his son from the East.

VERA HINKLE brought a guest to the August 20 luncheon, MR. CLIFFORD FISH of Gresham. We hope he will come again -- in fact, he had all the earmarks of a prospective member.

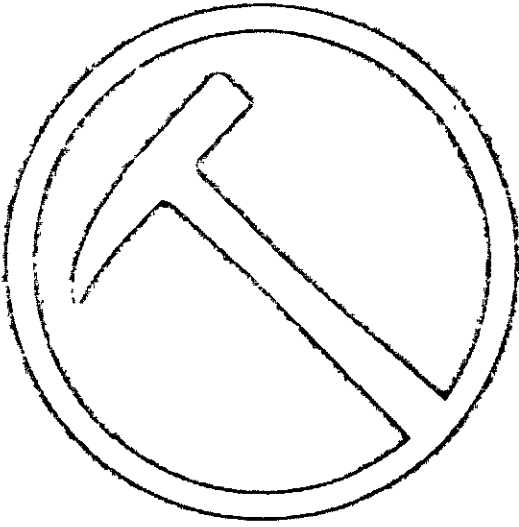
AVA CROWE is recovering nicely from surgery at Good Samaritan Hospital and she should be at home by this time.

* * * * *

MEMBERSHIP ROSTER

name	street address	city	state	telephone
ADDRESS CHANGE				
Schull, Mr. & Mrs. Bert R.	418 North Holland,	Portland 17,	Ore.	285-2755
Freed, Miss Hilda W.	1127 American Bank Bldg.	Portland 5,	Ore.	222-1658
Smith, Mrs. Ben F.	2409 S. E. 51st	Portland 15,	Ore.	236-8387

* * * * *



Official Publication of the Geological Society of the Oregon Country

October 1964

Vol. 30 No. 10

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1 yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2 yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3 yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR OCTOBER 1964

Activities of the Geological Society, as scheduled below, will meet on Pacific Daylight Saving Time up through the 25th of October 1964.

Every
Thursday

LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue, Portland, Oregon

12:00 M. - These weekly gatherings are held in the Mountain Room adjacent to the main cafeteria. A variety of food items, to suit many individual tastes, is available for purchase in the main cafeteria.

Reservations are not required to attend these informal sessions where publications and specimens are examined and discussed and impromptu talks on geology and related subjects are heard. Additional information may be obtained by phoning Mr. Leo F. Simon, Luncheons Chairman, at 236-0549.

October 9
Friday

LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon

7:30 P. M. - "This Land is Yours", an illustrated program sponsored by the Oregon Chapter of the Nature Conservancy. Dr. John Hammond, a past president of the Society, is coordinator for the three-part presentation.

Mr. Huey Johnson, Western Regional Director of the Nature Conservancy, will speak on nature areas in the United States.

Dr. James Stauffer, also a past president of the Society, will speak on nature areas of Oregon.

Mr. Robert E. Landsburg will present a movie in color on the stages of a river from youthful mountain stream to old age.

9:00 P. M. - Social hour and refreshments following the program.

October 11
Sunday

FIELD TRIP - Wind River & Chelatchie Prairie via private car caravan

A detailed trip log has been prepared by Dr. Paul W. Howell and Mr. Albert R. Kenney, Field Trip Leaders. Copies of the four-page trip log will be available (for the nominal sum of ten cents each) at all scheduled Society activities through 9 October and at the assembly point until departure time on the day of the trip.

8:15 A. M. - Assemble at Crown Zellerbach Inn in Camas, Washington.

8:30 A. M. - Depart for Wind River and Chelatchie Prairie via U. S. Highway way 830. Latecomers possessing a trip log may easily catch up with the caravan by following the directions and map.

Field trippers should be prepared with the usual necessities such as GSOC bumper cards, lunches, geology picks, et cetera and protective clothing for inclement weather. Additional information may be obtained by phoning Mr. C. Truman L. Murphy, Field Trips Chairman, at 282-2027.

October 20
Tuesday

LIBRARY NIGHT - Lewis and Clark College in southwest Portland, Oregon

7:30 P. M. - Group meets in the Biology Building (Peebles Hall) on the campus. Program will be a review of the Annual Campout to the Bohemia Mining District in September. Personnel of the Campout are invited to bring selected specimens, snap shots, slides, et cetera for examination, discussion, display, or projection.

Additional information and directions may be obtained by phoning Mr. Murray Miller, Library Night Chairman, at 656-6724.

October 23
Friday

LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon

7:30 P. M. - Mr. Ken T. Shipley and Mr. Eric Voldbaek of the Oregon Portland Cement Co. will speak on operation and products of their firm. This lecture is one of a continuing series being presented by GSOC on Man and His Minerals.

Oct. 24-Sat.

FIELD TRIP (Tentative) - Visit to Lake Cswego Plant of Oregon Portland Cement Co. Details to be announced at Lecture Fri. 23 Oct.

NEWS OF MEMBERS

By Rowena Hoven

MAY DUNN has been hitting the trail (sky trail principally) rather consistently this summer. In May, she planed to the interior of Alaska, and subsequently experienced some thrilling rides with the bush pilots back into the wildernesses of the tundra and muskeg. Her itinerary took her over the Valley of Ten Thousand Smokes, Mt. Katmai and Mt. Novrupta, with stops at Nome and Kotzebue, an Eskimo village approximately 2,000 years old located on the Bering Sea, and classified by May as "pretty primitive". She was particularly impressed by the wild game she saw, the miles of snow capped mountains, and the earthquake damage around Anchorage. This adventure was followed by a trip on the mailboat which travels up the Rogue River from Gold Beach to Agness. At a later date, Paul and May explored southern Oregon and northern California where they traveled through the Klamath National Forest and the Trinity River area. They report the Trinity Alps are a very impressive pile of rocks.

HUGH OWEN has returned from a three weeks vacation in England, where to his amazement he was asked if he were a North American and if he was having his first trip to England. On the first leg of his motor trip he was shocked at the "wretched" traffic conditions, and after 60 miles of exhausting travel he took refuge in the home of a friend for five days. This gave him an opportunity to become more or less acclimated and he continued with the travel schedule, visiting numerous cathedrals, ruins and "those old familiar places". Despite all the changes in England, he felt at home in London, so we are fortunate that he found his way back to Oregon, where he really belongs.

BOB WILBUR is planning to wander south of the border on a trip sponsored by the Pacific Northwest Electric Railway Association, a railroad hobby group furthering the interests of railroad transportation. (Actually the "Electric" in the association's name is just window dressing now.) Three chartered Pullmans with 60 passengers will leave Portland on October 9, and the tour terminates on November 1. The excursion involves traveling over four railroads. The group will be going down the west coast of Mexico through Nogales, with a one-day stop in Guadalajara, and then on to Mexico City for four days. Eventually they will reach Merida in Yucatan where the tour members will transfer to buses for a four-day trip in that area, visiting Chichen Itza and other Mayan ruins in Yucatan, and then on to Uxmal. Returning by way of Mexico City and El Paso, Bob will leave the group in San Diego where he will visit his daughter and her family for a couple of weeks. This will be a sentimental journey for Bob as for eight years he worked for the U. S. Foreign Plant Quarantine service in Nogales doing railroad inspection work, principally on the fruit and vegetable trains. AVA CROWE is another GSOCer who will be making the trip.

We are awaiting a report from the FRED MILLERS and EMILY MOLTZNER on their spectacular train trip to Lewiston on the weekend of September 19th.

BRUCE SCHMINKY and CLAIR PENSE, accompanied by their wives, were among the 2,000 persons attending the Convention of the American Congress on Surveying & Mapping at Kansas City, Mo., Sept. 24-26. Oregon Section members were busy promoting a like meeting of the Congress for Portland next August.

OSCAR and WILMA BERG recently observed the flora, fauna and geologic features of the high desert in the Steens Mtns. area in southeastern Oregon.

A guest at our meeting Sept. 25th was WILLIAM G. FLIOT III, of Washington, D. C., brother of RUTH ELIOT PRENTISS.

ELIZABETH GILLIAM is vacationing in Denver, Phoenix, with a side trip to Grand Canyon, then to Pomona. Next to Los Angeles where she'll visit the Planetarium and Los Angeles County Museum, with its famous exhibit of animals of Pleistocene age from the La Brea Tar Pits.

In the middle of September BILL FREER jetted to Chicago to attend the convention of the National Federation of Federal Employees. Bill, who is President of Local No. 7 -- the fifth largest in the Federation -- tells us that this independent, non-profit, employee organization is the oldest and best known in the country, and works for the benefit of both the employees and the Government. In 1920 it secured the first retirement for Federal employees -- then only \$720 a year -- and in 1923 it successfully promulgated the classification system, which brought order to a chaotic condition throughout the Federal employment structure. After the convention

PRESIDENT'S ANNUAL CAMPOUT--SEPTEMBER 4-8, 1964

By Fred E. Miller

Early Friday GSOC'ers began to gather at the Rujada Forest Camp. First to arrive were the Stauffers with "Aunt" Emily Moltzner. Their camp was enhanced by a new 9' x 12' tent complete with rug. Other first-day arrivals were the Bruiniers, Gilchrists, Taggarts, Bixby, Campbell, and Murphy. Truman might have been there first but, following his own directions, he went eight miles up Brice Creek before discovering he should follow Layng Creek. Later a few well-placed signs kept others from going astray (didn't they?).

Tents went up (all but the Gilchrists' trailer), pans went down, and it was supper time. As shadows vanished in the twilight the dancing council fire drew everyone to exchange views with the stars and each other. Astronomy was the prevailing topic.

Saturday breakfast was tucked away by the time late comers began arriving. First jaunt was 1.1 miles by car (seemed like 2 if you walked) to the road cut through upper Oligocene tuff prolific with leaves, many similar to contemporary flora (more about this in a subsequent issue, or see "The Rujada Flora of West Central Oregon" by Rajendra Lakhoupal). Don Campbell hung by tooth and toenail to separate samples for everyone that wasn't satisfied with his own efforts. Drs. Gilchrist and Stauffer offered expert analyses of the alders, sycamores, and sumacs brought to light. Conifer needles were the theme of Emily Moltzner's specimen. Mrs. Irma Sullivan opened a layer and found the perfect remains of an Oligocene knothole. On Sunday with Emily Moltzner she found the counterpart in Recent wood.

After lunch, while some scouted the Rujada Point road, the devoted were back at the fossil beds. By suppertime everyone was ready for food. Again the council fire blazed; DeForest Bixby was the chief fire maker. Cedar branches circulated by Dr. Gilchrist tested the acumen of the group to identify the species. Trip Chairman Truman Murphy wore out his thumb with his guitar accompaniment of the songfest from "Barney Google" to "Good-night Ladies", while Echo II sailed overhead.

Sunday morning the caravan was ready to roll at 9:30 with Drs. Stauffer and Gilchrist in the lead and Irv Ewen, Truman Murphy, and Don Campbell guarding the rear. First stop and last chance for gasoline or orange juice was the Disston Store. Seven miles later the group lined up along the precipitous edge of Brice Creek to examine the falls below and the steep exposure of basaltic andesite above. An andesite dike appears to have penetrated this formation.

Next stop was an unnamed falls in a beautiful glen, rich with moss, shadowed by cedars and firs. The day's objective was a bog. New logging roads, not yet shown on most of the maps, created a problem that gave time for picking huckleberries, blackberries and examining the red rocks (agglomerate stained with iron oxide). With the decision made, the caravan proceeded to Gertrude Lake.

Here an acre of bog surrounds and extends northward from an acre of lake. The lake is surrounded by sedge, but 25 species typical of bogs are identifiable. Most photogenic was Monkshood (*Aconite*). Lunch time arrived, was soon dispatched and the caravan moved westward along the Noonday Ridge. An exposure of successive formations of breccia, agglomerate and lapilli tuff brought the caravan to a halt. Two miles further Dr. Gilchrist spotted an Alaska Yellow Cedar (*Chamaecyparis Nootkatensis*), and shinnied up the tree for a sample of the cones. From here Fairview Peak dominated the horizon, a challenge to be conquered.

Next point of decision was the Champion Saddle. After scouting the Champion Mine (to the right), the turn was to the left. We came upon a most picturesque person--an ancient bearded prospector, standing by the road with his pack and staff. He had run out of food. Some of the caravan dug into their lunch leftovers to give him sustenance which he tried politely to decline. Turned out it was the "Professor" Floyd Day, who for 80 of his 94 years has prospected the Bohemia. He taught school before he became an accountant in Cottage Grove and now spends his summers prospecting while his wife goes to Seattle.

At the Bohemia Saddle we turned to the right and made the climb to Fairview Peak. A few walked from the last switchback.

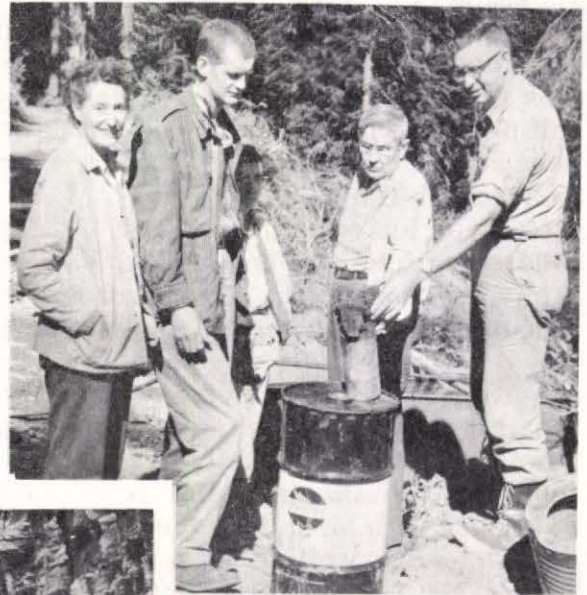
Dick Grimes, forest lookout at Fairview Peak for the past five summers, was invaded by the large party of GSOC enthusiasts, but willingly extended the courtesies of his lofty aerie while the intruders fingered his telephones, two-way radio, fire-finding instrument,



Caravan reaches Nooday Ridge (at 11:15 A.M.)



Drs. Gilchrist and Stauffer classify fossils



The workings of a diamond drill are pointed out by Harold Barton



"HEADS UP!"



Francis Gilchrist shinnies up Alaska Yellow Cedar



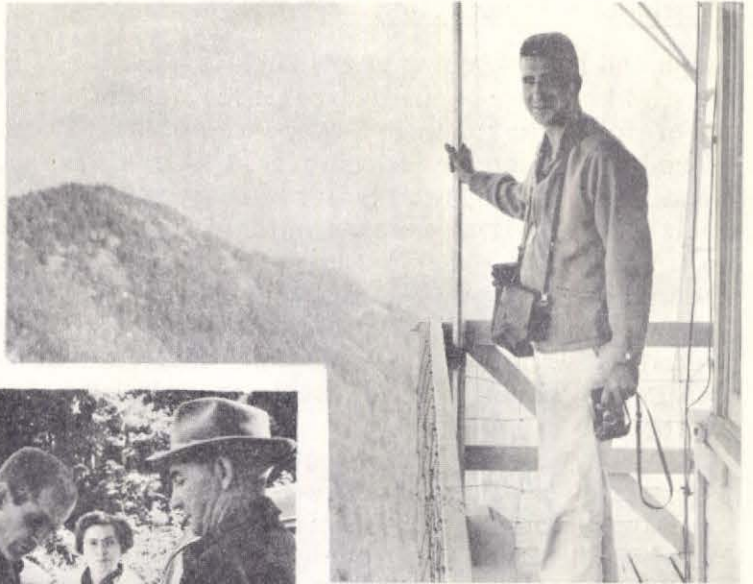
Mine size "Pullmans" and their air engineer

G S O C
 PRESIDENTS' ANNUAL
 CAMPOUT
 SEPTEMBER 4-7, 1964

photos by Irv Ewen
 Fred Miller



Lookout of Fairview Peak is
Dick Grimes with companion



Irv Ewen reaches Fairview Lookout



Bill Barto demonstrates how the
clomp brings out the core



GSOC laborers start Labor Day at the Vesuvius Mine
Owner Ray Nelson says "No openings"



Ray Nelson tells GSOC'ers of Bohemia's
glorious past



Evening Council fire

President's Annual Campout - cont'd.

maps and housekeeping gear. Dick is a senior at Oregon College of Education at Monmouth. He said his most exciting experience was the reporting of eight fires in one hour during a severe electric storm in September of 1963. From the eminence of 5,933 feet the party looked down upon the mountain tops from all the cardinal points of the compass. Mounts Hood, Jefferson, Three Sisters, Diamond Peak, and Thielson were silhouetted on the horizon while silvery clouds in the valleys below made exciting photography. From here on it was a roller-coaster ride down Sharps Creek Canyon with an occasional stop for specimens.

De Bixby's council fire was blazing brightly by the time dinner and the dishes were tucked in. With the day's questions dissected the songfest began. Highlight of the evening was Dr. Gilchrist's discourse on the development of mammals from the pre-Cambrian protoplasm.

Monday dawned with threatening sunshine. By 9:00 A.M. the caravan was on the road, well spaced to allow maneuvering up Sharps Creek Road.

Ray Nelson, Nelson Electric Company of Cottage Grove, proprietor of the Vesuvius Mine, and his wife Gen received the party at their cabin at the mine entrance and courteously gave us a very worthy history of the operations at Bohemia Mountain from its earliest day. Mr. Nelson has published his history "Facts and Yarns of the Bohemia Gold Mines" (1959), and generously presented the Society with a copy which is available to all members at the GSOC library.

The party then walked along a half mile of shelf road to the entrance of the New Musick Mine. Working the exploratory tunnel for the Federal Resources Corporation of Utah were Ed, Jerry, and Roger of Brown Brothers Construction Company. After picking over the tailings for galena and sphalerite the group was invited to tour the tunnel. Three ore cars were coupled to the compressed air engine and four GSOC'ers doubled down in each car with heads, arms and elbows pulled in while the engineer opened the valve that pushed the train for 1800 feet. This drift probes a section of the ore vein not previously explored. During stops for recharge of air, doubled-up knees were straightened and the walls and ceilings scanned for ore veins. At the end of the ride all piled out and slogged the last 100 feet to the face. Veins were examined and specimens selected. Then all piled into the "pullmans" for a nonstop trip to the entrance.

Our host to the Bohemia Mining District was Harold E. L. Barton, consulting mining engineer and geologist of Eugene. Mr. Barton, representative of Federal Resources Corporation of Utah and of Lane Minerals, Inc. of Cottage Grove, has long been associated with the Bohemia Mines, knows every inch of the terrain, and was able to give us an exciting and educational tour. He was accompanied by his daughter Edith (U of O, Eugene) and son Stephen.

The New Musick Tunnel is 430 feet below the Musick diggings on the opposite side of Bohemia Mountain and had just reached a vein (70° dip) that intersects the older drifts. Since previous mining attempts had seldom probed deeper than 300 feet it is assumed that the ore body, though possibly less rich with depth, will still be profitable in modern recovery procedures.

At Harold Barton's invitation we ate our lunch in the barracks kitchen of the Champion Mine and shared his coffee. He related stories of the past glory of Bohemia and of hopes for modern development, illustrated with his own drawings and those from the U. S. Bureau of Mines Information Circular 7512 (out of print).

Our next scavenging stop was the Musick tailings. Most rewarding were the peacock hues of galena, iron and copper at the Musick-Winze dump. At the Helena the workings of past strikes were inspected and the most promising tailings picked for some home-style gold panning. Farther down the mountain a core drilling operation that is probing deep into the mountain's interior was examined. Back at the Helena Bill Barto of Boyles Brothers Drilling Co. showed the diamond bit and demonstrated the core clamp that brings back the core story intact.

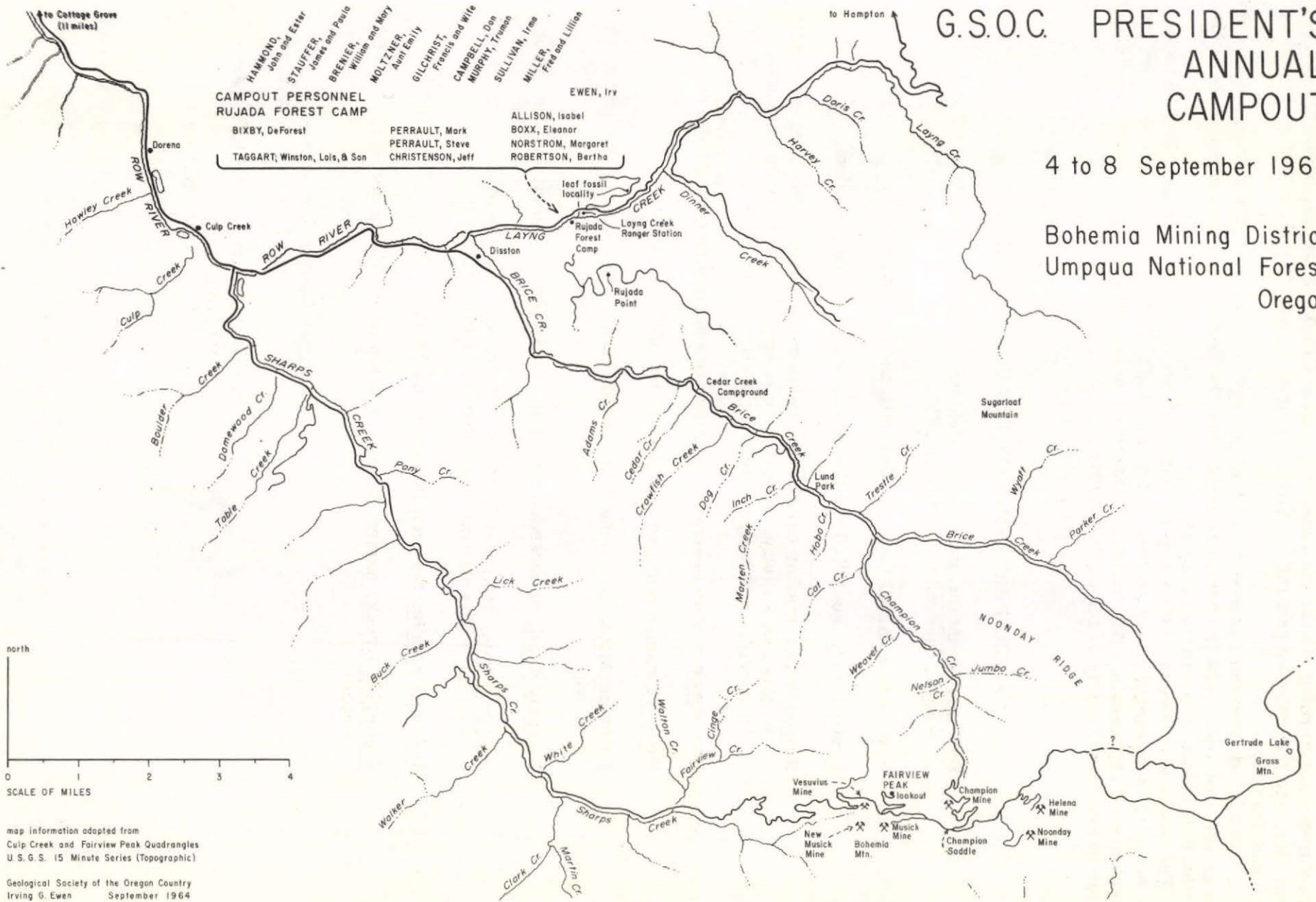
Last stop was the recovery plant at the Champion Mine. Here Harold Barton described in some detail the processing and problems of economic recovery from the oxides and sulphides of this area. He also distributed samples from an outcrop of tourmaline near the Musick Guard Station.

We said farewell to a new friend and went our different ways back to camp, the more

G.S.O.C. PRESIDENT'S ANNUAL CAMPOUT

4 to 8 September 1964

Bohemia Mining District
Umpqua National Forest,
Oregon



President's Annual Campout - cont'd.

adventuresome returning via the road down Champion Creek. Some members had left earlier in the day, and others were packing for the trip home. A few stayed another night and returned Tuesday.

It was a most rewarding campout--rich in geology, fresh air, and fellowship with a mighty fine group of people. New friends were made, and the Society gained a new member, Mrs. Bertha Robertson, who came as a guest.

The Geological Society of the Oregon Country is deeply indebted to Mr. Barton for the day he spent in making the tour so successful, and for the advance arrangements with the companies he represents. His charming daughter and helpful son were a happy addition to the interest and variety of the day's activities.

* * * * *

GEOGRAPHIC NAMES OF THE BOHEMIA AREA

Bohemia Mountain, named for "Bohemia" Johnson, a native of Bohemia, who discovered the mines in 1863.

Dorena was named for Dora Burnette and Rena Martin.

Layng Creek, so called for George Layng, a nearby resident.

Rujada was a lumber camp at the eastern terminus of the Oregon, Pacific & Eastern Railway, named for a telegraph code book and means "a considerable body of standing timber is available".

Row River -- so designated because two neighbors quarreled continually.

Disston, named because of Disston saws used in logging.

Fairview Mountain, once you stand on its top, the naming is clear as the view.

Noonday Road, superseded the Annie Trail. Built entirely by hand labor.

Sharps Creek, after old "Bohemia" Sharp, an early prospector and road builder. The stream is a tributary of Row River.

Bohemia Saddle, between Bohemia and Fairview Mts.

Champion Creek, named after the Champion mine situated near its headwaters.

"Oregon Geographic Names" --
Lewis A. McArthur

"Facts and Yarns of the Bohemia
Gold Mines" --
Ray Nelson

Emily Moltzner

* * * * *

TRAIN TRIPPERS STUDY GEOLOGY

By Emily Moltzner

Incidentally climbing a mountain while sitting in the train, nine GSOCers among some 300 excursionists, progressed from 30 ft. at 10th & Hoyt Sts. at Portland, to 3750 feet at Craigmont, Idaho, with Sunset Tours' River Gorges Excursion September 19-20.

Master-minded and supervised by CHARLES (CHUCK) HAYDEN, president of Vernonia, South Park & Sunset Steam RR, we rolled through the gorges of the Columbia and Snake and along the banks of the Clearwater rivers. Varied formations of Columbia River basalt several thousand feet thick, from more than a hundred lava flows, evidence some 15 to 20 million years of geologic time. The trip log prepared by DR. PAUL W. HOWELL, geologist with US Army Engineers, is a guide and authority of the area, he having previously scouted it.

The various dams have tamed the Columbia and Snake rivers, now little more than lakes, -- a great loss scenically, perhaps justified by the need for more and more electric power.

Fishermen in boats, infrequent flocks of unidentifiable birds, a few herons wading, fat Hereford cattle practically stampeding as we rushed by, complacent horses ignoring us, and a large colony of pigs running to their feed trough, enlivened the landscape.

Super-spectacular was the 34 mile climb via the Camas Prairie Railroad from Spalding to Craigmont, with its tortuous turns, terrifying trestles, twisting tunnels, -- all while we glanced downward fearfully toward the tracks way below. We passed through groves of pines, maples showing autumn colors, and saw a couple of deer leaping to safety.

Craigmont boasts a considerable number of grain elevators to store its principal crop. Being Sunday, none of the citizens of this clean little town were on hand to greet us.

The descent to Lewiston was uneventful and gave opportunity to note the large plant and stock piles of the Clearwater Lumber Co.; also more columnar basalt and some conglomerates.

At Granite Point we halted to gather specimens of this beautiful black and white rock.

Another stop was made at the ghost village of Riparia, where photographers thrilled over the ancient buildings.

Everyone with whom we talked was delighted with the ride, the accommodations and meals at Lewiston, the lunches and service on the train, and the carefree camaraderie. Most said they're going again.

HAYDEN and his volunteer helpers, all handsome young men and women, worked unstintingly throughout the journey. Climaxing their efforts, they paraded through the coaches Sunday evening, singing, with particular enthusiasm for "I've been workin' on the railroad!"

GSOCers present were FRED and LILLIAN MILLER, STEPHEN and VIRGINIA BLORE, MILVOY ROBOSKY, BOB GOLDSWORTHY, the writer, and RALPH and DOROTHY MASON. RALPH, who is Mining Engineer with the State of Oregon Dept. of Geology & Mineral Industries, was busy answering questions. Also along was LESLIE NEWELL, whom we'd like to welcome back to our membership, he having been a charter member, class of 1935.

Hope to see you next year.

* * * * *

OUR OWN NATURAL BRIDGE

Perhaps few people know it but there is a natural bridge on the Columbia River within an hours drive of Portland. True, it is not as spectacular as those in Utah but it is a real one, with water beneath. To see it drive east through Bingen about five and a half miles, between Rowland Lake and Major Creek, until you see a gravel storage pile on your right. In the cliffs bordering the river here there are two long cracks, a geological phenomena worthy of the trip, and for which I have no explanation. Debris has mostly filled them until they are from four to ten feet deep, but in the larger one there is a place where you can look down and see the water far below -- a true natural bridge.

The best time to go is in early June when the camas carpets the meadows with azure, or a little later when the *Lewisia rediviva* pins its starry blossom on the barren rocks.

Those who have not already discovered it should know that a tool known as an electrician's chisel is nearly as handy a rock tool as a geologist's hammer. It is about fourteen inches long, with a wide, thin chisel end, and can be used as a pry bar, digging tool, or for splitting slabs.

Emory Strong

LEWIS AND CLARK EXPEDITION

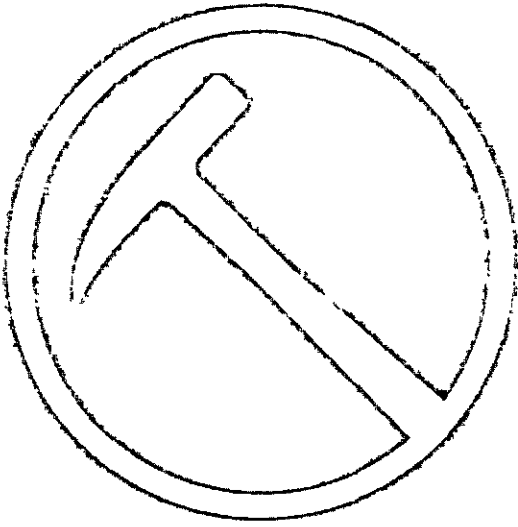
On the 31st of August, 1803, two brave men began the famous Lewis and Clark Expedition from St. Louis, Missouri, to Oregon. On September 30, 1964, a brave girl began another Lewis and Clark Expedition from Portland, Oregon to Mexico, which might easily be the more grueling of the two, for she has in her charge twenty-one Lewis and Clark College students.

Following in the footsteps of Dr. and Mrs. James Stauffer, our own MARJORIE FESSENDEN is this year leading the group in "The Experiment in International Living Program" with which Lewis and Clark College has been affiliated for the past several years. This study abroad is divided into three areas: travel, homestay, and course work. The group will have their homestay in Merida, Yucatan, favorite haunt of the Oregonian's sometimes exploring Francis Murphy, who has spoken to the Society about the Mayan ruins that are prevalent in this area. Each student will live with a native family in Merida for about three weeks, after which the group will return to Mexico City to resume study in course work. These two terms abroad offer comparable credit hours to work completed in residence on the campus.

Marjorie's principal responsibility will be in the organizing and supervising of the academic program in Mexico City. The candidates in the group come from nine states, including Hawaii, with one from Iran. They will return to the campus in April to complete the spring term in residence. Our best wishes to Marjorie!

MEMBERSHIP ROSTER

name	street address	city	state & zip	telephone
NEW MEMBERS				
Heinkel, Mr. & Mrs. Chas. E.	265 S. W. Birdshill Rd.	Portland,	Oregon 97219	636-4634
Struchen, Mrs. Montana	2050 S. W. 78th Avenue	Portland,	Oregon 97225	292-4863
ADDRESS CHANGE				
Fagan, Mr. & Mrs. Mike	6106-1/2 N. Burrage	Portland,	Oregon 97217	289-0051
Larson, Mr. & Mrs. Dennis	Lost Creek Road	Dexter,	Oregon 97431	
Reimers, Mr. Fred	633 N. W. 7th	Pendleton,	Oregon 97801	
Travis, Mr. & Mrs. H. F.	1910 N. E. 66th Avenue	Portland,	Oregon 97213	252-8888
RE-INSTATEMENTS				
Barr, Mrs. Amza (Eliz.)	823 N. E. 82nd Avenue	Portland,	Oregon 97213	253-6532
RESIGNATIONS				
Johnson, Mrs. Wallace				



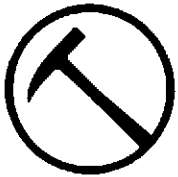
Official Publication of the Geological Society of the Oregon Country

November 1964

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

return postage guaranteed

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7098
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1 yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2 yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3 yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR NOVEMBER 1964

- Every Thursday LUNCHEON - Y. M. C. A. , 831 S. W. 6th Avenue, Portland, Oregon
12:00 M. - Once each week GSOCers gather for an informal mid-day repast in the Mountain Room (adjacent to the main cafeteria). A large selection of food items to suit many palates is available in the cafeteria. No minimum charge (purchase a trayfull or a trifle).
Luncheon sessions provide an opportunity to examine and discuss the latest publications, inspect rock specimens, and to hear impromptu talks on geology and related subjects. For more information phone Mr. Leo Simon, Luncheons Chairman, at 236-0549. Note: No luncheon on 26 November (Thanksgiving Day).
- November 13 Friday LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon
7:30 P. M. - Speaker and topic to be announced. A cancellation required a change in plans which were not final at time of publication.
- November 16 Monday FIELD TRIP - Evening tour of Carborundum Company, Vancouver, Washington
This "Lecture Field Trip" is intended to complement the talk by Mr. Laurence Sandstrom to the Society on 8 May 1964 about the Company and its products. It will be an excellent opportunity to view "first hand" some of the processes discussed. Both activities are part of the series being presented by the G. S. O. C. on Man and His Minerals.
Directions - Cross Interstate Bridge and take Vancouver exit from Interstate 5. Proceed north on Broadway Street to the intersection of 8th Street. Turn left and drive westbound on 8th Street which will change direction after crossing under the railroad bridge. Continue on Port Way until reaching the plant.
7:45 P. M. - Assemble in the parking lot inside the main gate.
8:00 P. M. - Mr. Charles Nolan, Superintendent of the plant, will be in charge of the tour to be conducted by representatives of the company.
For more information see special item in the November issue of the News Letter or call Mr. C. T. L. Murphy, Field Trips Chairman, at 282-2027.
- November 17 Tuesday LIBRARY NIGHT - Lewis and Clark College in Southwest Portland, Oregon
7:30 P. M. - Group meets in the Biology Building (Peebles Hall) on the campus. The program topic will be "Summer Field Trips" and will include slides taken by Mr. & Mrs. George Lewis on a recent trip to Craters of the Moon.
For information phone Mr. Murray Miller, Library Night Chairman, at 656-6724.
- November 24 Tuesday LIBRARY NIGHT - Lewis and Clark College in Southwest Portland, Oregon
7:30 P. M. - Special work party! Principal project to be started is painting of library shelves and cabinets. Wear suitable clothing to participate.
To volunteer services and talents phone Mr. Miller at 656-6724.
- November 27 Friday LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon
7:30 P. M. - "Sand and Gravel and Their Many Uses" is the title of the illustrated lecture to be given by Mr. Wilbur Roush. Mr. Roush is Chief of Concrete Section, Foundation and Materials Branch, Engineering Division. U. S. Army Corps of Engineers. This lecture is also one of the series on Man and His Minerals.

ADVANCE CALENDAR FOR DECEMBER 1964

- Every Thursday LUNCHEON - As usual at the Y. M. C. A. See November calendar for details.
- December 11 Friday LECTURE - "Groundwater of Oregon" is the title of the talk to be given by Mr. Jack Sceva, geologist with the State Engineer's Office at Salem, Oregon.

MAURICE MERTON ALBERTSON

1887 - 1964

Maurice Merton Albertson, geologist, engineer, and of our membership, departed this life on October 11th after a long year's illness. The second of five children, he was born to homesteading parents at Jetmore, Kansas, in 1887. Though his early schooling was precarious, he matriculated at the University of Missouri at the age of twenty and emerged three years later as a graduate mining engineer. For the next two years he worked as a field geologist for the state of Missouri, after which he took a year's graduate work in geology at the University of Chicago.

Shortly after Chicago the gold and cobalt fields of Northern Ontario were opened, and he was off to the Porcupine Wilderness, where for several fascinating years he encountered an incredible number of varied adventures and hair-raising experiences, some of which the NEWSLETTER meant to record. But this mode of life was suddenly changed for him when he married a Canadian girl -- Leota Cedekoven -- and brought her back to St. Louis. To them a daughter, Mavis, and a son, Robert, were born.

For the next twenty-five years he was employed by the Shell Oil Company as a geologist and an engineer. In this capacity his duties required of him so much traveling over this country and Europe that he retired early at the age of fifty-seven -- just twenty years ago -- and became a Texas rancher close to Galveston. But his inquisitive mind demanded a more intellectual variety than ranching could supply; drove him to more of the traveling he had been trying to escape; interested him in the Great Books program; sent him back to school at the University of Houston for courses in sociology, history, and in biology. An omnivorous reader, he acquired books, and more and more books, many of which now repose, happily for us, on the shelves of our own GSOC library at Lewis and Clark.

We regret that Maurice Albertson was not more widely known to our membership; that we never were able to make the contacts that would have recorded in the pages of the NEWSLETTER some of those hair-raising adventures in the Porcupine Wilderness -- and in other places, too, in his widely traveled career -- but we are sure that those of us who did know him will long remember his softly fluent speech; his quiet, well-bred modesty; his sparkling wit; and his gentle, genial smile . . . Pax vobiscum, Maurice.

J. R. Rentsch

* * * * *

MEMBERSHIP ROSTER

name	street address	city	state	telephone
<u>NEW MEMBERS</u>				
McKee, Mr. & Mrs. Lew (Marian E.)	4703 S. E. Madison Street	Portland	97215 Oregon	235-6545
Robertson, Mrs. Bertha C.	3405 N. E. Cadet Avenue	Portland	97220 Oregon	254-7106
Slocum, Mr. & Mrs. Robert G. (Marie J.)	11572 S. W. Riverwood Road	Lake Oswego	Oregon	636-3514
Wanka, Miss Hildegard	2149 N. W. Everett Street	Portland	97210 Oregon	228-4232

ADDRESS CHANGE

Dr. & Mrs. John Eliot Allen	1162 S. E. 58th Avenue	Portland	97215 Oregon	236-1558
-----------------------------	------------------------	----------	--------------	----------

* * * * *

LEAVES FROM OREGON'S PAST
By Dr. Francis G. Gilchrist*

There were plenty of leaf fossils along the mountain road near the Rujada Forest Camp on our recent "President's Annual Campout" (see September issue of the G. S. O. C. NEWS-LETTER), but getting them out was a problem. The tuffs in which they were buried fractured unpredictably under the impact of geological picks. Our efforts were rewarded, however, by some reasonably satisfactory specimens. It is remarkable how much can be learned from imperfect specimens provided that some of the margin and venation is present.

What were these leaves and what do they teach us? Fortunately, this fossil location has been described by R. N. Lakhanpal (1958) in a paper entitled "The Rujada Flora of West Central Oregon" (University of California Publications in Geological Sciences, vol. 35: pp. 1-66). He studied 1,951 specimens, listed 40 species, and gave figures of many of them.

The most abundant species is an alder, *Alnus carpinoides* (Figs. 1-5). This is difficult to distinguish from the alders growing today on the canyon walls. Indeed, the fossil cones which we found were not different from the cones dropping from the red alders around us. Here is an astonishing fact: Buried in the solid rock, under thousands of feet of lavas and tuffs, and now uncovered after milleniums of erosion, are leaves almost identical with those of trees living today! We speak of the "eternal hills"; but hills have come and gone while the delicate, semiliquid protoplasm of living things has continued to reproduce according to kind.

There were other leaves which were difficult to distinguish from alder. Possibly some of them were wild plums, *Prunus*; and others were comparable to Lakhanpal's illustration of the silverbell, *Halesia*, species of which grow in southeastern United States. I doubt whether this author would have recognized these leaves if he had not also found the four-winged fruits.

Other fairly common fossil leaves were those identified by Lakhanpal as leaflets of a species of the genus *Rhus* (Figs. 6 to 9). If so, they are sumac, comparable to the smooth sumac of the southeast, *Rhus glabra*. Their small round fruits were common in the rocks.

There were leaves in our collection comparable to those which Lakhanpal labels as willow (Fig. 11) and oak (Fig. 12). I would never have suspected the latter as being an oak if I had not become acquainted with the willow oak of the east coast. Lakhanpal compares the leaves to an oak of eastern Asia.

Some leaves (Figs. 13 and 14) looked very similar to those of redbuds; but our author refers them to a genus of trees, *Exbucklandia*, now found in southern China. This identification is made on the basis of the fruit (which we did not find).

A cone which was found seems to be comparable to the cones of *Keteleeria*, a conifer of Asia (Fig. 15). There were seeds which looked on first glance like maple seeds, but the venation of the wing showed them to be conifer seeds (Fig. 10). Then there were numerous needles to which most of us paid little attention, but which were possibly those of firs.

The largest leaf found was that of a sycamore (Fig. 16, not reproduced in full) not unlike *Plantanus racemosa* which grows in southern California today. Fragments of leaves which looked like maple were found; but since Lakhanpal says that the maple genus, *Acer*, was not represented in his specimens, we must place these in *Plantanus* with the sycamores.

What do these fossils tell us about Oregon's past? Cheney, Axelrod, Brown, and others have studied the paleobotany of the West Coast, and have reached conclusions which may be summarized as follows: Some 70 million years ago, when the Age of Mammals was yet young, the climate of Oregon became warm and humid, and a subtropical flora of broad-leaved evergreen trees moved into and across Oregon from the south. This is the Neotropical-Tertiary Flora. There was as yet no Cascade Range to cast a rain shadow eastward, so that the tropical forests of the Eocene covered the continental parts of the state and reached as far north as southeast Alaska.

* Professor of Biology, Emeritus, Lewis & Clark College and Past President of G.S.O.C.

Leaves from Oregon's Past - cont'd.

Then, very gradually, the climate changed. Increased cold and dryness drove the humid tropical forests southward, where in Central America they are still to be found. A mixed forest consisting of conifers and broad-leaved deciduous trees moved into Oregon from the north, or possibly it descended from uplands. This is the Arcto-Tertiary Flora. It included our firs, spruces, "cedars", maples, alders, dogwoods, ash, cottonwood, cherry, etc., etc. On the floor of the forest there were many of the shrubs we have around us today, such as huckleberry and salal. In drier locations there were pines, oaks, and sycamores, and numerous chaparral types. Many of the trees of this ancient western Oregon forest have disappeared from this area, but remain today in eastern North America. Such are the elms, sweet gum, black gum, chestnut, beech, and hickories. Some are extinct in North America but are still found growing in eastern Asia; for example, ginkgos, dawn redwoods, Keteleeria, and numerous others.

Why did so many trees die out in Oregon? The answer may be that increase in summer dryness along the West Coast drove them to extinction. Those which managed to survive had to adapt themselves to winter rain.

This in brief is the overall picture into which the paleobotanists fit the fossil floras. Lakhampal concludes in his paper on the Rujada flora, that "the subtropical members are too few to indicate an Eocene age, too numerous to indicate a Miocene". He favors an upper Oligocene date. Yet as I see it, no clearcut evidence is forthcoming.

A surprising feature of the story of fossil leaves in Oregon is that there is so little evidence of evolution. Floras are seen migrating in and out as the climate changes. Species which become extinct here, persist in other regions with but little change. This raises the question, when and where did the floras originate in the first place? The local rocks do not tell.

* * * * *

INFORMATION FOR NOVEMBER FIELD TRIP

On Monday night at eight o'clock, November 16th, the Geological Society will be conducted on a field trip through the giant Carborundum plant at Vancouver, Washington. Host for the occasion is Mr. Charles Nolan, Superintendent of the plant.

Trippers should be aware that this is a tour of a smoky, dirty foundry and should dress accordingly, wearing rough clothes and work shoes. Shoe soles may become impregnated with abrasive emery destructive to home carpets and linoleums. Oil on the floor may be tracked home. Officials advise that one carry his work shoes in his car and change before entering the foundry. Or a pair of rubbers will fill the bill adequately.

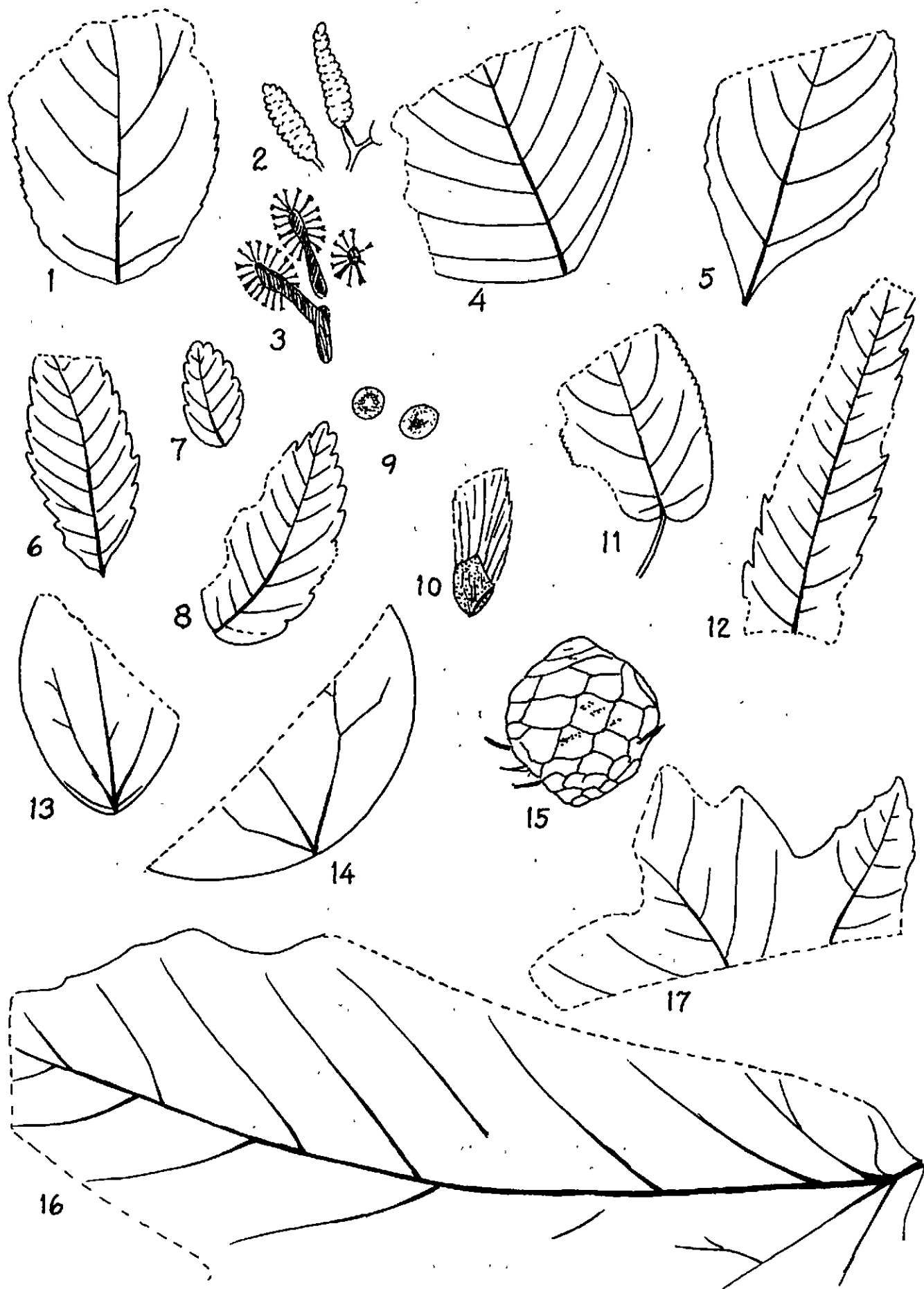
Crossing the bridge to Vancouver drivers will notice well in advance, three directional signs. Take the Vancouver lane. At Eighth Street in Vancouver turn left and continue on west into the industrial district. The road will pass under the north approach of the railroad bridge and turn right. Continue on this road to a Stop sign at the intersection with River Road. Here one turns left, of course, down the River Road past the Carborundum plant and turns in at the gateway to the large parking area. Actually, once turned west on Eight Street it is almost impossible to get lost. The fire and smoke from the plant will be a beacon.

This trip is another tour of industry in keeping with the Society's 1964 theme, Man and His Minerals. It is an important educational event; take advantage of it.

C. T. L. Murphy

* * * * *

1964



NEWS OF MEMBERS

By Rowena Hoven

PHIL BRIGAN addressed the Portland Women's Club on October 23rd. His subject was "Oregon's Scenery and Its Story".

DR. JOHN E. ALLEN is again heading the Department of Geology at Portland State College, after spending the past year at the University of Peshawar in West Pakistan. He was head of the school's Geology Department under the SEATO program. We missed John and his wife Margaret and are glad they are back home at 1162 S. E. 58th Avenue on Mt. Tabor. We hope to see them often.

When the Thursday luncheon group arrived at the YMCA on October 22 they found a picture postcard awaiting them showing the Palace of Fine Arts in Mexico City. The message was from our traveler BOB WILBUR, and he pointed out (with some concern) that the city was built on an ancient lake bed and many of the buildings are still sinking at an alarming rate.

MARGARET STEERE has gone a little far afield in her geological research (It's so easy to get carried away). She is also attempting to determine how many relatives she can visit in a three-weeks period. Her itinerary is Ann Arbor, New York, Washington, D. C., and Florida. We hope she is getting homesick by this time.

GUY and MAY DODSON are leaving November 7th for Hawaii where they will visit their son and his family in Honolulu. Although they do not have a definite schedule, they plan to see all of the islands and will be wearing their geological glasses. They hope a group of GSOCers will join them there next year so they can get together for some field trips. They plan to return about April 1st.

The Pacific Northwest Bird and Mammal meeting took LEO SIMONS to Mt. Rainier on October 17th and 18th. Leo also reported that over 2400 visitors attended the Mycological Society's annual show on October 11th at OMSI (this explains why Leo wasn't along on the Wind River and Chelatchie Prairie field trip to identify mushrooms).

DR. HODGE IN TEXAS

DR. EDWIN T. HODGE, affectionately remembered as the founder and inspiration of our Society, has accepted the invitation of Texas Technological College at Lubbock, and is serving as Visiting Lecturer for their Department of Geosciences. We're envious of the students whose privilege it is to learn under his tutelage.

He plans to return to the Portland (Oregon) area sometime during February of next year. Until then correspondence may be addressed to:

DR. EDWIN T. HODGE
Texas Technological College
Post Office Box 4109
Lubbock, Texas -79409

Note: An article entitled "Llano Estacado" by Dr. Hodge which describes the geology of the area he is visiting is scheduled for publication in the December 1964 or January 1965 issue of the G. S. O. C. News Letter.

Editor

* * * * *

WIND RIVER - CHELATCHIE PRAIRIE FIELD TRIP
by Irma Sullivan

On Sunday morning, October 11, twenty-six cars of GSOCers and their friends emerged from the fog to assemble before the Crown Zellerbach Inn at Camas, Washington. At 8:30 all promptly formed into a caravan to follow the field trip leaders, Mr. Al Kenney and Dr. Paul Howell, up the Columbia River, the Wind River Valley, and across Trapper Pass to Chelatchie Prairie. An excellently prepared trip log pointed out the many points of geologic interest to be observed along the way and explained the features to be studied at the various stops.

About eleven miles east of Camas (the first stop) we examined an exposure of Troutdale formation along Lawton Creek. This exposure contains a more ashy matrix than is usually observed in this formation. The cobbles are the usual quartzite, among other metamorphosed rocks and local materials, though some are quite large. The Troutdale Formation was deposited by the Columbia River prior to the downcutting of the present gorge, and much of the material gives evidence of having come from the far upper reaches of the Columbia drainage.

Along the next ten miles or so, various exposures of Coriba and Cascan volcanics were observed. Interspersed among these outcroppings were slump block lakes. These lakes or ponds form behind a slide area. As the slide moves ahead, a small depression is left in its wake. This fills with drainage water from the surrounding area. We were able to observe one more closely behind the Coffee Shop at Beacon Rock.

The road cut at Beacon Rock revealed an interesting pattern of bedded silts, with interbedding of boulders and gravel deposits, also left by the Columbia in its wilder moments of youth. This volcanic plug, named Beacon Rock by Lewis and Clark, is a familiar sight to all who have traveled the Columbia by any of the routes. This trip, however, provided some of us with our first close-up view. The gorge winds were blowing a gale this morning, and any thoughts of ascending the giant monolith were completely dispelled, even if time had permitted such a venture. After everyone had coffee and rested, the call to "Wind 'em up, and head 'em out!" moved the caravan on -- across the road -- while the leaders replaced a flat tire! Fortunately, this was the only casualty of the entire trip, and was dispatched with swift efficiency, and we were again proceeding on our way.

The dark lavas of Hamilton Mountain, and the light Eagle Creek sediments of Aldrich Butte provided an interesting skyline on the left, and competed closely for attention with the beauty of the waters of the Columbia River. North of Bonneville, the red scarp of Red Bluff formed a back-drop for the hummocks and hills of the Cascade landslide, which dammed the Columbia at this point some 750 years ago.

A few miles beyond this a stop was made to observe the zeolites and tachylite in an Eocene intracanyon flow of mud and basalt. Tachylite formed when hot basalt flowed into water and cooled suddenly. This road cut also contained deposits of green chlorite, which is a brittle mica, not like the flexible sheet mica with which we are most familiar. This formation corresponds to the Clarno fm.

Turning left just before reaching the Wind River bridge, terrace gravels were observed in the road cut as it ascended the hill, then some intra-canyon Trout Hill lava flows, and further up the hill, came upon a deposit of Missoula Flood grit, or sand.

This towering bluff is little indurated, and a steady flow of loose material poured down the face of the towering bluff in narrow rivulets, cutting vertical channels across the bedding planes. This most photogenic exposure is believed to have been deposited by a great eddy of the Columbia River during the time of the Missoula Flood. Silts and sands deposited by these flood waters are to be found in an area extending from Troutdale into Portland, north three miles beyond Vancouver, and south to the Oswego Gap and Wilsonville. It was one of the more recent of the spectacular events which occurred in this area.

Leaving the town of Carson, the caravan wound through a beautiful valley, dotted with prosperous farmsteads. Many plantings of Sequoia trees were noted here, as well as some other ornamentals which were not so easily identifiable. Vine maple wore some of the most

Wind River - Chelatchie Prairie Field Trip - cont'd.

brilliant reds seen, and dogwood was outstanding with its purplish tones of color. Down the center of this valley, the Wind River has cut a canyon, 200 feet deep, through Trout Hill lava, to expose at the bottom some tightly folded, unidentified older rocks. From the bridge, these rocks were plainly visible through the crystal-clear waters of the river.

Somewhere in the vicinity of the Hemlock Ranger Station, the caravan turned onto a winding road to find a place to eat lunch. The road led through virtually undisturbed timber, falling golden leaves, and bright sunlight to a most delightful forest camp. We forded a stream, parked among the trees, and carried our food across a rustic bridge to the picnic tables. While food was being consumed from necessity, it took second place to the surroundings. Giant Douglas firs vied for existence with hemlock and true firs, while vine maple and alder shed their gold and amber leaves over the ground. Mushrooms, "toadstools", lichen, and moss grew in profusion, but we had not one authority present to give them names. One specimen, however, was identified. All who observed it agreed that Fred Miller had properly identified it as a Wiggly Toadstool.

Reluctantly, we left the camp and drove on to Trapper Pass, which we crossed at an elevation hardly high enough to make our ears pop. The area was very rugged and scenic, however, and the geologic formations exposed were tentatively classified as Eagle Creek. We were able to view Wind Mountain, and Trout Hill, from which flowed the Pleistocene Trout Hill lavas, blocking the drainage of many local streams. The outspreading terrain was dotted with many peaks of varying heights, most of which were Pleistocene volcanic cones with craters. Some quite recent lava flows were visible, on which a sparse growth of timber had gained a foothold.

Climbing to the crater of Bare Mountain was an experience not soon forgotten -- especially if the climber had not recently practiced climbing. Muscles which give their utmost do not quickly forget the sacrifice! The sides of the mountain had been cleanly logged, but the interior of the crater was still covered with timber. This cone was formed by highly explosive eruptions of andesite, so violent that some country rock was carried out, much in the manner of the maars in Central Oregon. The surface is covered with finely vesicular particles from lapili to boulder size, in addition to the chunks of andesite. The crystals of hornblende were easily visible, and one pea-sized specimen of feldspar with albite twinning was found. Our leaders reported that when this area was scouted in July, the wild flowers were beautifully abundant. Some evidence remained on this October day, and one bed of mosses, lichen, creeping juniper, and phlox growing among the frozen boulders of froth at the lip of the crater held the party entranced until the pressure of time moved us on. One wonders what changes in the ecology of the spot have taken place since the recent logging operations, and what changes are yet to occur.

Continuing on our way for about a quarter of a mile, we again stopped, this time for picture-taking. Mts. St. Helens, Adams, and Rainier posed stark and clear in the bright sunlight, but Mt. Hood remained shadowed in the haze.

From this point the road turned, and would sharply around deep canyons and through beautifully wooded areas. For this writer, who was also a driver, geologic outcroppings and specimens were displaced by green verdure and close attention to the road, until we suddenly dropped into the lovely Chelatchie Prairie. Here at the little village of Chelatchie, near the International Paper Company sawmill and plywood plant, we stopped to observe Tum-Tum Mountain and the terraces cut into the walls of the valley. What force dammed Canyon Creek, to cut out the valleys, then disappear to leave only the terraced ridges as evidence, is unknown. But the acres of emerald grass, grazed by the herds of fat horses and cattle attest to the richness of the soil it left behind.

Chelatchie, the end of the tour, was a welcome oasis to both drivers and cars. Especially drivers who traveled without water to drink! Here the caravan disbanded to scatter homeward.

We are all deeply indebted to Dr. Paul Howell and Mr. Al Kenney for planning so carefully this most educational and delightful trip. I am sure they must have somehow arranged for the weather, also. To you, sirs, Gracias, amigos!

* * * * *

CASTLE ROCK - BEACON ROCK

In 1906 or 1907 an article appeared in the "Oregon Journal" stating that a carload of dynamite had been unloaded at the foot of "Castle Rock" (now known as Beacon Rock). The rock was going to be used for building purposes in the City of Portland.

The article inspired Bert Geer to write a poem entitled "Plea for Castle Rock" which was published in newspapers throughout the Northwest and California. The poem created such public sentiment that the dynamite was reloaded and shipped away leaving the rock still standing -- an age old landmark on the north bank of the Columbia River.

Bert Geer is the uncle of Reba Wilcox who is a member of G. S. O. C. He now resides at Maryhill, Washington on a peach and apricot orchard.

Editor's Note:

Mr. Bert Geer's "Plea for Castle Rock" is reprinted on the following page. (Page 84). It was felt to be timely in view of the recent field trip (October 11th) which included the great monolith as one of the geologic points of interest.

We are pleased that Mr. Geer's poem was brought to our attention in time to appear with the publishing of the field trip report. We were similarly fortunate in 1962 when Mrs. Emily Moltzner's poem "King Tut's Mummy Soliloquizes" was received in time to appear in the October issue along with Mr. Fay Libbey's article on "The Treasure of Tutankhamen".

THIS LAND IS YOURS

The October 9th Friday evening Library lecture time was taken by a three-part program sponsored by The Nature Conservancy and coordinated by Dr. John Hammond, President of the Oregon Chapter. The first part was an illustrated talk by Huey Johnson, Western Regional Director of The Nature Conservancy, on nature areas in the United States, together with a report of the progress of the organization. Although Mr. Johnson felt that things were moving slowly, he reported that over one hundred and twenty nature areas had been put aside, and that there was over \$750,000 in the bank. He told us that Rachel Carson had left one third of her estate to the organization. We were pleased to hear that slides of our own lovely Camassia Area are included in promotional programs.

The second phase of the program was given by Dr. James Stauffer, the Oregon Chapter's first President, and we were amazed and delighted to hear of the very excellent progress that has been made by the Chapter in the three short years of its existence. The shining examples are the Camassia Area and Butte Creek, that have both been secured, and Onion Peak and The Oaks Bottom, that, among several other spots, are under consideration.

The last part of the program was a sylvan charmer in the form of a tone poem photographed in color, edited, and shown by Robert E. Landsburg, who makes documentaries, tone pictures, stills and motion pictures of anything you need. This one was about the life of a stream from infancy to old age. It began with just a damp place on the rock face of a cliff that gradually oozed into a trickle. Joined by other trickles it became a little stream - just a baby - bubbling, gurgling happily in the consciousness of its new form of life. Now, a little larger and growing rapidly, it is gaily plashing, splashing in its own bed of sand and mossy rocks. Soon it has gained new strength and volume and energy, and has got to the awkward age where it is dashing, crashing in its boisterous, roisterous headlong career plumping, bumping into the shoulders of boulders. Now, it is a teen-ager with all a teen-ager's mixed up natural exuberance and good intentions, trying to be sedate when it doesn't forget, sometimes flowing more smoothly, but not for very long, glancing, dancing, backing and advancing, drenched in the spray of its own ricochet, twirling, swirling toward the top of the wall where rashly, brashly it becomes a high waterfall. -- We're sorry about all this. Where we made our mistake was in describing it as a tone poem without realizing how susceptible we were to suggestion. Anyway, the stream is now larger and quieter. It isn't flowing as fast as it was, but more purposefully; it shows only occasional exuberance in a ripple on a riffle; it is now a young adult. But soon it is at a wider, deeper stage, flowing stately, sedately between two ranks of tree-lined banks in quiet middle age. And before we know it, its now dark waters rise and fall to the slow pulse of the tide and it flows quietly, serenely; into the eternity of the sea.

W. M. F.

PLEA FOR CASTLE ROCK *

Standing there resisting age and time,
 Uplifting, huge, majestic and sublime,
 Unmoved though scarred by warring elements,
 Still shouldering up its towering battlements,
 It stands! A crown, a wreath of vernal wood;
 The castle monolith has always stood!

Mirrored where the river comes to greet
 (Bending in obeisance at its feet)
 It casts in shadow down into the stream
 The idol of its wavering, unborn dream,
 And rears above the forest's dismal roar
 A guard that's keeping vigil evermore.

The craft of earth, the wiles of nature's wild,
 Have left it standing firm and unbeguiled;
 The river's never ending rush of tides
 Have beat in vain on those unflinching sides;
 The forest trees have gored their horns to dust,
 But still the rock defied each plunge and thrust.

Within its shadow heaps of human bones,
 Have bleached and crumbled, and the stones
 About its base on which the heaps once lay
 Have given up to frost and to decay;
 It stands eternal in its rugged height
 Symbolic of unconquerable might.

Upon its brow the trees have hung a crown
 From which a liquid crystal sparkles down;
 The wind and river croon and bathe its feet,
 Its sun-kissed flowers yield a fragrance sweet --
 A victor over forest, frost, and flood,
 It stands as boldly as it always stood!

The first explorers found beneath its dome
 A shelter from the storm, a haven-home;
 It served them as a tower from which they spied
 The waiting Paradise--a land untried;
 Unnumbered hordes have worshipped at its base
 In multitudes, in race succeeding race.

Should hand of man play havoc and defile
 The grace and grandeur of that castle pile?
 Should ease of access or rock-worth employ
 To wreck the ancient landmark and destroy?
 If saying nay would leave it standing so,
 O, would its million tongues might thunder,
 NO!

Macley, Oregon

Bert Geer

* See item on preceding page 83, entitled "Castle Rock - Beacon Rock".



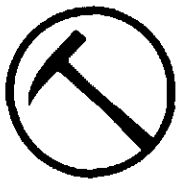
Official Publication of the Geological Society of the Oregon Country

December 1964

THE GEOLOGICAL NEWS LETTER

2020 S. E. SALMON STREET, PORTLAND, OREGON 97214

Non-Profit Org.
U. S. POSTAGE
PAID
Portland, Oregon
Permit No. 999



State of Oregon
Dept. of Geology & Mineral Industries
1069 State Office Bldg.
Portland 1, Oregon

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

ADMINISTRATION

SOCIETY OFFICERS

President	Mr. Irving G. Ewen	4128 N. E. 76th Avenue	Portland, Oregon - 97218	281-7096
Vice President	Mr. Fred E. Miller	3122 S. E. 73rd Avenue	Portland, Oregon - 97206	771-6154
Secretary	Miss Shirley O'Dell	4710 S. E. Stark Street	Portland, Oregon - 97215	234-2318
Treasurer	Mrs. Albert R. Kenney	4125 S. E. Gladstone St.	Portland, Oregon - 97202	775-5697
Directors 1 yr.	Mr. Jess R. Rentsch	1110 S. W. 11th Avenue	Portland, Oregon - 97205	223-2161
2 yr.	Dr. Ruth E. Hopson	4138 S. W. 4th Avenue	Portland, Oregon - 97201	222-1430
3 yr.	Miss Margaret Steere	2064 S. E. 72nd Avenue	Portland, Oregon - 97216	774-6382

EXECUTIVE COMMITTEE MEMBERS

President - Irving G. Ewen	Directors - Mr. Jess R. Rentsch	Past Pres - Mr. Leonard H. Delano
Vice Pres - Mr. Fred R. Miller	- Dr. Ruth E. Hopson	- Mr. Albert R. Kenney
Secretary - Miss Shirley O'Dell	- Miss Margaret Steere	
Treasurer - Mrs. Albert Kenney		

GEOLOGICAL NEWS LETTER STAFF

Editor	Mr. William M. Freer	2405 S. E. Taylor Street	Portland, Oregon-97214	232-9601
Asst. Editor	Mr. John F. Mihelcic	13029 S. E. Ash Street	Portland, Oregon-97233	252-7572
Business Mgr.	Mr. Robert F. Wilbur	2020 S. E. Salmon Street	Portland, Oregon-97214	235-7284

ACTIVITIES CHAIRMEN

Luncheons	Mr. Leo F. Simon	7006 S. E. 21st Avenue	Portland, Oregon-97202	236-0549
Field Trips	Mr. C. T. L. Murphy	2027 N. E. Wasco Street	Portland, Oregon-97212	282-2027
Lectures				
Library Night	Mr. Murray R. Miller	1018 Promontory Avenue	Oregon City, Oregon	656-6724

OBJECTIVES OF THE SOCIETY

To provide facilities for members of the Society to study geology, particularly the geology of the Oregon Country*; the establishment and maintenance of a library and museum of geological works, maps, and specimens; the encouragement of geological study among amateurs; the support and promotion of geologic investigation in the Oregon Country; the designation, preservation, and interpretation of important geological features of the Oregon Country; the development of the mental capacities of its members in the study of geology; and the promotion of the better acquaintance and closer association among those engaged in the above activities.

Persons desiring to become members should contact the Secretary.

Regular annual dues, single or family memberships, are \$5 for residents of Multnomah and adjacent counties (Clackamas, Columbia, Hood River, and Washington Counties of Oregon; Clark and Skamania Counties of Washington). Single or family memberships are \$3.50 for residents living outside of the above counties. Junior memberships are \$2.00.

Payments should be made out to the GEOLOGICAL SOCIETY OF THE OREGON COUNTRY.

* The "Oregon Country" is a loose term generally considered, as in the early days, to embrace the states of Oregon, Washington, Idaho, western Montana, and southwestern Wyoming.

ACTIVITIES OF THE SOCIETY

See calendar of the month for details.

Luncheons: Every Thursday noon

Field Trips: Usually one field trip per month via private car caravan or chartered bus. Occasional two-day trips with overnight camping.

Lectures: Illustrated talks on geology or related subjects. Two lecture meetings, the second and fourth Fridays, of each month.

Library Night: The third Tuesday evening of each month.

Publication: The Geological News Letter, published once each month, is the official publication of the Society.

CALENDAR FOR DECEMBER 1964

- Every Thursday LUNCHEON - Y. M. C. A. , 831 S. W. 5th Avenue, Portland, Oregon
 12:00 M. - Purchase food items in the main cafeteria (a large selection is available to suit many appetites). Take food selections and follow the trail by the Foothills Room to the Mountain Room. Here the luncheon group meets and eats in an informal atmosphere presided over by Mr. Leo Simon, Chairman. There is no minimum charge and reservations are not required.
 These informal sessions provide an opportunity to examine and discuss the latest publications, interesting specimens, or field trip pictures. Occasionally short talks are heard on geology and related subjects.
- December 11 Friday LECTURE - Public Library, 801 S. W. 10th Avenue, Portland, Oregon
 7:30 P. M. - "Groundwater of Oregon" is the title of the illustrated talk to be given by Mr. Jack Sceva, geologist with the State Engineer's Office at Salem, Oregon. Mr. Sceva's talk is one of a series on Man and His Minerals being presented by the Society.
- December 13 Sunday FIELD TRIP - Tour of the Rice Collection at North Plains, Oregon
 2:00 P. M. - Assemble at the home of Mr. and Mrs. Richard Rice which is located on the Sunset Highway (U. S. 26) about 15 miles west of Portland. (Look for small billboard advertising "Roxy Motel" on north side of highway at entrance to driveway.)
 This is an excellent opportunity to visit one of the outstanding private collections on the west coast. This "lecture field trip" will complement the talk given by Mr. John Mihelcic to the Society on 25 September 1964 entitled "Minerals from Many Lands". Both the Field trip and lecture are in keeping with the Society's emphasis on "Man and His Minerals".
- December 15 Tuesday LIBRARY NIGHT - Lewis and Clark College in southwest Portland, Oregon.
 7:30 P. M. - Another work party is scheduled to complete the painting of the G. S. O. C. Library cabinets and shelves. Other worthwhile projects will be started to improve the usability of this fine collection. Plan now to contribute your time and talents. For information and directions telephone Mr. or Mrs. Murray R. Miller at 656-6724.
- December 25 Friday The regular lecture meeting will not be held due to the holiday.
 Merry Christmas.

ADVANCE CALENDAR FOR JANUARY 1965

- Every Thursday LUNCHEON - As usual at the Y. M. C. A. (For details see calendar for December 1964.)
- January 8 Friday LECTURE - Auditorium of Public Service Building (second floor) 920 S. W. 6th Avenue (across the street from the Hilton Hotel)
 Mr. William Johnson of the Soil Conservation Service will present an illustrated talk on "Soils".
 FIELD TRIP - (tentative) Private car caravan down the Columbia to Rainier, Oregon. Date, time, and place to be announced. Itinerary to include visit to Sam Mercer fossil collection. Trip Leader is Miss Margaret L. Steere.

NEWS OF MEMBERS

By Rowena Hoven

DICK FAGAN, associate editor of the Oregon Journal and well known for his "Mill Ends" column, was one of the staff honored at the paper's recent Ten Year Club banquet. Dick was recognized for his 25 years of service.

At this late date we have learned why the DELANOS did not participate in some of the Society's summer activities. Leonard was busy photographing over 4,000 square miles of the Klamath and Modoc National Forests in southern Oregon and northern California. The area extended to Mt. Shasta and included part of the Trinity Alps. Leonard describes it as a "pretty rough area", but very interesting geologically.

LEO SIMON displayed another talent this fall when he served as auctioneer at the auction held by the Men's Garden Club of Portland. It is rumored that he sold everything that was put "on the block". Those in attendance probably received a few bonus items in the form of interesting information concerning botany, photography, geology, etc.

BOB WILBUR has returned from his travels with a word of advice for other travelers, namely: "Be Careful". One evening he stayed at a hacienda near Uxmal in Yucatan. Naturally he wandered through the garden to inspect the geological formations. Shortly thereafter a 6-foot boa constrictor was discovered in the same garden, following Bob's foot prints. We doubt that the boa's interests were geological, however.

After much urging, CLARA BARTHOLOMAY has volunteered to spend the Christmas season in Mexico City so that she can visit with MARJORIE FESSENDEN and bring us news of her adventures. They plan to make a special study of the precious stones in that area and also to explore some of the archaeological sites. Don't forget to take your g-pick, Clara.

WILLIAM M. FREER, Editor of the GSOC Newsletter, underwent surgery during the early part of November. By now we hope he is over convalescence and on his feet again.

 NORRIS B. STONE
 1888 - 1964

Norris B. Stone, past President and Fellow of this Society, passed away November 13, 1964, following an illness of several months.

Many of our older members will recall and be grateful for the unique and imaginative personality that Norris brought to the Society where he served for many years as triplader, board member, and finally, during the year 1952, as an outstanding president. We remember with nostalgia the most enjoyable and scientifically rewarding three day trip he arranged to the Hood Canal area in Washington, that ended with a huge Indian style salmon bake -- another trip, a jaunt of several days into the Mitchell-Painted Desert area, was a masterpiece of planning and geologic illumination.

Born in Topeka, Kansas, his parents moved to St. Joseph, Missouri, when he was two where he spent his school years and early manhood. He was connected with Swift & Company for many years, finally in the 1920's going in business for himself in the Northwest. He joined the Geological Society in the middle 1940's and he and his wife, Clara, opened their home in Glenmorrie at Lake Oswego to the Society for many useful and enjoyable gatherings. To those of us who knew him well, the memory of our association with him will be a bright spot in our GSOC experiences.

Jane Erickson

* * * * *

EDITOR'S NOTE

In the September issue of the NEWSLETTER we published an article entitled "Zeolites and the Micromounter" by John Mihelcic, an accomplished mineralogist who has spoken to us several times at Friday evening lectures, and who, as you know, if you have read the masthead lately, is the Assistant Editor of the Newsletter. In this issue we have the pleasure of giving you the following informative article on mica, written for us by his wife, Lillian, an almost equally accomplished mineralogist.

MICA

by E. Lillian Mihelcic

Sparks emanating from lightning flashes and then being preserved in the ground became mica, or at least so imagined the early Hindu writers. Mica has been associated with India from time immemorial, and its early uses seemed to have been confined to medicines, ornaments and vestures for idols, decorations, glazing or transparent medium and painting bases.

The history of the mining of mica in India goes back to about 2,000 years B. C. while the modern mining of mica may be placed in the first quarter of the last century.

The rapid development of the electrical industry in the United States toward the end of the century saw the growth of a demand for mica as an insulator for electric and heating devices. India, Canada and the United States, having the best known deposits of mica, felt the first impact. New Hampshire, North Carolina, and to a lesser degree South Carolina and Georgia have extensive deposits. The first two states produce about 90% of the country's output. However, mica deposits in many states are being worked. Sheets up to ten inches square have been produced near Idaho Springs, Colorado. The Ruggles mine in New Hampshire is famous the world over -- it started in 1803.

Canadian mines have produced considerable mica, and one crystal in the Lacey mine near Sydenham, Ontario was 9 feet in diameter. Brazil is an important producer, Minas Geraes being the chief area.

The tremendous amount of mica in India makes it a potential leader in all forms of mica -- it now produces the greatest amount of sheet mica. 80% of this comes from the Bihar district and most of the remainder from Nellore. Leadership in this field is due to the quality of the ruby mica and to the great manual dexterity of the natives who split the mica with sickles.

Mica from India makes dramatic transparencies due to the hematite inclusions that tend to arrange themselves in a reticulated pattern. Somewhat similar patterns are obtained in the micas from the eastern United States localities, as well as the garnet inclusions in the micas from the Spruce Pines, North Carolina area.

The mica groups in minerals contain a large number of members, but they have one characteristic - a perfect cleavage. The two types that are known as the "micas of commerce" are muscovite and phlogopite, because they are available in abundance and in commercial size and quality.

Chrome mica, or fuchsite, makes a nice cabinet specimen, having a schistose structure and a beautiful emerald green color. Many of us have specimens of rose muscovite mica from the Harding mine in New Mexico. These are unusually attractive.

Near Pala, California, may be found some lepidolite loaded with small gemmy tourmaline crystals. These make specimens well worth having.

Artificial mica has been produced in the laboratories at the Department of Mines and it promises many industrial applications due to its freedom from minerals that reduces the electrical insulation value.

* * * * *

OREGON PORTLAND CEMENT

Mr. Melvin F. Munch, Superintendent of the Oregon Portland Cement Company at Oswego, gave us the Friday, October 23rd, Library lecture on the product of his company, and told us how it is made. This lecture was one of the continuing series on "Man and His Minerals."

Besides the plant in Oswego, the Company also owns and operates another one at Lime, Oregon, using limestone from a quarry close by. The Oswego plant, because of high railroad freight rates, is barging its limestone down from British Columbia.

With a diagram of the process, Mr. Munch told us how the limestone is reduced in a hammer mill to the right size for processing in ball mills and burned in giant revolving kilns. Better yet, he told us, he would show it all to us if we came out to the plant the next morning on the regular October field trip, which made it a continuing lecture in continuing series of lectures, and we are much indebted to Mr. Munch for an excellent presentation of an important local industry.

William M. Freer

NOTE: The diagram mentioned above has been redrawn by Bob Anderson, art advisor for the Society, and is reproduced on the following page (89). Editor

GSOC TOURS OREGON PORTLAND CEMENT PLANT

Most of you have worked with cement at one time or another and are well acquainted with what it looks like in the bag, but if you were standing on a certain little island in British Columbia or on a Burnt River cliff near Lime, Oregon, I wonder if you would recognize it.

On Saturday, October 24th, eighteen GSOCers toured the Oregon Portland Cement Company located at Lake Oswego. Mr. Munch, the plant superintendent, led the tour, which followed the whole plant operation, beginning with Burnt River schist and British Columbia limestone and ending with cement being loaded into bulk common carriers. It was fascinating to view the tremendous equipment used in the plant operation. Most of the limestone is brought to the plant by barge from British Columbia. Rock coming in by rail is dumped by the carload into a pit and fed by conveyor into the crusher. The crusher is a monstrous hammer-type affair where huge steel hammers literally shatter the rock into particles of 3/4-inch or less. Mineral ingredients then pass through many processes (see flow chart) until the end product is accomplished.

The plant itself covers a large area and is a combination of old and new construction, ranging from 1916 to the present.

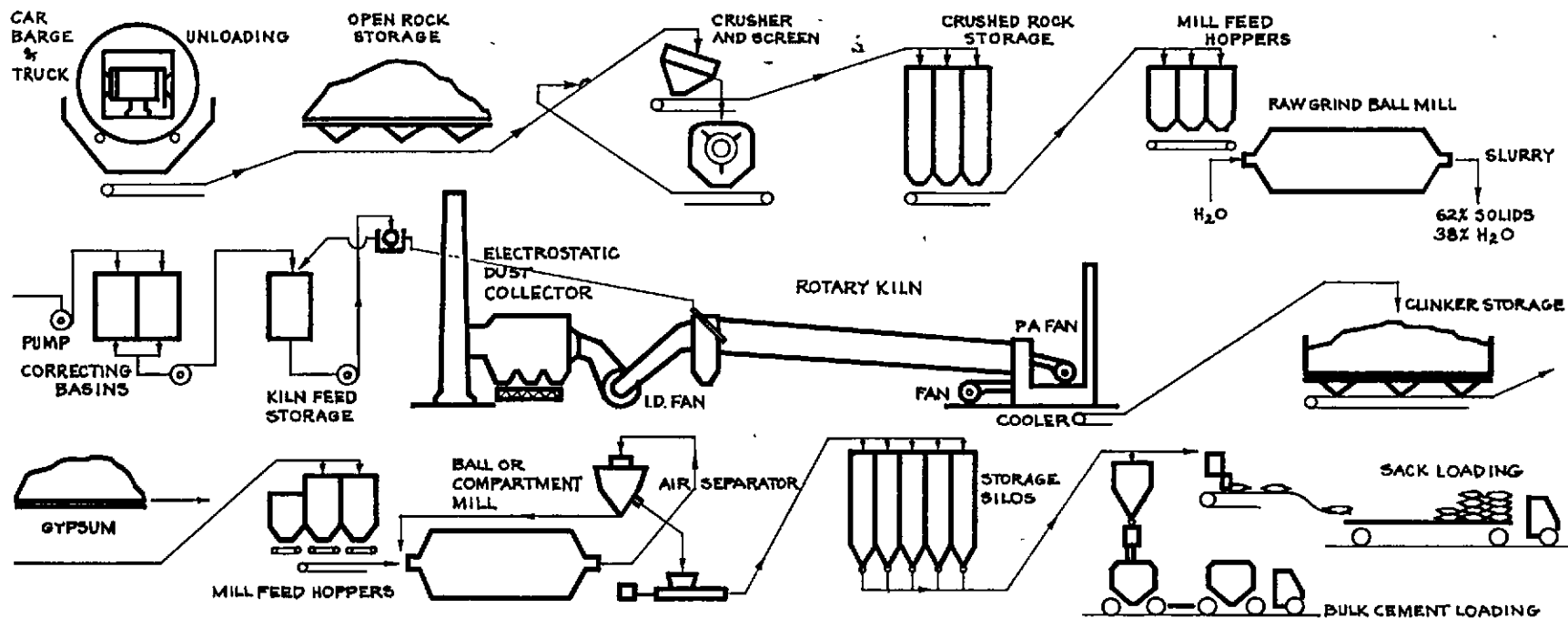
It is surprising to note the lack of dust in the air. There is some, of course, but many huge dust collectors located throughout the plant area remove most of the dust. Electrostatic precipitators collect most of the solids from the stacks. These reclaimed solids then become a by-product -- for instance, lime is sold to local farmers for agricultural use.

The tour ended in the testing laboratory--a most important part of the plant. Here we learned that constant testing is conducted--not only on the cement produced but for new methods and processes.

It was a most interesting tour and Mr. Munch did a nice job in explaining plant operations. This area should be proud to have such a fine plant, designed to produce a top grade cement primarily for local use. The plant employs 125 personnel.

-- Bob Waiste

OREGON PORTLAND CEMENT COMPANY GENERAL FLOW DIAGRAM LAKE OSWEGO, OREGON PLANT



SOCIETY HOSTS CONCRETE EXPERT

The latest program in the current series of lectures on Man and His Minerals was offered Friday evening, November 27th, when Mr. Wilbur Roush presented his theme and slides on Sand and Gravel. Despite the holiday vacation and inclement weather a good turnout was in evidence.

Mr. Roush as chief of the concrete control section of the Portland district of the U. S. Army Corps of Engineers, was well qualified in his subject having spent thirty-one years in the field. He has worked on most of the dams of the West from the Hoover Dam and Grand Coulee to his present assignment with the Green Peter project on the McKenzie. In addition he has served in Alaska and in Morocco and in his lecture cited changing conditions in source and quality of materials in each project whether at home or abroad.

The speaker brought out that sand and gravel must not be lumped into a constant or average commodity but showed that exhaustive tests by the Engineers determined the abilities of proposed materials to stand up under wear and tear as in a roadway or under the erosion of running water or freezing and thawing in the many pieces of construction. He offered a test specimen that had undergone three hundred subjections to the freezing and thawing test and showed the results of such action. He also demonstrated silica sands from Illinois and compared them with local sands from volcanic sources.

Citing a ratio of 10% usage of sand and gravel as the nation's average in mineral production, Mr. Roush said that Oregon's 62% showed the importance of this commodity in the mineral wealth of the state. He pointed out that Ralph Mason's article in the Ore Bin of September '64 showed that every county in the state participated in this development of the State's economy.

Projected slides showed the beginnings of the big engineering project of Green Peter Dam, the source, transportation, grading and mixing of the aggregate and final disposition in the concrete structure.

Mr. Roush mentioned that often a valuable source of sand and gravel for industrial use is located adjacent to or even in the boundaries of metropolitan centers which were steadily enveloping the valuable resource. He recommended that city planning take cognizance of this condition and move to reserve this important mineral before it is lost under a booming housing development.

C. T. L. Murphy

* * * * *

NEW FOSSIL FOUND IN OREGON

SAM MERCER of Rainier, Oregon, 19-year old student of paleontology at Longview (Wash.) College, has found a new species of small crustacean fossil in the Vernonia area. It has been identified by Dr. H. K. Brooks of the Department of Geology at the University of Florida as the remains of isopods. He stated in his letter to Mr. Mercer, "No other fossils have been described from the United States ... you are familiar with them as "sow bugs", "pill bugs" and "sea roaches" ... The new species will be named "Merceri."

Mr. Mercer has been collecting fossils since he was eleven years old and has over 900 specimens in his "Museum", formerly his bedroom.

MISS MARGARET STEERE, geologist with our State of Oregon Department of Geology & Mineral Industries, after seeing the new fossil and his museum, wrote him, "Your whole collection is really outstanding and I think it should be brought to the attention of people interested in this subject." She places the new fossil in the Late Oligocene-Early Miocene epochs.

All of which proves that it is often the amateur geologist who makes a spectacular find. See the Oregonian of October 18, 1964.

* * * * *

HANDLING MINERAL PRODUCTS THROUGH THE PORT OF PORTLAND

Excerpts from a talk presented to
the Society on 13 November 1964
by Mr. Fritz Timmen, Director of Public Relations
of the Portland Dock Commission

The fact that for five of the past six years Portland Harbor has led the entire Pacific Coast of the United States in the total volume of dry cargo tonnage exported and imported has not been brought about by fate or chance. It has occurred because of an aggressive effort to attract cargoes through sales, through technical proficiency in handling, and through the providing of the machines and men to perform in response to each customer's needs.

A large amount of the tonnages (particularly those on the import side of the ledger) which have brought us to this position of leadership are in commodities directly within the purview of you who are interested in metals and minerals.

These are concentrates and ores of lead and zinc, of sulphur and alumina, of limestone and cement, industrial chemicals, salt and petroleum. These are the bulk imports brought into this port as raw materials for our Pacific Northwest economy.

On the export side, our single largest outbound commodity is grain, followed closely by logs and lumber. These also, in the strict sense of the term, are raw materials, the one for human consumption, the other for the needs of the construction industry wherever in the world they are destined.

We are a port, also, which handles much general cargo... the everyday consumer items like imported automobiles, transistor radios and electronics gear, coffee and rubber, and similar things you'll find in your supermarket, hardware store, or department emporium.

I propose to comment on the handling of bulk materials in this port and particularly to those which have a direct relationship to your interests.

During 1963, this harbor handled 792,861 tons of minerals in one form or another. In addition, well over 6,500,000 tons of petroleum products, which can also be placed in the same classification, were imported from domestic sources. Since we regard each one of these tons as bringing \$3.00 in earnings to our community, the economic impact of this portion alone of our maritime commerce was worth \$21.8 million.

Our movements of minerals cover a wide range of commodities. We exported copper and nickel bars and ingots, aluminum and iron and steel products. We imported limestone, ferromanganese, lead and silver ore, zinc concentrates, crude salt, zircon sand, bauxite, and marble. In quantity, tonnage ranged from 237 tons of the last-named item to 362,458 tons of limestone.

Little of the total volume of this inbound trade is destined for Portland. We are a distribution center for a large area of the Northwestern United States. Our truck, rail and barge network reaches well past the Rocky Mountains. For example, almost all of our lead and zinc ores and concentrates are consigned to smelters in northern Idaho or western Montana. Alumina does not move quite so far - upriver by rail some 85 miles to a reduction plant at The Dalles. Zircon sand is used locally, as is crude salt, ferromanganese, and limestone.

But these raw materials are making only a brief stop here since after they are processed the end product then moves on into the market either domestically or back across our docks for export abroad.

We have developed in this port certain techniques for materials handling which, while not unique by any stretch of the imagination, still are efficient and rapid. The costs of transportation play a great part in the ability of a businessman to be competitive in the

Handling Mineral Products through the Port of Portland - cont'd.

market. It is the responsibility of this, or any, port to do all possible to reduce those costs. And this also makes the port competitive, since tonnage will move through the harbor that can demonstrate its ability to save a dollar for the customer.

One of our most efficient tools is a gigantic unloading tower located at Terminal No. 4, where we have centered most of our bulk handling capacity. This crane towers 130 feet into the air. It can discharge such dry bulks as ores, concentrates, and rock at a maximum rate under ideal digging conditions of 900 tons an hour. The bucket takes a 13-ton bite. The tower moves along 585 feet of track. . . . the full length of a vessel. . . . and dumps either into rail cars or trucks or into stock piles. It also can be adapted to unload any commodity through a system of belts from the ship into barges should the ultimate destination be one of our upriver ports.

Through recent adaptations, we also have added to the flexibility of this crane. A hook, attached in place of the bucket, permits it to handle other cargoes such as vans, logs, or slingloads.

Our original installation of heavy lifting equipment at this terminal was in 1955. These were two gantry-type cranes with lifting capacity of about 25 tons. With these we began our invasion of the bulk-handling market and grew from a first year's import of less than 6,000 tons of ores and concentrates to the present volume of almost 800,000 tons. Since the installation of our giant, these cranes have been used to discharge small lots of ores or to load out the nearly 120,000 tons of scrap we export annually.

Although vessel construction is changing and the specially-built ore carrier more and more often calls in the harbor, a substantial amount of our bulk imports still come in general-cargo type vessels. The clean-up operation requires us to lower tractors into the hold to push the commodity into the square of the hatch so the bucket can readily pick it up. This is a necessary part of the operation, but it does tend to reduce somewhat the rate of discharge we can obtain in free digging conditions.

Our cranes are extremely versatile. We have adapted them to the loading of logs and they are capable of reaching across a ship to pick up 25 ton bundles and deposit them abroad with ease.

The volume of this business from Northwest ports to Japan has grown tremendously within the past couple of years and almost every coastal port in Oregon, Washington, and British Columbia is enjoying this considerable economic shot in the arm. We here in Portland are tooling up and just recently placed in operation the first of four 65-ton gantry cranes which will be used for the log operation as well as for other heavy lifts.

Substantial amounts of bulk minerals are exported through this harbor. A typical example is petroleum coke. Such export commodities as this are delivered directly into a vessel's holds through a 350-ton an hour conveyor system. We are able to load into vessels from stockpile, from rail cars, or from dock-side bunkers with capacity of 10,000 tons of storage.

Substantial amounts of Wyoming-originated sulphur arrive at this dock in rail cars for transfer to river barge. Although sulphur is barged only a relatively short distance from Portland to paper mills some 15 or 20 miles away, Columbia River barge transportation plays a major part in tonnage movements. At present, barge navigation is possible some 300 miles from Portland on the Columbia and Snake Rivers and almost 60 miles on the Willamette.

Principal commodities moved in this manner are grains downstream and petroleum, bulk cement, construction materials, and similar bulk products upstream.

For more than a century, Portland and other lower Columbia River ports have dominated the grain trade of the Pacific Northwest. During 1963 alone, more than 4,600,000 tons of grain products were exported to Asian and European markets. More than 50 per cent of this is received at deep-water elevators by rail. About 25 per cent is barge haul, and the remainder arrives by truck.

Handling Mineral Products through the Port of Portland - cont'd.

Since grain flows, like many bulks and all liquids, we handle it through belt conveyors. From elevator storage we here at Portland can deliver to vessels at the rate of 1200 tons an hour. Six spouts can pour simultaneously, and an average 12,000 ton ship can be loaded in a single shift.

We attempt to approach all problems of cargo handling with imagination, striving to reduce costs and to speed ship turn-around. Thus, working closely with shippers, we have developed container movements of such commodities as dried peas, alfalfa pellets, lentils, and dried beans. Where these once moved in 100-pound sacks, we now are handling them in 10-ton boxes, loaded at the inland point of origin and trucked or railed directly to ship-side.

Similarly, Matson Navigation Company is operating specially-outfitted container ships from our docks in their Hawaiian trade. Each of these vans holding 25 tons of general cargo, is loaded off-dock, trucked to the vessel and placed aboard by gantry cranes. This type of movement will become more prevalent as a means of reducing handling and transportation costs, cutting ship turn-around time, and effecting savings both for the vessel operator and the shipper.

In all aspects, our planning and construction is directed at staying ahead of the needs of the trade. In planning for the future we try to keep our crystal-ball gazing as clear as our competitors'. At the least, we can hope to get our fair share of the business. At the best, we'll get it all.

#

NOVEMBER LIBRARY NIGHT

A goodly number of GSOC'ers turned out for Library Night and after an hour of browsing and chatting the members were called to order by the Chairman, Murray Miller. He spoke of the necessity for weeding out magazines and material that is not pertinent to the interest of our organization in order to make room for new books. This entails a great deal of work, which is slowly being accomplished. Periodicals are being placed in the new punchless binders just secured for the society by the President. In order to keep the library vital and up-to-date the Executive Committee has appropriated money for the purchase of a few new books each year.

George Lewis, Jr. showed some of his beautiful, large 2-1/4 inch color slides which he and Mrs. Lewis took this summer at the Craters of the Moon and Red Fish Lake in the Sawtooths of Idaho, as well as Yellowstone Park and the Tetons, explaining some of the interesting formations.

Mrs. Stauffer graciously presided over the delicious tidbits she had prepared and served with coffee, tea, and cider. She and Robert Wilbur had a merry exchange of wits in "foreign tongues".

With a beautiful full moon riding high in the heavens to guide us home, this all added up to a very pleasant evening.

Jennie Walters

* * * * *

Certificate of Appreciation

may it be known that

_____ was the guest speaker at the

Geological Society of the Oregon Country

on _____ 19_____

as an expression of appreciation for courtesies extended,
we hereby present this certificate.

Program Chairman

President

The Certificate of Appreciation reproduced above was designed by Mr. Robert Boyd Anderson. Art Advisor to the Society. The Certificate was requested by G.S. O. C. President Irv Ewen, who felt that this would be an appropriate way for the Society to express appreciation to guest speakers.

Not shown in the reproduction is the official seal of the Society which will be embossed in gold foil and affixed to the Certificate between the signatures of the President and the Program Chairman.

* * * * *

DR. WILLIAM ORNDUFF

We are saddened to report the recent death of DR. WILLIAM ORNDUFF, an outstanding figure in the medical profession. Because of his numerous activities we were not privileged to know him well. When he did attend meetings or join us on a field trip we were impressed with his happy personality and friendliness.

He was particularly interested in and a hard worker for conservation. In his memory the Bill Crnduff Fund has been set up to aid college students in this field. Anyone wishing to do so should make their contribution to "Bill Ornduff-CMSI" and mail it to the Oregon Museum of Science and Industry, 4015 SW Canyon Road, Portland, Ore.

Our sympathy is extended to his family.

* * * * *

MEMBERSHIP ROSTER

Cumulative list of changes
since 1 August 1964

name	street address	city, state, and zip No.	telephone
<u>NEW MEMBERS</u>			
GOUCHER, Miss Sharon	18506 S. W. Wilmot Road	Jennings Lodge, Oregon - _____	654-5949
HEINKEL, Mr. & Mrs. Charles E.	265 S. W. Birdshell Road	Portland, Oregon - 97219	636-4634
MC KEE, Mr. & Mrs. Lew	4703 S. E. Madison Street	Portland, Oregon - 97215	235-6545
ROBERTSON, Mrs. Bertha C.	3405 N. E. Cadet Avenue	Portland, Oregon - 97220	254-7106
SLOCUM, Mr. & Mrs. Robert G.	11572 S. W. Riverwood Rd.	Portland, Oregon - 97219	636-3514
SPAULDING, Miss Jacqueline	1411 S. W. Davenport	Portland, Oregon - 972__	223-7495
STRUCHEN, Mrs. Montana	2050 S. W. 78th Avenue	Portland, Oregon - 97225	292-4863
WANKA, Miss Hildegard	2149 N. W. Everett Street	Portland, Oregon - 97210	228-4232
ZAPF, Miss Karla A.	4065 N. Longview Avenue	Portland, Oregon - 972__	284-6262
<u>ADDRESS CHANGE</u>			
ALLEN, Dr. & Mrs. John Eliot	1162 S. E. 58th Avenue	Portland, Oregon - 97215	236-1558
CHRISS, Mr. Dennis L.	835 N. E. 72nd Avenue	Portland, Oregon - 97213	253-3457
DCDSON, Mr. & Mrs. Guy R.	243 Liliuokalani No. 201	Honolulu, Hawaii - 96815	
FAGAN, Mr. & Mrs. Mike	6106 1/4 N. Burrage	Portland, Oregon - 97217	289-0051
FREED, Miss Hilda W.	1127 American Bank Bldg.	Portland, Oregon - 97205	222-1658
HODGE, Dr. Edwin T.	Texas Technical College Post Office Box 4109	Lubbock, Texas - 79409	
LARSON, Mr. & Mrs. Dennis	Lost Creek Road	Dexter, Oregon - 97431	
C'BRIEN, Mr William C.	18101 S. E. Oatfield Rd.	Gladstone, Oregon - 97027	656-8027
OEKERMAN, Mr. & Mrs. William W.	3927 N. E. Hoyt Street	Portland, Oregon - 97232	236-7473
REIMERS, Mr. Fred	636 N. W. 7th	Pendleton, Oregon - 97801	

MEMBERSHIP ROSTER

name	street address	city, state, and zip No.	telephone
<u>ADDRESS CHANGE</u>			
SCHULL, Mr. & Mrs. Bert R.	418 North Holland	Portland, Oregon - 97217	285-2755
SMITH, Mrs. Ben F.	210 Euclid Avenue	Long Beach, California	
TRAVIS, Mr. & Mrs. H. F.	1910 N. E. 66th Avenue	Portland, Oregon - 97213	252-8888

TELEPHONE NUMBER CHANGES

OWEN, Mr. Hugh 227-5847

RESIGNATIONS

JOHNSCN, Mrs. Wallace

DECEASED

ALBERTSON, Maurice Merton
 JONES, Doris Wolcott
 CRNDUFF, Dr. William W.
 STONE, Norris B., Sr.

INFORMATION FOR DECEMBER FIELD TRIP

The December field trip will take members to see the famous Rice collection of minerals at their residence on Sunset Hi-Way. Situated a couple of miles west of the rail-road over-pass on the hi-way, the Rice home is a fine ranch style brick structure in a grove of firs on the north side of the road. Here Mr. and Mrs. Richard Rice hosted our last visit on February of 1962, a well-remembered occasion for all the Society.

Mr. and Mrs. Rice have been mineral enthusiasts for twenty-five years and their travels have given them opportunity to add rare specimens of petrology to their outstanding collection. Handsomely displayed in illuminated glass cases, the crystals are presented in the best position for study and identification. It is recommended that members bring their rock books and compare the pictures and description with the actual specimens. Such an opportunity is of top value to the student as all of us are. Note also on the outside the large samples of petrified wood and on the inside a fine collection of Swiss music boxes.

The viewing will be held at 2:00 p. m. on Sunday, December 13.

C. T. L. Murphy

SUBJECT AND AUTHOR INDEX*

to the

GEOLOGICAL NEWS LETTER
Compiled by Margaret L. Steere**

- Adams, Mrs. W. Claude - Pacific University receives Dr. Condon fossils: p. 19-20
- Albertson, Maurice Merton, by J. R. Rentsch: p. 76
- Allen, Dr. J. E. - Northwest Pakistan, the land of the Pathon: p. 3-4
- Annual Banquet, announcement: p. 12-13
- Banquet co-chairman's thank you, by Paul and May Dunn: p. 26; 28
- Photos: p. 27
- Program: following page 28
- The 29th Annual Banquet, by Wm. M. Freer: p. 25-26
- Annual picnic, announcement: p. 52; photographs: p. 62
- Bartholomay, Clara L. - Homo sapien returns to Ape Cave: p. 39-41
- Books every member should have: p. 33
- Busy outfit: p. 60
- Castle Rock - Beacon Rock: p. 83
- Castle Rock, A Plea for (poem), by Bert Geer: p. 84
- Certificate of Appreciation: p. 94
- Delano, Leonard H. - The High Cascades: p. 31-33
- Dunn, Paul and May - Banquet Co-chairmen's thank you: p. 36; p. 28 /
- Erickson, Jane - Norris B. Stone (1888-1964): p. 86
- Field trips
- Ape Cave, trip described by Clara Bartholomay: p. 39-41
- Cape Arago, by C. T. L. Murphy: p. 35
- John Day Dam, general information: p. 14; trip described by Margaret Howell: p. 21
- Lolo Pass, by C. T. L. Murphy: p. 46 and p. 55
- Molalla River trip, by Rowena Hoven: p. 34-35
- Oregon Portland Cement Plant, by Bob Waiste: p. 88
- Painted Hills, general info., by C. T. L. Murphy, p. 41; trip described by Shirley O'dell:
p. 47-48
- Portland Hills tunnel (Ground Hog Day for GSOC), by Albert Kenney: p. 43-44
- President's Annual Campout, general info., by C. T. L. Murphy: p. 56;
trip described by Fred E. Miller: p. 67-72
- Rice mineral collection, by C. T. L. Murphy: p. 96
- Sauvies Island, by Emory Strong: p. 5-6

* For AUTHOR INDEX see underlined names

** Geologist, State of Oregon, Department of Geology and Mineral Industries

P. 2 SUBJECT AND AUTHOR INDEX to the GEOLOGICAL NEWS LETTER

Field trips - continued

Train Trip, Banks-Vernonia (All Aboard), by Emily Moltzner: p. 49; The Sunset Route, by Wm. M. Freer: p. 61

Wind River - Chelatchie Prairie trip, by Irma Sullivan: p. 81-82

Yamhill area, general info.: p. 8; trip described by Hugh Owen: p. 11

Freer, Wm. M. - Earthquake, The (lecture by Leverett Richards): p. 50

Good man in the Bad Lands (lecture by Hugh Owen): p. 42

Inventory of 1963: p. 17-18

Man and his minerals (lecture by R. S. Mason): p. 33

News of members: p. 53

Oregon Portland Cement (lecture by M. F. Munch): p. 88

Sunset Route, The: p. 61

This land of yours: p. 83

Twenty-ninth Annual Banquet: p. 25-26

Voice of Lon Hancock: p. 36

West Pakistan (lecture by Hal Kelly): p. 54

Geer, Bert - Plea for Castle Rock (poem): p. 84

Geographic names of the Bohemia area, by Emily Moltzner: p. 72

Geological trip log (Banks-Vernonia train trip): p. 56

Ghost towns (poem), by Verna Fuller Young: p. 33

Gilchrist, Dr. Francis G. - Leaves from Oregon's past: p. 77-79

Gilliam Elizabeth - Luncheon notes p. 20; p. 30

Social Committee report: p. 22

GSOC visits State Department of Geology: p. 6

High Cascades, by Leonard Delano: p. 31-33

Hodge, Dr. E. T., in Texas: p. 80

Hoven, Rowena - Molalla River field trip: p. 34-35

News of members: p. 66; p. 80; p. 86

Howell, Dr. Paul - Erlarken die Schlieren (lecture by Broderon): p. 50

Howell, Margaret - John Day Dam field trip: p. 21

Inventory of 1963, by William M. Freer: p. 17-18

Jones, Doris Wolcott, by Viola L. Oberson: p. 58

Kenney, Albert R. - Ground Hog Day for GSOC: p. 43-44

Leaves from Oregon's past, by Dr. F. G. Gilchrist (illustrated): p. 77-79

Lectures

Alaska earthquake (Leverett Richards), by Wm. M. Freer: p. 50

Carborundum as a mineral of man (Laurence Sandstrom), by John Mihelcic: p. 41

Lectures - cont'd.

- Erklarcken die Schlieren (R. A. Broderson), by Dr. Paul Howell: p. 50
Good man in the Bad Lands (Hugh Owen), by Wm. M. Freer: p. 42
Hancock, The voice of Lon (Jim Anderson), by Wm. M. Freer: p. 36
Handling mineral products through Port of Portland, excerpts from talk by
Fritz Timmen: p. 91-93
Man and his minerals (R. S. Mason), by Wm. M. Freer: p. 33
Oregon Portland Cement Co. (M. F. Munch), by Wm. M. Freer: p. 88
Sand and gravel for concrete (Wilbur Roush), by C. T. L. Murphy: p. 90
This land is yours (Nature Conservancy program), by Wm. M. Freer: p. 83
West Pakistan (Hal Kelly), by Wm. M. Freer: p. 54

Lewis and Clark Expedition: p. 74

Library night, November, by Jennie Walters: p. 93

Luncheon notes, by Elizabeth Gilliam: p. 20; p. 30

Madras, Third annual train trip to, by Emily Moltzner: p. 38

Maps and charts

Northwest Pakistan: p. 4

Oregon Portland Cement Co. flow diagram: p. 89

President's Annual Campout (Bohemia area): p. 71

West Portland Hills freeway and tunnel: p. 43

Membership roster: following August issue; cumulative changes: p. 95-96

Mica, by E. Lillian Mihelcic: p. 87

Mihelcic, E. Lillian - Mica: p. 87

Mihelcic, John F. - Carborundum as a mineral of man: p. 41

Zeolites and the micromounter: p. 59-60

Miller, Fred E. - President's Annual Campout: p. 67-72

Modern day dilemma: p. 60

Moltzner, Emily - All aboard (Banks-Vernonia train trip): p. 49

Geographic names of the Bohemia area: p. 72

How it came about: p. 6

News of members: p. 2, 6, 10, 16, 20, 22

Third annual train trip to Madras: p. 38

Train trippers study geology: p. 73

Murphy, C. T. L. - Field trip information:

Cape Arago: p. 35; Painted Hills: p. 41; Lolo Pass: p. 46;

President's Annual Campout: p. 56; Rice Mineral Collection: p. 96

Lolo Pass attracts voyagers: p. 55

Society hosts concrete expert: p. 90

New fossil found in Oregon (Isopod): p. 90

New publication (new edition of Geol. of Oregon): p. 52

P. 4 SUBJECT AND AUTHOR INDEX to the GEOLOGICAL NEWS LETTER

News of members: p. 24

Reports by Wm. M. Freer: p. 53

Reports by Emily Moltzner: p. 2, 10, 16, 20, 22

Reports by Rowena Hoven: p. 66, 80, 86

Nominating committee announces slate: p. 8

Oberson, Viola L. - Doris Wolcott Jones: p. 58

O'Dell, Shirley - Painted Hills trip: p. 47-48

Ornduff, Dr. William: p. 94

Owén, Hugh - Field trip to Yamhill area: p. 11

Pacific University receives gift of Dr. Condon fossils, by Mrs. W. C. Adams: p. 19-20

Pakistan, Northwest, land of Pathans, by Dr. J. E. Allen: p. 3-4

Photographs

Annual Banquet: p. 27

Annual Picnic: p. 62

Banks-Vernonia train trip: p. 62

Geophysical provinces (aerial views): following p. 28

GSOC visit to State Department of Geology: p. 6

President's Annual Campout: p. 68-69

President's Annual Campout, by Fred E. Miller: p. 67-72

Leaves from Oregon's past (Rujada flora seen on Campout), by F. G. Gilchrist: p. 77-79

Rentsch, J. R. - Maurice Merton Albertson: p. 76

Social Committee report, by Elizabeth Gilliam: p. 22

Stone, Norris B. (188-1964), by Jane Erickson: p. 86

Strong, Emory - Field trip to Sauvies Island: p. 5-6

Sullivan, Irma - Wind River - Chelatchie Prairie field trip: p. 81-82

Train trippers study geology (Columbia River), by Emily Moltzner: p. 73

Waiste, Bob - GSOC tours Oregon Portland Cement Co. plant: p. 88

Walters, Jennie - November Library Night: p. 93

Young, Verna Fuller - Ghost towns (poem): p. 33

Zeolites and the micromounter, by John Mihelcic: p. 59-60