GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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GEOLOGICAL NEWS-LETTER
Official Publication of the
Geological Society of the Oregon Country
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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

Officers of Executive Board, 1951 - 1952

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Bus. Mgr.:	Mr. Raymond L. Baldwin	4804 S.W. Laurelwood Drive	1	CH 1452

SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1951 - 1952

EVENING MEETINGS: Formal lectures or informal round table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85¢ per plate.

PUBLICATION: The GEOLOGICAL NEWS LETTER, issued once each month, is the official publication of the Society.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should be made payable to the Society. Applicants for membership should submit an application form, and remittance for dues, to the Secretary.

CALENDAR - JANUARY 1952

January 3 Thursday — Weekly noon luncheon.

January 10 Thursday — Weekly noon luncheon.

January 11 Friday — Regular evening meeting, Library Hall, 8:00 P.M. Our guest speaker will be Mr. Samuel C. Sargent who will describe the geology of The Dalles Dam. Construction of this multimillion-dollar project is scheduled to be started this spring. Mr. Sargent, geologist with the Corps of Engineers, has a detailed personal knowledge of the geological setting, the subsurface structures, and the geological problems involved. No GSOC member can afford to miss this talk.

January 17 Thursday — Weekly noon luncheon.

January 24 Thursday — Weekly noon luncheon.

January 25 Friday — Regular evening meeting, Library Hall, 8:00 P.M. Informal get-together for members. A variety of topics will be considered. Bring a specimen or two for exhibit or discussion.

January 27 Sunday — Field trip to view building stones in Portland structures. Trip leader will be Mr. Earl W. Minar. Assemble at Journal Building at 1:00 P.M. Sunday. We are especially fortunate in having Mr. Minar as leader because of his long experience with these materials. This trip will be a very valuable and interesting one for all GSOC members and guests. Please be ready to leave the assembly point at 1:00 P.M.

January 31 Thursday — Weekly noon luncheon.

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CHANGE OF ADDRESS

Mr. Lloyd L. Ruff, 4931 N.E. Glisan St. Zone 13

* * * * *

DATE FOR 17th ANNUAL BANQUET

Plans for the banquet are shaping up nicely under the chairmanship of Mrs. Wm. Clark. The date has been changed to March 28 because the banquet hall could not be reserved for March 14, as originally hoped.

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OIL IN THE PERSIAN GULF AREA

By
May R. Bushby*

The eyes of all those interested in the production of oil have lately been focused on Iran whose decision to direct her own oil industry has entirely shut off the flow of oil to Great Britain. We ask why there is so much oil in the Persian Gulf area and why it may be produced so easily?

The mountain ranges are made up of massive volcanic rocks. North and West ranges extend to the Himalaya in India and down to Java. They make up one single geological barrier. After these mountain ranges arose, pressure was towards the west. Great masses of rock sank and formed a trough. The trough became an inland lake which filled in later with eroded rock, animal and vegetable matter, etc., to a depth of 6500 feet. It is the deepest deposit of sedimentary matter in the world. The mountains, in sliding for a distance of 68 miles, cracked badly, forming fissures many hundreds of feet long. Much of the rock was broken up into small pieces. Liquid petroleum forced its way into these rocks. Over geological ages, they became full of oil but were enclosed by the great masses of rock overhead.

In our western oil areas, the rock did not crack similarly. Oil is much harder to find, being discovered in only the porous rocks. In 1949 the average production per oil well was 12 barrels per day and the pumping operation is expensive. In the oil wells of the East, all one has to do is to sink a well and the oil starts to flow because there is so much pressure. In Iran, in 1913, one well produced 6,000 barrels a day. And it cost less than one cent to bring the oil to the surface! A dome may be 1,050 feet deep saturated with oil. In 1950, 88 wells produced 215 million barrels of oil. Not one well in Iran or Iraq has ever dried up.

If we look south of this anticline, we see the little kingdom of Kuwait on the Persian Gulf. In 1899 it was part of the Turkish Empire. Russia wanted to block it off. Britain helped to set it up as a protectorate and at that time no one knew it was over an oil field. In 1937 oil was discovered there. In 1946 production started. In 1944 geologists estimated there might be 4 million barrels in this area. In 1947, the estimate had risen to 10½ billion barrels. In 1951 the estimate increased to 14 billion barrels. This oil area is called the Kuwaitee Field.

Farther south are the South Arabian fields. These are being exploited by Americans. In 1950 each well produced an average of 12,600 barrels a day. To recover all of the oil, engineers and geologist are considering pumping salt water under this dome. And new domes are continually being discovered. In 1944 the estimate of oil for this area was 20 billion barrels. The last estimate published was 75 billion barrels.

After the flow of oil from Iran to Britain ceased in 1950, the crude oil business in Arabia was stepped up. This supply of crude oil has already closed the market for Iran's oil and may fatally affect the entire Iran oil market. This, together with the fact that poverty stricken masses in the Persian Gulf area earning from 15 to 20 cents per day are in full control of such vast reserves, and the natural hatred towards so-called "imperialistic" western nations may result in worldshaking events. But the purpose of this short resumé has not been to answer the deeper economical and political questions which arise, but to merely bring to your minds a few figures in the current oil situation.

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*Stenographic abstract of a lecture by Mr. Edwin A. Wright of the State Department, Washington, D.C.

LUNCHEON NOTES

December 13, 1951

May R. Bushby brought photographs taken on the trip to the Lava Cast Forest. She also told of a lecture on oil, and read interesting parts of it which she had reported in shorthand. . . . .R. C. Baldwin had a piece of bark from Newport where it had been buried under 15 feet of earth. He didn't have the exact date of its burial but it was probably longer ago than he could remember. . . . . A. D. Vance had a small pebble that came from the broken sidewalk in front of the City Hall, which he said looked very much like a dreikanter, which Webster says is a pebble, faceted by wind-blown sand. A similar definition is given for the word "Ventifact" which is also known as a "glyptolith" or "rillstone." (A person can easily get in beyond his depth when he starts reading the "unabridged."). . . . .Leo Simon brought a piece of limestone with red lichens growing directly on the rock - a rather unusual phenomenon. . . . .Ada Henley had a copy of Desert magazine, an article in Science News Letter about the earliest skeleton, anda box of cashews about which we were cautioned to say nothing; but, gee whiz! we're so short of copy this month that we are taking a chance incurring the displeasure of a generous contributor by exposing this secret. . . . .There were present Vice President May R. Bushby, Estella Conner, Ada Henley, and Messrs. Baldwin, Bushby, Erickson, Kelham, Schminky, Simon, Stanley, and Vance.

* * * * *

December 20, 1951

Leo Simon occupied the chair at this pre-Christmas luncheon. Table decorations included tiny evergreens which started a discussion as to variety. The argument ended in a draw. . . . .Rudolph Erickson brought a vesicular rock from the Columbia River west of Lady Island at a point just east of the Reynolds aluminum plant. . . . .Bruce Schminky had some very nice specimens of quartz and calcite crystals from the dam site on the North Fork of the Lewis River near Yale, Washington. . . . .Estella Conner competed with Ada Henley in the matter of confectionery. No objections to this rivalry were heard from the men. . . . .Mr. Libbey announced that the Oregon Academy of Science would meet in Eugene on February 20. . . . .Estella Conner caused some surprise and amusement by dashing back of the door when the manager came into the room to collect for the luncheon. It developed that she had hung her purse on the door knob. . . . .There were present, Baldwin, Conner, Elder, Erickson, Henley, Keen, Libbey, Matthews, Schminky, Simon, Stanley, and Vance.

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December 27, 1951

Slippery streets failed to keep our Vice President from attending this meeting, but some of the other faithful members did not risk their necks and hips by trying to navigate the extremely glassy roads and walks. . . . . G. V. Elder had a very old volume, published in 1800, entitled: "Ildegarte, the Queen of Norway." It is a novel, translated from the German, and was one of his mother's books. He also had a fairly large crystal which he brought for identification, but no one could tell him its name. . . . .Leo Simon brought

his large specimen of ammonite which he got at a remarkable bargain on his Canadian trip. . . . .Rudolph Erickson mentioned a large meteorite crater that has been discovered recently in Ungavia, Canada. . . . .There were present Vice President May R. Bushby, Mrs. H. B. Schminky, and Messrs. Bushby, Elder, Erickson, Keen, Kelham, Matthews, Simon, Schminky, Stanley, and Vance, who, by the way, was in a state of high excitement over having discovered some large diamonds at the City Hall on the fingers of some of the attractive young women who toil there. No mink coats, though.

OES

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OLIGOCENE SHALE IN ASTORIA, OREGON

By

R. E. and K. C. Stewart

Recent re-examination of foraminifera from Astoria, Oregon, which were first collected and studied in 1945, has called attention to one assemblage which suggests an upper Oligocene age rather than the Astoria Miocene age which the writers had previously assigned to it.

The main content of this assemblage includes Cyclammina, Martinottiella, Bathysiphon, and several other arenaceous genera, although a number of calcareous genera are also represented.

The shale sample from which these foraminifera were obtained was collected by Dr. E. M. Baldwin and R. E. Stewart in May 1945 from a roadcut along Commercial Street about 100 yards east of 37th Street. An automobile speedometer reading gave 1.6 miles as the distance between this locality and the intersection of 14th and Commercial Streets in Astoria.

Field notes taken by Dr. Baldwin describe this collecting locality as a high cut exposing about 50 feet of black rusty shale in which occur many small round concretions and some lens-like elongate concretions. Strike and dip readings of N. 55° E., 18° SE. were recorded.

An east-west trending syncline has been mapped[1] through Astoria, and the sample here believed to be of upper Oligocene age was taken from the northern flank of this structure where one might logically expect the exposed beds to be older than the Astoria Miocene beds found near the axis in the center of the city.

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[1]Weaver, C. E., Tertiary stratigraphy of western Washington and northwestern Oregon: Washington Univ. (Seattle) Pub. in Geology, vol. 4, pl. 8A, June 1937.

(From The Ore.-Bin, November 1951.)

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BALDWIN SAYS "BIND YOUR NEWS LETTERS"

Business Manager Raymond L. Baldwin has called attention of the members of the Geological Society of the Oregon Country that now is the time for all who want their News Letters bound at the very low price of twenty-five cents a volume. Take out the staples, arrange the pages in consecutive order with the index either first or last as your personal preference dictates, and bring them to a regular meeting of the Society or to a noon luncheon at the Chamber of Commerce.

Mr. Baldwin says that he has several bound volumes of back issues for sale at $2.25 a volume. If you are in need of one or more volumes to complete your set, NOW is the best time to get them. They may all be gone tomorrow.

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MESSAGE FROM DR. EDWIN T. HODGE

The following note sent by Dr. Hodge from South Africa has just been received by my wife and me. It will be of interest to all GSOC members.

> Dear Friends - I send my best wishes to you not only for Christmas but for the whole year. I will soon have been in South Africa and South West Africa three months. I have seen the wierd mountains which are just like those of medieval paintings and which I never believed could exist. They are the result of very ancient rocks that have lived thru arid cycles not only of one period but of several. Here "streams" are mostly "sand drowned" and flow a flood only after the rare torrential rains.
>
> Best wishes,
> Edwin T. Hodge

(FEW)

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BLOND MANDANS

The first white men to reach the headwaters of the Missouri River early in the eighteenth century reported a "white nation" - Indians who reputedly had fair skins, blond or brown hair, long beards, and a civilization with many European likenesses. These were the Mandans, a few of whom still persist, although the tribe was nearly eliminated by a smallpox epidemic more than a century ago.

Although the early reports were doubtless greatly exaggerated in transmission from mouth to mouth to the eastern seaboard, there was enough fact to give them some substance, and the "blond Mandans" have constituted one of the puzzles of American anthropology. It was held at first that they were descendants from Indians and members of the legendary expedition of the Welsh chieftain Madoc in the twelfth century. More recently there have been speculations to the effect that they resulted from admixture into the tribe of survivors of the fourteenth-century Scandinavian expedition of Paul Knutson, which apparently came to grief in northern Minnesota.

Unfortunately, all early eyewitness reports of the blond Mandans apparently are exaggerated. Travelers who visited the tribe in the early nineteenth century also reported exceptionally light Indians; but by this time the phenomenon could be attributed in part to admixture with white trappers and traders who had been in contact with the Mandans for nearly a century.

But the earlier reports remain a challenge. The evidence has just been summed up by Dr. Marshall T. Newman, Smithsonian Institution anthropologist, in the Southwestern Journal of Anthropology. There is a very high improbability, he points out, in the thesis that the supposed blondness was derived either from Madoc's or Knutson's men. In pre-Columbian times the Mandan tribe apparently contained 8,500-15,000 persons. The genes for blondness of a few white men would have been smothered in a short time.

On the other hand, the supposedly peculiar characters may well have arisen among the Indians themselves. They were, in fact, sometimes attributed also to other tribes in the same general region.

Critical analysis of the reports, Newman says, "indicates that some of the presumptively unmixed Mandans were at least as light-skinned as darker Europeans; dark brown rather than black hair and eyes, and fine rather than coarse hair

texture were frequent. . . .Mandan life in earth lodges north of the 45th parallel would not only reduce selection against light skin color, but would also result in less weathering of the skin than among nomadic tribes. The difference would be especially noticeable in winter,which was the season of extended observation by whites in the Mandan villages."

There remains the problem of an alledgedly high cultural development with supposed traces of European influence. Enough now is known, however, to credit these entirely to the Indians themselves. (From Smithsonian Institution, April 27, 1951.)

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AMENDMENTS TO THE SOCIETY BY-LAWS

The following amendments to the By-Laws of the Geological Society of the Oregon Country have been approved by the Executive Committee of the Society, and will be submitted to the members for consideration on the regular annual ballot:

Be it resolved that Article II, Section 2, Paragraph 1, of the By-Laws be amended to read:

> "A Junior Member shall be a person under twenty-one years of age who is interested in and supports the aims and objects of the Society, and who has been recommended by the membership committee."

Be it resolved that Article IV, Section 6, of the By-Laws be amended to read:

> "The Editor of the official publication of the Society shall be nominated and elected at the same time and in the same manner as are the officers of the Society, for a term of one year, but shall not be a member of the Executive Committee."

R.M.Z.

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NOMINEE FOR 1952 EDITOR

Mrs. Rudolph Erickson was selected by the nominating committee as Editor for 1952. Her name will appear on the election ballot scheduled for distribution to members within a few weeks.

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SWAN SONG

There are persistent rumors, coming to the editorial ears from this and that direction, that the News Letter is to have a new editor next year. We are sure this news will be received by shouts of joy, not only by the---shall we say "millions" of---readers, but will be echoed by the present incumbent. (We almost said "present incumberence," and perhaps that word should have been used.)

The new editor? Well, since you've asked, all that we can say is that her name (if Dame Rumor is to be believed) is Jane Erickson, playwright, poet, and photographer par excellence.

There is no hint, so far as we know, that other members of the editorial staff than the white-haired and wrinkled self-styled editor-in-chief will lose their highly remunerative positions.

If plans that are now being considered come to fruition, our News Letter will take its place among the sure 'nuff geological publications of our nation. And we hope that, for once, Rumor is right.

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CALENDAR, FEBRUARY 1952

February 7 Thursday — Weekly noon luncheon

February 8 Friday — Regular evening meeting. Library Hall. Promptly at 8:00 P.M. Joint meeting with the Portland Astronomical Society. The speaker will be Mr. Harry G. Johnson, who will discuss a rocket trip to the moon. A rocket ship model will be on display. GSOC members will remember the excellent talk and display of meteorites presented by Mr. Johnson at the meeting on June 22, 1951. The public is invited.

February 10 Sunday — February field trip. This will be a conducted tour of the Carborundum plant at Vancouver, Washington, for GSOC members. To reach the plant from downtown Vancouver, drive west on 8th Street along the north side of the city park and follow the curvaceous Lower River Road for about 2 miles. The plant is along the south side of the road. Park outside of the gate. The tour is scheduled to start at 2:00 p.m., so plan to be there a little ahead of time. This tour should be of great interest because each member, with very few exceptions, is an actual user of carborundum products. Old clothes are advisable. Cameras are not permitted inside the plant.

February 14 Thursday — Weekly noon luncheon

February 21 Thursday — Weekly noon luncheon

February 22 Friday — **ANNUAL BANQUET** combined with the **ANNUAL BUSINESS MEETING**. 6:30 P.M. Mt. Tabor Presbyterian Church, 5441 S.E. Belmont Street. Tickets may be purchased from Mr. Leo F. Simon, BE 0300, at $1.50 per plate.

February 28 Thursday — Weekly noon luncheon

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A timely talk by our member, Mr. Paul W. Howell, Resident Geologist at Lookout Point Dam, is scheduled for Friday evening, March 14. He will speak on geology of the dam and reservoir.

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ITEMS OF INTEREST

Mrs. Elizabeth Barr was recently called to Burbank, California, by the death of her youngest daughter, Harriet (Mrs. Russell Barth), which occurred on December 18, and was sudden and unexpected. Mrs. Barth is survived by her husband and two children. Mrs. Barr will probably remain in California for some time.

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From the Oregonian: "Shooting for 100," KPOJ at 9:15 p.m., features an objective discussion of alcohol and its effect on the aging by Dr. Arthur C. Jones of the University of Oregon medical school faculty and Berlan Lemon, Oregon Alcoholic Education committee.

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Dr. J. C. Stevens, past president of GSOC and many other organizations, announces a change of name of his engineering firm from Stevens and Koon to Stevens and Thompson. We hope that we can interest Mr. Thompson in a GSOC membership card. Other members of the firm are Charles V. Foulds, Frank T. Kohler, and Marvin W. Runyan.

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THE LEO SIMONS IN CANADA

The rumor is that we may lose one of our good members -- the "bring 'em back alive-ers" have been making offers to Leo Simon.

It all started during a trip the Simons made last September into Canada. They had stopped the car and Leo was out getting ready to photograph some of the mountain peaks, when lo, out of the brambles strolled a band of wild sheep. Leo started coercing them in his smooth, easy jargon and before you could say "scat" or"don't scat," the leader of the band, a handsome ram, strolled up to within a few paces of the camera, crossed his front feet in graceful fashion, lifted his kingly head and bantered, "Shoot." Leo shot.

The result, along with many other beautiful views of Canada's stupendous scenery and Leo's informal chat concerning their trip, entertained our group most enjoyably at its Friday evening meeting at the library, December 14, 1951.

For those who missed this most outstanding entertainment, we've asked Johanna to give a few highlights.

"Our first stop was Tacoma for the showing at the N.W. and American National Convention of Agate and Mineral Societies which was very beautiful and informative. Seattle, Victoria, and Vancouver followed and then we were off into new territory. We crossed the Fraser at New Westminister, now our only connection with the United States was a view of Mt. Baker.

"Next, through a country that, like our own eastern Oregon, is rich with mines, old and new. A stop at Princeton where Leo enjoyed (?) a warm beer, and then into the Osoyoos and the lovely Okanogan valley, lush with fruit and vegetables.

"From here we drove to the ghost towns of Midway and Phoenix. The Granby mine at Phoenix - being resurveyed for possible reopening - is a very pretentious affair. If ghosts were there, however, they were all hiding in the empty bottles - we didn't see any.

"A short stop at Grand Forks of Dukhabor fame, then on to Trail to look at one of the largest smelters on this continent -- mostly lead and zinc. The complete plant is over a mile long. Next came Castlegar where we ferried the Columbia River which flows south here.

"Nelson, Kootenay Lake, and Kimberley, with its Sullivan mine producing 300,000 tons of lead and zinc annually, followed. Two and a quarter million tons of ore is mined here each year. The beautiful flower gardens of the hospital with its hot house and five attending gardeners that is maintained by the mining company was a highlight.

"Then at Canal Flats and Columbia Lake, what to us was a really profound experience, looking at the starting point of our own Columbia River.

"Next came Kootenay National Park with its elaborate hot water swimming tank and its bigger and better mountains.

"Now we are into the fairyland of Lake Louise and Banff. They deserve all the publicity given them. They are breathtakingly beautiful. We were impressed by the know-how and loving care apparent in the cultivation of the beautiful parks and gardens.

"In Kicking Horse Canyon, we found sweet peas still blooming. At Cranbrook we turned east through coal mining country. Then Fernie and Crow's Nest Pass into Alberta. At Frank we viewed the place where in ten seconds of time in 1903 a piece of a mountain 4000 feet long, 500 feet thick, and 1300 feet wide buried the town's inhabitants. This highway now passes over the slide material.

"At Pincher Creek we turned south to Waterton Lakes National Park that joins Glacier National Now over Logan Pass, elevation 6654 feet. There was rain, fog, and snow there and we came down into Kalispell, Montana, then to the new cobalt and tungsten mines at Chassis, Idaho. The atomic plant at Arco followed; then Craters of the Moon National Monument covering thousands of acres with its weird lava formations where you can climb and look down into the spatter cones. We climed the smaller cones but the wind was blowing so hard we didn't dare approach the deeper cavities.

"We found a wonderful mineral and mining exhibit in the State Capitol at Boise and then crossed the Snake into Oregon at Nyssa.

"Burns, Bend, Madras, then, after a day's digging at the Priday Ranch for plume agates, we reached home --- where we are now planning our next year's vacation."

J.E.

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SHRIMPS

There are now more than 8,000 recognized species of shrimps, lobsters, crabs, and closely related crustaceans in the world. This is about equal to the number of different kinds of birds known to science. The actual count, made by Dr. Fenner A. Chace, Jr., Smithsonian Institution curator of marine invertebrates, totals 8,321. It includes only living species of the so-called decapods, one of the major groups of the Crustacea. The name decapod is derived from the fact that the creatures have 10 legs (5 pairs). This enumeration is based on the large collections and records - among the most complete in the world - of the Smithsonian itself and on the reports of other biological institutions throught the world.

Dr. Chace lists a total of 1,930 kinds of shrimps divided among 211 groups or genera. But there are only 7 genera, containing 32 species, of true lobsters. Such animals as spiny lobsters and Spanish lobsters - the former imported in large numbers as frozen "lobster" tails - belong to different families.

Most numerous are the crabs. Dr. Chace finds a total of 4,428 true crab species divided among 635 genera. There are 114 genera and 1,527 species of creatures related to these true crabs, such as the mud shrimps, hermit crabs, and king crabs. The last provide the Japanese canned crab meat, so familiar on grocers' shelves before the war. The true crabs include such diverse but zoologically closely related animals as ghost crabs, fiddler crabs, spider crabs, rock crabs, and box crabs.

These decapods, Dr. Chace says, are by far the largest group of the crustaceans. They still are far from completely known, and it is highly likely that the number of species discovered eventually may be increased by 30 to 40 percent.

(From Smithsonian Institution, January 22, 1952.)

EARL MINAR LEADS CITY FIELD TRIP

The bright weather and the promise that we might learn some geological facts close to home brought out about three dozen seekers after truth at one o'clock, Sunday, January 27. The group met in front of the Journal Building which, in a way, was fortunate, for when the reporter reached into his pocket for his notebook he remembered that it was lying on his office desk, so he went inside the building and mooched a scratch pad from the only person in sight in the big room.

The line-up was about as follows: guests, Mr. and Mrs. Erickson with their two daughters and Linda Howard, Mr. and Mrs. M. R. Miller; and the following members: Mr. and Mrs. Ford E Wilson, Mr. and Mrs. Edward D. Bushby, Mr. and Mrs. Dwight J. Henderson, Mr. and Mrs. Leo F. Simon, Mr. and Mrs. H. Bruce Schminky, Mr. and Mrs. Thomas C. Matthews, Mr. and Mrs. Norris B. Stone, Mr. and Mrs. Albert Keen, Mr. and Mrs. Wm. F. Clark, Mrs. Estella Conner and Messrs. Earl Minar, Rudolph Erickson, Glenn C. Hazelhurst, Hugh Miller, R. F. Wilbur, Dr. K. M. Swisher and son, Mr. Ray Schneider, Orrin E. Stanley, and Junior Member John O'Connor.

The crowd trailed across S.W. Front Avenue to Mr. Minar's car which he opened and from which he took out an assortment of specimens of gabbro, granite, etc., with which his followers loaded their pockets.

From Mr. Wilson some of us learned, what others already knew, that serpentine is a metamorphous rock in which the green color is caused by the presence of iron silicate; and travertine is a calcareous hot-spring deposit. In the new State Office Building, sixteen carloads of travertine was used, we were told.

Mr. Minar said that the Federal Court House is built of what is called a "mutual" sandstone from Kasota, Minnesota; that is, it can be worked by machinery or by hand equally well, but the machinery is so much faster and cheaper that machine sawing and shaping is almost universally used now. The floor of the lobby is of Italian marble and the plaques in the north entrance are travertine from Italy.

A small amount of black marble from near Enterprise, Oregon, is used for ornamental work inside buildings, but in general it is too badly cracked to be commercially profitable. It has been burned for making a high quality of lime, Mr. Minar said.

Marble for use on the outside of buildings is usually sent from the quarries in slabs an inch and a quarter thick and is ground down to a thickness of three-quarters of an inch for use. Some of the very large slabs on the Oregonian Building are about three inches thick.

A stop was made at the City Hall where the outside row of pillars under the Council Chamber on the east side of the building are of Scotch granite which Mr. Minar thought was called "hill o'fare." The pillars which are sheltered by the Council Chamber are made of plaster and protected from the effects of the weather by varnish. The floor of this entrance is Italian marble.

Mr. Simon told the group some of the history of the large petroglyph which stands in the southeast corner of the City Hall block, and which bears a bronze plaque placed there by the Geological Society of the Oregon Country showing where the stone was found. This information has already appeared in the News Letter.

The "agate granite" which covers the lower story of the new Oregon State Office Building is from Cold Spring, Minnesota. It is well worth close inspection,

being splashed generously with patches of rainbow-hued agatelike translucent material. The columns at the west entrance are dark-colored gabbro from Wisconsin, while the light-colored walls are travertine.

We were told that the limestone used in the Oregonian building is from Bedford, Indiana, and the red granite walls of the first story are pegmatitic granite with inclusions of feldspar crystals.

The new stone on the outside of the New Heathman Hotel coffee shop is Swedish granite. Cremo marble from Italy is used on the Orpheum building. The granite at the base of the wall at the theatre entrance is from British Columbia.

St. Cloud, Minnesota, granite is used in the building at the northwest corner of S.W. Morrison Street and S.W. Broadway, and the marble on the building at the northwest corner of S.W. Alder Street and S.W. Broadway is from Yule, Colorado. In the doorway of the Florsheim shoe store on Washington Street is an artificial granite composed of coarsely ground natural granite and cement. It is said to wear longer than the natural rock.

The fossiliferous marble in the interior of the Pittock Block didn't get a very careful scrutiny as the building lights were out of order and the inspection was made with the aid of a pocket flash lamp loaned by the elevator operator. The steps of the Federal Reserve Bank are Minnesota granite containing pink feldspar crystals. At the new Telephone building, northeast corner of S.W. 9th and Oak, the marble is from Tate, Georgia, and the rainbow granite is from Norton, Minnesota. Yule, Colorado, marble is used in the First National Bank building.

At this point the party disbanded, some going to their cars directly while a small group consisting of Mr. and Mrs. Bushby, Mr. and Mrs. Simon, Mr. Miller, Mr. Minar, and the reporter invaded the nearest coffee shop for refreshments before going back to Mr. Minar's car where he produced several lovely specimens of granites as a dessert for the trip.

O.E.S.

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LUNCHEON NOTES - Thursday, January 10, 1952

My! my! but things have been going from bad to worse. The reporter's rough notes (and I mean rough) taken at this meeting do not record who brought the fossil pecten in sandstone concretion, but it was probably Mr. Baldwin. Mrs. Arthur C. Jones brought a jade point from the Kobuk country, just north of the Arctic Circle, Alaska, and a unique drawing of a "stone age" Christmas card by Dr. Jones. She also had a copy of Romance of Geology by Enos A. Mills. The information leaked out that the whole Jones family is expecting to go to London where the doctor will attend the International Congress of Physical Medicine this summer, after which they plan to spend some time traveling on the continent of Europe before coming back to Portland. Ardis hopes to remain in Europe for some time teaching. (Gosh! how I do wish that this reporter had been taught to write at some time in his life!) Mr. Hancock had a geode from the Clarno site which contained what had the appearance of crude oil. The oil had been discovered when he sawed the rock in two. It was mentioned that Mr. Hancock is now a life member of both the Agate and Mineral Society and the Geological Society of the Oregon Country, and that Mrs. Hancock is a life member of the Agate and Mineral Society. . . . .The recent death of J.Dean Butler was noted. . . . .The Leo Simon family had climaxed the vacation trip by a day's digging in the plume agate beds at the Friday Ranch. . . . . Mrs. Conner had her

purse right in her lap when the hostess came in to collect. Well, that's handier than hanging it on the door knob, isn't it? . . . .There were present Mrs. Baldwin, Mrs. Conner, and Mrs. Jones and Messrs. Baldwin, Elder, Hancock, Keen, Kelham, Matthews, Schminky, Simon, Stanley, Stevens, and Vance.

O.E.S.

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PRESIDENT WILSON'S OWN LECTURE MEETING

The regular monthly meeting of the G.S.O.C. was held in Library Hall at eight o'clock P.M. January 25, 1952, with the president introducing two guests present.

After making various announcements about future meetings and the banquet, President Wilson then proceeded with the program of the evening.

Pres. Wilson described in some detail the occurrence, chemical behavior, and physical properties of a very rare element named gallium. This element is a member of the boron-aluminum family which also includes the rare elements indium and thallium. Gallium is being manufactured currently in commercial quantities by the Aluminum Company of America as a by-product in its aluminum manufacture. One of the most striking characteristics of the metal is the fact that it is liquid at a temperature of about 90° F. This was demonstrated very ably by Mrs. Wilson who held the specimen in her hand for a short time. This metal is now being used in our present-day world.

The president then placed in a slide some sand. These grains of sand from a heavy mineral concentrate from the Middle Fork of the Clearwater River in Idaho were then examined by the group, under the microscope. This was intended to demonstrate how sands may be analyzed and the mineral grains identified. One could see red, green, and black minerals with some being of gem-stone quality - if only they were large enough to cut and polish.

The second slide contained forams from the Helmick Hill locality in Polk County. Only 3 or 4 members of the group indicated that they had seen these tiny fossil animals before. These forams were very interesting in form when viewed through the microscope.

To wind up the evening program, Mr. Wilson then opened two large bags containing obsidian from Eugene and diatomaceous earth from Terrebonne, Oregon. Mrs. Wilson also gave each person a small sample of beta-quartz crystals from the Hills Creek locality.

Ray Schneider

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LUNCHEON NOTES - Thursday, January 17, 1952

Rudolph Erickson brought a copy of the Natural History magazine containing an article about the Knik glacier and glacial Lake George in Alaska. He also had a letter from Dr. Chaney mentioning a fossil leaf deposit near Fossil, Oregon. . . . .Mr. Matthews had a specimen from the Neahkahnie mine, found at a depth of 57 feet in blue clay. . . . .Mrs. Clark, General Chairman of the 1952 Annual Banquet Committee, announced the date of the banquet to be February 22. Mr. Rose, a guest, offered to bring and operate his 16 mm sound projector at a meeting of the Society if it might be needed. . . . .Mrs. Bushby had a natural cross from Virginia and a price list of similar specimens mounted in different styles. . . . . There were present Mrs. Bushby, Mrs. Clark, and Miss Henley and Messrs. Adams, Baldwin, Clark, Elder, Erickson, Keen, Kelham, Libbey, Matthews, Rose, Schminky, Simon, Stanley, Stevens, Stone, and Vance.

O.E.S.

LIFE HISTORY OF A TREE*

I guess that I wrote you of the hundred-year-old fir of Blom's that was uprooted last year and fell across the fence with half of the wood on Charley's place and the other half fast to the stump. I made Charley's half into stove wood and then got permission from Mr. Blom to work up his half for his fireplace. I went over to the stump this morning and split up one chunk. There are only three more chunks left and when they are split I shall have no more logging in sight.

I am as much interested in the life history of a tree as I am in the biography of a human being, so I found the job as interesting as reading a book.

This fir seems to have started out to be a Christmas tree as indicated by the knots close to the ground. In its early twenties it happened to an accident; was pushed out of plumb and had its top damaged so it decided to try for the sawlog class. The lower twenty feet was timber-bound in order to counteract the damage done to it in its youth, but the top hundred feet was straight, but no sawlog.

When it was about fifty years old there was a big wind that caused the formation of a pitch ring in the lower twenty feet. Otherwise its growth was fairly uniform.

Altogether there was about seven-tenths of a cord of good firewood in the trunk and limbs -- seven-thousandths of a cord a year. We burn about five cords per year so we should have seven hundred firs growing on our woodlot; that, or trees of comparable heating value. My figures have not been checked and may be all wet. I might dig out the stumps and cut down the acreage somewhat, but no one else would do that.

Then I got to wondering if a surgeon and a phrenologist could take my corpus and by dissecting it, come as close to writing my life history as I have come to writing that of Blom's fir.

The rain drove me indoors and you see what has happened. I had to do something to keep me awake. When I sit down in front of this old Remington 'most anything is liable to happen. The first thing that happened today I "pulled a draw-bar," got the ribbon loose at one end. Being the world's worst mechanic, I had quite a time for myself and I suspect that the ribbon is twisted but it works; so what the hell.

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*From a letter to the editor.

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LUNCHEON NOTES - Thursday, January 24, 1952

There were no specimens, magazines, or stories, but a pretty good beef stew. Vice President Bushby made announcements of current interest. . . . .Those present were: Dr. and Mrs. Adams, Mrs. Bushby, Mrs. Conner, Miss Henley and Messrs. Baldwin, Elder, Erickson, Kelham, Libbey, Matthews, Rose, Schminky, Simon, Stanley, Stone, and Vance.

O.E.S.

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THE MORNING MAIL

Time was when the coming of the mail carrier meant something more than a sheaf of circulars -- when his steps on the porch and the rattle of the mailbox flap caused a pleasant quickening of the pulse and a hope that there might be news from Aunt Jennie in far-off Connecticut, or even from a friend or relative in Seattle or Los Angeles; but we have long since ceased to have a heart-flutter over such a possibility, and now we stoop for the pile of letters with a steady hand and a long face. It is usually the same old story.

First on the pile is from the private office of Dr._____,Ps.D., who opens fire with the statement that there are "Hundreds of people living within a few miles of you who are ready RIGHT NOW to pay you ten dollars apiece," etc. Another tells what you have long ago come to accept as a solemn fact: that "You may be held back by an ineffective speaking voice," and so on down the pages. "Do I have a breathy tone?" or "Is mine a 'Voice of Distinction?'" For a nickel less than five dollars "you can get the help that YOU need."

A counselor on Self Improvement sends "A MESSAGE OF VITAL IMPORTANCE!" two pages long and then you are told that this may be the "MOST FORTUNATE DAY OF YOUR LIFE!" And all this, so a yellow sheet says, for only $2.98 plus collection charges and postage.

A fat little envelope brings the message that "Prayer changes things. Prayer changes you." The price for this book is only $2.00. An important looking envelope rubber-stamped in red: "Air mail reply requested," inquires if the sender may send the "Pacific Coast Edition for three months for only Five dollars." Sorry, we're fresh out of five dollars besides being buried deeply in unread magazines.

But, oh, joy! Here's a post card with a photograph of a KUDU from Kruger Park, and on the other side is a message from our old friend, Dr. Hodge. It reads: "I hope this card will bring to you Christmas greetings. I have been to the southernmost tip of Africa, covered the vast and rainless Kalahari Desert, steamed on the Mozambique border, and explored the no-man's-land of the Koakoveld which lies just south of Angola. Everything here is from 100 to 200 miles apart; roads are few, and in general, water is even less abundant. My trip here has been very successful in that I have secured large concession in Southwest Africa." And does that make the editorial feet itch for far places!

A tiny envelope that was nearly overlooked in the pile of impressive ones contains a sad message from the widow of a boyhood friend who was almost like a brother seventy years ago. Well, practically seventy. We had snared and skinned striped gophers preparatory to becoming trappers in the far west, had wallowed around in the muddy "swimming hole" in Silver Creek, and ran naked through the rolling pastures of Pottawattamie County. We had together fought the vicious bumble bee for its store of honey, and husked corn on frosty mornings. Lafe lived on in the same community where we played and worked together, and last July 11th passed to the reward of a devoted Christian.

A rather more cheerful ending to the sorting of the morning mail was a very thin, and unpromising envelope containing a check for $18.20. Well, every little bit helps.

O.E.S.

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EARLY AMERICAN HISTORY*

When the first white men came to the New World they found two flourishing native civilizations in Central America - that of the Maya in southern Mexico and Guatemala and that of the Aztecs in Mexico.

These were distinguished by elaborate politico-religious organizations and temple cities. They had originated several hundred miles apart and were related only vaguely, if at all, with each other.

Trailing behind them, perhaps by a couple of centuries of cultural evolution, and lost sight of in comparison, were the strange kingdoms of the Zipa and the Zaque of the Chibcha Indians of Colombia. These are described by Dr. Alfred L. Kroeber, professor of anthropology at the University of California, in the Handbook of South American Indians issued by the Smithsonian Institution.

The Chibcha, Prof. Kroeber says, actually had moved some distance in the direction of civilization. They had evolved politically from the status of tribal life to that of organized states. They were essentially on the level with the others in military organization, trade, and political relations, religious concepts, and manual industries. But they had developed no calendar and no astronomy. They did not build in stone, had no sculpture, and their art was decidedly second rate.

They were chiefly concentrated along the Bogota and Sogamoso rivers. In the upper valleys of these two rivers were the capitals of their kingdoms and their sacred sites, at 8,000 to 9,000 feet altitude. The kingdoms of both Zipa and Zaque, however, comprised much territory outside these high valleys. The total range of Chibcha territory may have included about 6,000 square miles. The population at the time of the Spanish Conquest has been estimated at about a million, but this figure may be too high, Dr. Kroeber believes. They were militaristic states and are described by Spanish chroniclers as fighting each other with armies of 50,000 or more soldiers.

Their towns were composed of houses with walls of cane daubed with mud, with gabled or conical roofs, and sometimes had double walls. Palaces and towns were enclosed in palisades of cane between posts, with occasional "crow's-nests" on poles supposedly used as watchtowers.

Markets were held every four days in the chief settlements and there was quite extensive trade with Indians outside the Chibcha area. In this, cotton cloth, salt, and emeralds were given for gold which was used in their handicrafts.

Both the Zipa and the Zaque were extremely powerful rulers, according to Prof. Kroeber's account, although powerful nobles constantly were revolting against them, and their kingdoms lacked anything like permanence.

Within the territories which acknowledged their rule they were shown every respect which native imagination could contrive. Even the most powerful subordinate chiefs never looked them in the face. Spanish soldiers were considered shameless because they looked their own officers in the eyes when they addressed them. An incorrigible thief was forced to look his ruler in the face and then turned loose. It was believed he had suffered a punishment worse than death. The litter in which the Zipa traveled was hung with sheets of gold, and was preceded by an attendant who strewed the road with cloth or flowers.

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*From Smithsonian Institution, January 27, 1952.

Succession to the rule was through the mothers. The "crown prince" had a hard apprenticeship for his exalted role as he was confined for about six years in a temple, forbidden to see the sun, and was allowed out only at night. Occasionally he was whipped.

Even harder was the apprenticeship of a priest of the ghastly sun worship practiced by the subjects of the Zipa and Zaque. He trained for 12 years in a special building, eating only a little maize once a day. "Perpetual penance," says Dr. Kroeber, "seems to have been the first demand of the office."

There were many temples, with crudely made idols, and also shrines to lakes, rivers, caves, and mountains. Lakes in particular were supposed to be holy and were associated in some manner with snakes. Offerings often included gold and emeralds, which aroused especially the interests of the Spanish conquerors.

Human sacrifice was made primarily to the sun, who it was believed "ate" persons. To appease the angry sun when there was a drought, priests took a child to a mountain top that looked eastward, killed it before sunrise, and anointed the east-facing rocks with its blood.

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LUNCHEON NOTES - Thursday, January 31, 1952

Those present were: President Ford E Wilson, Vice-President May R. Bushby, Mrs. Gonner, Miss Henley and Messrs. Baldwin, Bushby, Keen, Kelham, Libbey, Matthews, Schminky, Simon, Stanley; and guests Hendricks and Rose. . . . .Mr. H. E. Hendricks of Baker, Oregon, was Mr. Libbey's guest. He is a member of the Governing Board of the Oregon State Department of Geology and Mineral Industries and was in Portland in connection with his official position. He said that mining in the vicinity of Baker is at a very low ebb at present. . . . .President Wilson made official announcements appearing on the first page of this issue of the News Letter. . . . . H. Bruce Schminky had a photostat copy of the log of the "Ladd Well" drilled at a point near the intersection of N.E. Glisan Street and N.E. 39th Avenue. The records were kept by Dr. W. E. Everette, who lived near the well, in collaboration with Dr. Condon. . . . .Mr. Edwin C. Bushby had been in Boise recently and brought back a specimen of opals on a black (probably vesicular basalt) matrix, and a thin section of green moss agate. Both were found in Idaho. . . . .Thomas C. Matthews had a copy of Ward's Natural Science Bulletin with a larger-than-life portrait of a beetle (Polyphylla) which Leo Simon, coming down from his polysyllabic pedestal of scientific phraseology said: "We call it a 'May beetle'." Hurrah for Leo! . . . . .Mr. Matthews also had a very beautiful specimen of pink selenite (gypsum crystals). . . . .Albert Keen had a selenite specimen with transparent crystals from Bisbee, Arizona. . . . .These specimens inspired Mr. Rose to tell of the discovery of a gypsum deposit in southern British Columbia north of Spokane, the search for which was started by the discovery of gypsum in the town's water supply. . . . . Mr. Matthews also had a magazine containing an illustrated article about the salt mines under the City of Detroit. . . . . Leo Simon was selling tickets for the Annual Banquet, good only at the Mt. Tabor Presbyterian Church, February 22, 1952.

O.E.S.

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SPAN OF LIFE

Mrs. A.C.Jones found the following "evidence" that man's span of life has been quadrupled since he began studying history. Or perhaps you may put a slightly different interpretation on the following quotation from the Oregon Journal of Jan. 17.

> "Data is meager, but it appears that the average life span of prehistoric man was 18 years."

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GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

Officers of Executive Board, 1951 - 1952

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Bus. Mgr.: Mr. Raymond L. Baldwin		4804 S.W. Laurelwood Drive	1	CH 1452

SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1951 - 1952

EVENING MEETINGS: Formal lectures or informal round table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85¢ per plate.

PUBLICATION: The GEOLOGICAL NEWS LETTER, issued once each month, is the official publication of the Society.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should be made payable to the Society. Applicants for membership should submit an application form, and remittance for dues, to the Secretary.

CALENDAR - MARCH 1952

March 6 Thursday — Weekly noon luncheon

March 13 Thursday — Weekly noon luncheon

March 14 Friday — Regular evening meeting Library Hall, promptly at 8:00 P.M. A talk on the geology of Lookout Point Dam by resident geologist Paul W. Howell. This is going to be a fascinating talk. Many of us will remember Mr. Howell from our trips to Lookout Point Dam and we all look forward to an interesting and stimulating evening.

March 16 Sunday — There will be a field trip on Sunday, March 16, led by Norris Stone, Leo Simon, and Rudolph Erickson. We will meet at east end of tunnel on Sunset Highway at 9:30 A.M. (35 miles northwest of Portland). Will dig for marine fossils and concretions. A heavy hammer is handy for breaking concretions. Mr. A. D. Vance will explain the geology of the region.

After a visit at the Empire Expanded Shale plant at west end of tunnel, we will eat lunch. (You bring the lunch.)

In the P.M. we will follow Rudolph Erickson to locations near Durham and Cipole stations to view and argue about rock and sand formations. The survivors will then proceed to the Norris Stone home at Glenmorrie for coffee "and."

March 20 Thursday — Weekly noon luncheon

March 27 Thursday — Weekly noon luncheon

March 28 Friday — Regular evening meeting Library Hall, promptly at 8:00 P.M. David White of the Department of Geology and Mineral Industries will talk on "Scheelite Occurrences of Southwestern Oregon." Included will be a brief description of scheelite and its common mineral associations, and samples from the area will be displayed.

* * * * *

NEW MEMBERS: Mr. and Mrs. Howard E. Rose, 522 N.E. Thompson Street, Portland 12.
Miss Mary Davenport, Route 6, Box 353, Vancouver, Washington.

CHANGE OF ADDRESS: Miss Ruth Emily Coats, 3846 Skyline Road, Carlsbad, California.

" " NAME: John F. Wheeler - (Formerly used his stepfather's name of O'Connor.)

* * * * *

NOTICE

New covers, carrying newly elected officers and editorial staff, will begin with April issue.

* * * * *

IMPORTANT NOTICE! (This means <u>you</u>)

We'll soon be printing our list of members and if there has been any change in your address or phone number during the past year, please let our secretary, Mrs. Leo Simon, know immediately.

* * * * *

COME ON -- GIVE!

If you have read and enjoyed some particular work or writing on geology or allied subject, wouldn't you like to have some fellow Geesocker also enjoy and profit by what you found interesting? If you'll submit a list of recommended reading, your editor will try to include it in a bibliography to be made available to all members. This would be very helpful to our new members, as well as to some of us older "would be" geologists.

"RETROSPECT"

Address of Retiring President Ford Wilson at Annual Banquet

Dr. Jones, Fellow Members of the Geological Society of the Oregon Country, and Friends:

As retiring President of this Society, I stand before you to review, in retrospect, our activities for the past year. It seems to me appropriate to compare the GSOC to a ship -- there are many points of analogy. Therefore, I shall make some use of nautical terminology in this brief resume. A year ago you gave me the honor and privilege of taking the wheel and serving as captain.

The captain alone cannot operate a ship, and so I have had the assistance of willing and capable officers and crewmen. First mate has been May Bushby. Norris Stone has been purser and Ruby Zimmer has been chief yeoman. Executive officers have been a group of Admirals - Mrs. Bartow, Simon, Hodge, Oberson, and Johnson.

Much of the time, the good ship GSOC has been moored in Portland, its home port. Twice a month, in the evening, we have met on board with friends and guests to learn more of the geologic world about us. On several of these occasions, another ship, the "Star Gazer," has been moored along side, and we have had joint meetings with Captain Edgar and her officers and crew of the Portland Astronomical Society.

Each Thursday noon, the members have come aboard for an informal luncheon and discussion, with geological motif. Leo Simon was selected to preside at these events.

Once a month, usually, we have assembled on board, weighed anchor, and cruised to some spot of geologic interest. Sometimes the captain has taken the wheel for these excursions, and sometimes a member or a friend with special knowledge of currents and channels has been the pilot.

Once a month we have published a ship's paper. This has contained the ship's log and other ship's news. Chief yeoman of the paper has been Orrin Stanley, who, as you have seen tonight, has been accorded the highest honor this Society can give.

Our ship's library has, for many years, been in charge of Mary Margaret Hughes. It stands now as a monument of her unselfish devotion to duty. She, likewise, has been accorded the same high honor given to Yeoman Stanley.

Twice this year we have assembled together to enjoy a special party. Last summer, for one of these, we cruised to the top of Mt. Tabor for a picnic and an evening of geologic stunts. Jane Erickson was the very capable leader for the cruise. In more serious mood, we have assembled on board tonight for the Annual Business Meeting and Banquet. Chief Stewardess for this, and doing a wonderful job, is Mrs. William Clark.

Other members with regular tours of duty have included: Ray Baldwin, Leslie Bartow, Leonard Buoy, Franklin Davis, Helen Haven, Ada Henley, Mary Margaret Hughes, Fay Libbey, Clarence Phillips, Bruce Schminky, Johanna Simon, Margaret Steere, Jack Stevens, and Albert Vance.

Special thanks are due Mrs. Arthur Jones and her nominating committee -- Mrs. Buoy, Al Keen, Tom Matthews, and Robert Wilbur, who selected nominees for captain and officers for the coming year. The thanks of the Society are extended again to Mrs. Lillian Owen, who has typed and printed all of our publications.

I wish to extend the sincere thanks of this Society and to express my own personal appreciation to our Banquet speaker, my good friend Lloyd Staples. He has interrupted a very busy schedule to be with us tonight.

To all others who have assisted this administration go my sincere thanks.

There have been too many highlights in the activities of the past year to be recounted here. Two of them, however, will always remain vivid in my memory - the impersonation of Aunt Min by Leonard Buoy and the Camp Clarno nighttime scene enacted by Berrie and Lon Hancock.

A year ago, it was my promise that my administration would keep the good ship GSOC on an even keel, steer a course in the middle of the channel and deliver her in ship-shape condition to our successors. Only you can decide with what success we have accomplished this assignment. I thank you.

* * * * *

Following is the acceptance speech of President Stone:

"It is with a sincere feeling of humility that I accept the faith you have just shown in my ability to successfully carry on for you during the coming year. Frankly, it is more than I innately possess. But your faith, that noble virtue that makes of hope a reality, has come as a challenge, and I will do my very best to merit it.

"Your new officers and committees will do a good job, IF (and that's a big word) they have cooperation from each of you. Cooperation is the yeast that leavens our Society, or any other group of workers, into a whole, living, progressive entity. Without it, we are impotent.

"So now, as we ask that you enter into our activities, our field trips, Friday night lectures, Thursday noon lunches, Helpers on committees, etc., please do the very best you can.

"Our acceptance shows our faith that you will give us this cooperation. So that, as the former 17 administrations have done, we will be able to pass on to the next incoming one a firm basis for constructive progress which considers, not only our own pleasure and enlightenment, but also takes off the bushel from atop our light. So that anyone, anywhere, who has a yen to know more about this wonderful Earth, will become aware that they are welcome into our Society and met with open arms!"

President Stone then introduced the newly elected officers and directors (which will be found listed in the banquet program, a part of this News Letter) and his various committee appointees, who are discussed at length in his talk, also quoted herein, titled, "1952 - WHAT?" He mentioned that among the various ones on committees were the following charter members: Dr. Edwin T. Hodge, Raymond L. Baldwin, Leo F. Simon, H. Bruce Schminky, Dr. J. C. Stevens, Lon W. Hancock, and A. D. Vance. Upon Dr. Hodge and Lon W. Hancock, he stated, has been conferred the highest degree in the Society, that of Honorary Fellow.

J.E.

****

GOOD OMEN

Did anyone notice that our new president's wife's hat worn at the Banquet matched exactly the red of the color scheme, candles, camelias, etc.? Just another omen for a harmonious year.

****

ANNUAL BANQUET

A "Happy Birthday" motif, complete with flags, cherry tree place cards, red candles, and ivy greeted GSOC members and guests at their Annual Banquet on Friday evening, February 22, Mt. Tabor Presbyterian Church. The coincidence of the day's being George's 220th and our 17th birthday was cleverly brought out by our most able program chairman, Mrs. Wm. F. Clark and her committee. Each lady at the head table was presented with an attractive camelia corsage, beautifully made by Mrs. Benj. Smith. A birthday cake for President and Mrs. Wilson, as well as individual cakes for each guest, decorated and lighted with red candles, climaxed the most enjoyable dinner.

Past president Dr. Arthur C. Jones, emcee for the occasion, stated that President Ford Wilson wished to make an announcement and the following honors were conferred:

> To Miss Mary Margaret Hughes, in recognition of outstanding and meritorious service, the nomination of Honorary Life Fellow, with the additional honor of designation as "Librarian Emeritus."
>
> To Orrin E. Stanley, in recognition of outstanding and meritorious service, the nomination of Honorary Life Fellow, with the additional honor of designation as "Editor Emeritus."

Mr. Stanley, in accepting and thanking President Wilson, made what is probably the shortest speech in geological history.

"Fortunately, I have to leave quickly, so haven't time to make any speech. I thank you." A remark was made that he had earned another medal.

A short business session followed with announcement of new officers and directors, reading of minutes and their approval. Treasurer's report is to be printed later.

President Ford Wilson then closed his most successful year as our leader by handing the gavel and a copy of our revered Condon's "Two Islands" to our new president, Norris B. Stone, and 1952 was in full swing. His talk, as well as President's Stone's, is printed elsewhere in this News Letter.

The speaker of the evening, Dr. Lloyd Staples, professor of geology from the University of Oregon, was then introduced and things started happening. For details, see comments on his address, "Geological Gremlins."

Intermittent group singing during the evening was led by Clarence Phillips, who also made some rather astonishing revelations concerning various members of our society.

Following one of the songs which was prefaced by Mr. Phillips' conferring upon Mrs. A. W. Hancock the title of "Pianist Meritorious" there was a great clamor at the back of the room as a queer looking apparition made its way to the rostrum. We thought at first that Billy Graham had been turned loose upon us but if he had, some of Dr. Staples' gremlins had been working him over, for he "played on a harp of a thousand strings, spirits of good men made free!" When he got through with his exhortations, there wasn't much left of his harp or the reputations of various of our GSOC members, particularly those questionable characters, our past presidents. Some thought they recognized Lon Hancock from the fanatical gleam in his eye, but, be that as it may, his harangue was a fitting close to a most inspiring and stimulating evening's entertainment. Mrs. Clark and her fine committee are certainly to be congratulated.

J.E.

DR. LLOYD STAPLES AND HIS "GEOLOGICAL GREMLINS"

Immediately after Dr. Lloyd Staples announced the subject of his address at our annual banquet, "Geological Gremlins," the little people took over and proceeded to run things for the balance of his discourse with a high-handed perversity that Dr. Staples explained was solely for the purpose of generally bedeviling and discrediting reputable geologists.

In vain did he remonstrate. They overturned folds, over-thrusted faults; they juggled Paleozoic with later stratas, like whipping eggs into a cake. They drowned rivers, elevated ocean beaches, and changed rhyolites into welded tuffs. They squirted mineral-laden juices into sedimentary rocks, making them metamorphic granites. Not content with raising bally heck here, they jumped to the Appalachians, and put synclines where anticlines should be, and generally upset everything.

Dr. Staples dizzily grasping the table shouted at them, "It ain't so!" But they paid no attention. They impudently split a continent in two, right in front of his and our very eyes and made South America and Africa. Sliced her right down the middle, just like an apple. Next, they came up with some sleight of hand with meteors. They made the craters and then hid the meteors up their sleeves.

And finally, they started real trouble. Sticking out their tongues at everyone, they began to play hide and seek with Oregon's mines. The Blue Bucket and the Red Blanket and others. When they got tired of this sport, they had some fun with metal ores -- tin, white metal, etc. They made them produce, but not assay.

By this time, Dr. Staples, his coat and tie off and blue in the face, was hanging to the chandeliers. He yelled at the gremlins to get the blankety blank out, but they only answered with more high jinks. This time it was with mercury. They changed red cinnabar to black so that it wouldn't be recognized by prospectors and geologists. Finally, to permanently discredit all geologists everywhere, and render useless and unnecessary any further scientific study, they brought in water witching, quoting as their source material, Kenneth Roberts' "Henry Gross and his Dousing Rod."

Luckily for Dr. Staples, who by this time was practically "out" from frustration and shock, Dr. Arthur C. Jones was on hand to render first aid. He gave him a geologist's pick (a gift from our Society) to defend himself from the gremlins, and a water witch, hastily gleaned from some conveniently nearby pussy willow and from now on, he won't have to rely on scientific data at all but can get accurate results with no come back.

Dr. Staples, his professional dignity now restored, closed his talk and left us with the feeling that any time he wants to present his gremlin-harried personage at our banquet table, he has a rousing welcome waiting, and a highly attentive audience to listen to him.

Incidentally, his coming here to talk to us is doubly appreciated, inasmuch as he had to return to Eugene that same night in order to be in attendance at the Science Conference the next day.

J.E.

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DR. WILKINSON RECOVERING

Dr. W. D. Wilkinson of the Oregon State College department of geology recently underwent a major operation in Corvallis, but his friends deny that "gizzard stones" were found in Doc's underlying formations. He underwent an emergency appendectomy in February. Dr. Wilkinson made a fine recovery.

P.B.

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"1952 - WHAT?"

Address of President Norris B. Stone at 17th Annual Banquet

Seventeen years ago, the Geological Society of the Oregon Country was organized. Going over the News Letters published since then is an education. It is refreshing to note the amount of interest this group has taken in geology and other earth sciences that lift us humans out of the jostling humdrum of our fast-moving times. Field trips, Friday night lectures, weekly luncheons, articles in the News Letter, Portland's new museum, all passing before our eyes in a constructive panorama. Seventeen years of mutual pleasure and education. Seventeen years of experience. It all draws us back to make use of these years in our future progress. So, you may note in the following and in various activities during 1952, not a copying or aping, but of using them to the best of our judgment. Isn't this an incentive to new ideas, new way of betterment? As an example, what a field the new Museum of Science and Industry has fostered, toward interesting our youth in the sometimes considered "adult" hobby of geology!

I can take my own experience of floundering around for years in geological textbooks. I didn't know anyone who knew anything about geology, nor did I know that there was such a thing as a society such as ours open to unlearned laymen. As soon as I found it out, inside of twenty minutes, you had my application to join. We must open our doors wider to the layman, both youth and adult.

Our officers and committees are a fine group. As usual, one trip each month is planned. If you know of a good trip pass it along. Headed by Leo F. Simon and assisted by Rudolph Erickson and Reynolds W. Ohmart, we have every assurance of some very interesting and enjoyable tours. Memorial Day, 4th of July, and Labor Day give us three "three-day holidays" which are occasions for some far away places. Two of these are already under way. Watch your News Letter.

Friday night lectures will continue under the able leadership of Mr. Tom Matthews, assisted by his boss, Mr. F. W. Libbey. Can you imagine Tom, at night time, telling his boss of the daytime, to get the heck down to the depot and meet Prof. Slipupsky who is to give a talk that night on the "Geology of the Metamorphosis of Slickensides?"

The first lecture, Friday night, March 14, at Library Hall, will be by Mr. Paul Howell, resident geologist at Lookout Point dam. Mr. Howell will illustrate his lecture with color slides. His title will be "The Geology of Lookout Point Dam." And to those of you present who are not members but who are interested, may we say you are most welcome to go with us on our trips or attend our lectures. The proper committee, under the chairmanship of Mr. Albert Keen, will see that you feel at home.

Now as to exhibits. The old prospector, that geological horsetrader, who can smell old bones in the ground that he didn't even bury, a charter member and Honorary Fellow, Lon W. Hancock, chairman of Exhibits Committee, will see that rocks and fossils, where appropriate, are on hand at our Friday night lectures to make the evening's subject more demonstrative and clear.

We are resuming an old tradition of the Society, a Flora Committee. Leo F. Simon (full name "Leo Fried-Chicken Simon") assisted by Mrs. Leonard Buoy, will head the same. Bring your specimens to them. Short descriptions will be given space in your News Letter.

Many of our geological spots in the Oregon Country go unseen by thousands, or, if seen, at least unexplained. The Society has provided two bronze plaques. One is on the petroglyphic rock on the 4th Street side lawn at the City Hall. Slip around there some time and take a look. You will feel very proud. The other is up at Ben Morrow Lake at Bull Run Dam. These markers add to the pleasure and education

of all who see them. Mr. H. Bruce Schminky is the chairman of the Markers Committee and it is our hope that at least two of these markers be added each year. Bruce has already done some preliminary work on one for Mt. Tabor which will be his first effort. He would appreciate any suggestions.

The Society has a very fine library built up under the able supervision of one of our most devoted and beloved members, Miss Mary Margaret Hughes. Full recognition of the library and means of getting books into the hands of members will be given in our News Letter. Library Chairman, Mrs. Edward (our May) Bushby, is already busy with her plans for 1952.

Miss Ada Henley has again kindly consented to head the History Committee. One of her duties is to keep a record of all pictures. Most of these are on field trips and most of them taken by our faithful, artistic, and perennial photographer, Orrin Stanley. Miss Henley has accumulated three large albums from 1935 on that are delightfully interesting.

We are all pleased at the election of Mrs. Rudolph (Jane) Erickson to office of Editor. She will continue to make the News Letter a permanent record of our activities.

Plans are under way to establishing a closer contact with our high schools, colleges, and the personnel of our University Extension courses in geology. Also for closer relations with neighboring societies, such as Salem, Bend, Agate and Mineral Society, etc.

Last but not least, is Dr. J. C. Stevens' (Jack to us) museum. From 1937 on he has doggedly devoted his energies to this worthy accomplishment. It's been a long, hard pull but today the Museum of Science and Industry is a fixed part of our community. Located at 908 N.E. Hassalo, under the able directorship of Stanley Shirk, it is serving schools and organizations by loan of exhibits, its fine Planetarium and other educational services. Last year it sponsored a trip for some 16 high school and college boys into the Clarno Hills. Two weeks were spent in company with geologists, digging fossils, learning formations. What better environment for our youth? Dr. Stevens has accepted the chairmanship of the Museum Committee for this Society in 1952 and we assure him our full support. Anything that aids as greatly as this in broadening the viewpoint of our youth will make a better tomorrow. "As the twig is bent, so grows the tree!" I thank you.

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MUSEUM

We have the following letter from Mr. Stanley H. Shirk, Director of the Oregon Museum of Science and Industry:

> "Kindly accept our sincere appreciation for the generous gift of the Geological Society of the Oregon Country to the Expedition Fund. On the basis of our recent experience with the boys down in the Clarno area we can assure you that your contribution is to a very worthy cause.
>
> "We wish to publicly express our gratitude to your President, Mr. Ford Wilson, and to Mr. Lloyd Ruff for their gratuitous services as members of the camp staff. Judging by the reactions of the boys to the over-all program, we know that the time, energy, knowledge, and money donated to the program is a most worthy investment."

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"A ROCKET TRIP TO THE MOON"

There was"high goings-on" at Library Hall Friday evening, February 8, when moonstruck GSOC members met with the Portland Astronomical Society to hear Mr. Harry G. Johnson of the Brown Foundation speak on the subject "A Rocket Trip to the Moon." Several of us took the title of his talk seriously and appeared all decked out in our space suits. Lon Hancock was discovered hiding his, somewhat sheepishly, under his overcoat. Some of the women brought food, even - Mrs. Ford Wilson baked a chocolate cake - and there was visible disappointment when the rocket ship turned out to be a model and the trip only a theoretical one.

Mr. Johnson made the rather startling pronouncement that there is definite expectation we will get to the moon at some future date, unless stopped by meteors. He stated that were it not for demands of war, we might be trying it at this very moment. He showed some very fascinating slides with Mrs. Johnson serving as projectionist. Two flight plans of how a contact with the moon might be accomplished, particularly the one with the rocket trailing out behind the earth and then, with expert timing, making the contact, were very interesting. Also the sun, moon, and earth gadget; various sky maps; and an electrically dotted chart showing detail of a portion of the sky. Also some clever "dot and dash" slides that gave a comprehensive idea of how far it is to the dog star Sirius. It ain't close.

A question and answer period brought Mr. Johnson's talk to a finish. To the question "Is there life on the other planets?" he speculated there could be none due to the extreme thinness of the air. Venus, he told us, has oceans of formaldehyde, also large quantities of plastic. Miss Margaret Edgar, president of the PAS, who introduced Mr. Johnson extended a cordial invitation to all GSOC members to attend their meetings, first Monday of each month at the Planetarium, East 9th and Hassalo. For astronomical study, Mr. Johnson recommended the Harvard series.

J.E.

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G.S.O.C. LUNCHEON, FEBRUARY 7, 1952

With an attendance of nineteen, including guests Fred W. Stadter and Florence Woodard (a former member), this meeting was a near-record for the year. Members present were President Ford E Wilson, Vice President May R. Bushby, Estella Conner, Eleanor Gordon, Ada Henley, and Messrs. Baldwin, Bushby, Elder,Erickson, Libbey, Matthews, C.L.Phillips, Richards, Schminky, Simon, Stanley, and Vance. . . . . President Wilson made several announcements before it was necessary for him to leave. . . . .Mr. Matthews called attention to an article about a new wilderness area spanning the boundary between Canada and the United States. . . . .Mrs. Bushby had photographs she had taken on the Sunday field trip around the business section of Portland studying the rocks used in local buildings. She also had several specimens of rocks similar to some of those seen on the trip. These, she said, were given to her by the trip leader, Earl Minar. . . . .Mr. Libbey had an opalite from about six miles east of The Dalles, Oregon. . . . .Mr. Vance brought an attractive specimen of lead and zinc ore from the Longshot Mine in northeastern Washington. The specimen also contained copper and scheelite. He did not offer to sell stock in the mine. Mr. Libbey mentioned that the northeastern part of Washington is rapidly becoming a leader in the production of zinc. . . . .Mrs. Gordon had a nice specimen of trilobite from the late Cambrian period, as shown by the better development of its eyes.

O.E.S.

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"YOUR LIBRARY AND MINE"

How do you do? I'm your new librarian. I'm here (my vacation February 20) spending a whole half day with "Your Library and Mine" where it is housed at 908 N.E. Hassalo Street in the Museum of Science and Industry.

Does dust collect on your book shelves? It does here. Ppouff!! Maybe it's because these books aren't handled and read. We'll have to correct that. I'm going to get better acquainted and I'd like to share my findings with you.

Here's a nice, clean State Department of Geology bulletin, no. 3, prepared in cooperation with the U.S. Geological Survey by C. P. Ross (1938) titled, "The Geology of Part of the Wallowa Mountains." I turn the pages and find that no rocks older than Carboniferous have been recognized. Practically nothing is known of pre-Cambrian. But fossils have been identified as Permian. The Permian deposits are volcanic whereas the Carboniferous includes limestone, chert, and black slate which are marine and may have been formed at great depth under the sea. Erosion started in the late Mesozoic and probably continued until early Tertiary. The Wallowa Mountains remained above the surface of the country, most of which had been reduced to low relief. Then there was a period of uplift and our Wallowa Mountains which were formed much later, are more rugged than the earlier ones. There's more, but wouldn't you rather read it for yourself? Let me know and I'll bring it or anything else in the Library to luncheon or a Friday night meeting.

Very few books in "Your Library and Mine" are written in an elementary style and illustrated with attractive colored plates. This type appeals to a person examining a new science for the first time. Eye appeal is not to be ignored. My first thought is Fenton's book on rocks. Does anyone have a copy? If you do and not using it much, let's add it to "Your Library and Mine." Plans are under way for publication of a complete list of contents. Of this you will hear more later.

Yours in the interest of "Your Library and Mine,"

May R. Bushby

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PUBLICITY

Publicity Chairman, Bruce Schminky, reports that during the past year the Society has received about thirty-six inches of space, divided about equally between the Oregonian and the Oregon Journal.

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NEWS OF MEMBERS

Word has just been received by Mr. and Mrs. Leo Simon of the engagement of their daughter, Miss Lotus Simon, to Mr. Wilmer J. Miller of Lawton, Oklahoma. Mr. Miller is working toward his Doctor's degree in Immuno Genetics (Dictionary, please) at the University of Wisconsin. Lotus, many of us know, has been working toward her doctorate in zoology on a fellowship at the same university.

* * * * *

It's always good to hear from old friends. We thought we had lost the Bartows for sure, when Norris Stone pops up with a letter he received from Mrs. Bartow which contained among other interesting things, many good wishes for old friends and members of GSOC. Her letter, in part, reads:

"Looks like the Bartows aren't interested in Portland activities but it isn't so. We've finally found a house here but had to go into a brand new neighborhood which is a disadvantage to would-be ornithologists. However, the floor plan is close to what we enjoyed in Portland so it shouldn't take us too long to feel at home inside. As soon as we get official address we'll send it on to you. . . .

"Don't imagine we'll get up for the banquet as Leslie works Saturday mornings and distances toward midnight seem awfully long to old folks like us! Know you'll all have a nice time, and best wishes to all!"

Their present address is given as 517 N. 4th Street, Corvallis, Oregon.

* * * * *

News from Bend reveals that Phil F. Brogan, GSOC member who watches the rimrock ramparts east of the Cascades for the News Letter, is finally reconciled to the status of an "alleged amateur geologist" and refers all professional matters to his son, J. Philip Brogan. The younger member of the family completed his work for his master's degree in geology at Oregon State College last summer and is now an oil geologist with the California Company in Denver, Colorado. He is being transferred to Bismarck, North Dakota, in the early spring to assist in explorative work in the newly discovered Williston oil basin.

* * * * *

From Greenwich, Connecticut, birth of a son, Courtland L. Booth II, to Mr. and Mrs. Charles Frazier Booth, their second child and grandson of the late Dr. and Mrs. C. L. Booth.

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G.S.O.C. LUNCHEON, FEBRUARY 14, 1952

There were present Vice President May R. Bushby, presiding, Leo F. Simon, assistant to the presiding officer and vendor of banquet tickets, Mrs. Baldwin, Mrs. Conner, and Miss Hughes, besides Messrs. Baldwin, Elder, Keen, Libbey, Matthews, Schminky, Stanley, and Stone. . .Being St. Valentine's Day, the table was decorated with red hearts and hyacinths. . .The high point of the meeting was the presence of Miss Hughes who has been unable to be with the group for some months. It is hoped that she will find it possible to attend the luncheons more often. . .A piece of fused volcanic rock was the first specimen to claim attention. It was found "in a Triassic area on Williams Creek in southwestern Oregon, in the SW¼ sec. 3, T. 39 S., R. 5 W. The specimen was found in a valley fill at a depth of 17 feet. Volcanic rocks, very old and highly compressed, are found in this area. A porous rock, such as this, could not have existed under such treatment. This was probably formed by lightning striking the rock ledge.". .Mr. Libbey announced the coming meeting of the Oregon Academy of Science in Eugene Saturday, February 22. . .Mr. Matthews had a small vial containing platinum, palladium, osmium, and iron from northern California. . .A photograph of "Golden Gate fog" from the front of the home of Mr. and Mrs. E.N. Bates was shown; it looks very much like Portland fog. . .There was a general discussion of the trip through the carborundum plant at Vancouver, Washington, on Sunday, February 10. . .Vice President Bushby had to rush back to her office to keep the Bonneville Administration from falling apart. . .Leo Simon came from the head table to mingle with the "common herd"; ticket selling seemed to be uppermost in his mind.

O.E.S.

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CAVE OF THE OUTLAWS

Mr. Earl Minar, at our Friday evening February 8 meeting, made an announcement regarding the movie, "Cave of the Outlaws," now showing in Portland. According to Mr. Minar, it is a fine exposition of the Carlsbad Caverns and one that GSOC members will not want to miss. Look out for it in your neighborhood.


FEBRUARY 22, 1952
SEVENTEEN
Geological Society
of the
Oregon Country
Annual Banquet
1935 - 1952

A SALUTE TO OUR OFFICERS

We salute you our officers
Of '51 - '52.
For your patience and loyalty
The whole year through.
You have served us well,
You have taught us much
With pictures, and lectures,
And trips, and such.

Good health and good luck,
In all that you do,
Is our earnest wish
For each one of you.

——***——

Let's All Sing

HAPPY BIRTHDAY DEAR G-SOCS

Happy Birthday, dear G-socs,
Happy birthday to you,
Happy birthday, dear G-socs,
Happy birthday to you.

Happy birthday to our guests,
Happy birthday to you,
We're glad to have you with us,
Come again soon, please do.

Happy birthday everybody,
Happy birthday to you.

——***——

THE OREGON COUNTRY AINT WHAT SHE USED TO BE
(Tune: "The Old Gray Mare")

Oh, the Oregon Country aint what she used to be
Aint what she used to be, aint what she used to be
The Oregon Country Aint what she used to be
Many long years ago.
Many long years ago! Many long years ago!
Oh, the Oregon Country Aint what she used to be
Aint what she used to be. Aint what she used to be
The Oregon Country Aint what she used to be
Many long years ago.

So we take our books and study geology
Study vulcanology, geomorphology,
To learn this country's geochronology
Of many long years ago. (Repeat Chorus)

And we take our picks and dig in the Eocene,
And the Oligocene, into the Miocene.
We look for fossils in the Pliocene
Of many long years ago. (Repeat Chorus)

Now when we sing of the ichthyosaurus,
Or Rex tyrrannosaurus, who lived long before us
We want everyone to join in the chorus
Of many long years ago. (Repeat Chorus)

Now if you're a person of slight notoriety
And sing this song with complete sobriety,
You ought to be a member of our Society
With many long years to go. (Repeat Chorus)

For the Oregon Country Aint what she used to be -
(Repeat first verse)

——***——

BANQUET COMMITTEE

Decorations
Mrs. Estella I. Conner
Miss Ada Henley

Entertainment
Mrs. A. W. Hancock
Mr. Clarence D. Phillips

Gifts
Mr. and Mrs. H. Bruce Schminky

Hospitality
Mr. Robert F. Wilbur

Interpreter (Menu)
Mr. A. D. Vance

Photography
Mr. Edward D. Bushby

Programs
Mr. and Mrs. Edward D. Bushby

Speaker and Master of Ceremonies
Mr. Ford E Wilson

Tickets and Seating
Mr. and Mrs. Leo F. Simon

General Chairmen
Mr. and Mrs. William F. Clark

O F F I C E R S

1951	1952
PRESIDENT	
Mr. Ford E Wilson	Mr. Norris B. Stone
VICE PRESIDENT	
Mrs. May R. Bushby	Mr. Raymond L. Baldwin
SECRETARY	
Miss Ruby M. Zimmer	Mrs. Johanna Simon
TREASURER	
Mr. Norris B. Stone	Mr. Robert F. Wilbur
EDITOR	
Mr. Orrin E. Stanley	Mrs. Jane Erickson
DIRECTORS	
Mrs. Leslie W Bartow	Mr. Rudolph Erickson
Dr. Edwin T. Hodge	Mr. E. Cleveland Johnson
Mr. E. Cleveland Johnson	Mr. Louis E. Oberson
Mr. Louis E. Oberson	Mr. A. D. Vance
Mr. Leo F. Simon	Mr. Ford E Wilson

M E N U

DINNER NO. 1

Archaeopteryx puritanensis
et
conglomerate filling
or
Brecciated Teleost

Hemispherical Ulexite

Plicatostylus gregarious
(var. sinatriana)

Agates Lava flow, sliced

Hydrothermal solution or Liptoni Godfreyensis

* * * *

DINNER NO. 2

Turkey and dressing
or
Salmon Loaf

Mashed Potatoes String Beans

Relishes Sheet cake

Coffee or Tea

———***———

P R O G R A M

Seventeenth Annual Banquet

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

Dr. Arthur C. Jones
Master of Ceremonies

"Happy Birthday" song . . . . . Everybody

DINNER

BUSINESS MEETING

"RETROSPECT" . . . . . President Ford E Wilson

"1952 -- WHAT?" - President Elect Norris B. Stone

Intermission

"GEOLOGICAL GREMLINS"
By
Dr. Lloyd W. Staples
Eugene, Oregon

"Goodbye, Rock Hunters, Goodbye"
(Tune: Goodbye, My Lover, Goodbye) Everybody

Our banquet now is at an end
Goodbye, Rock Hunters, goodbye.
We'll work a year and meet again
Goodbye, Rock Hunters, goodbye.
Geodes and fossils, banquets and wassails
Campers with "tossles,"
Goodbye, Rock Hunters, goodbye.

GEOLOGICAL NEWS LETTER

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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Secretary:	Mrs. Johanna Simon	7006 S.E. 21st Avenue	2	EM 0549
Treasurer:	Mr. Robert F. Wilbur	2020 S.E. Salmon Street	15	VE 7284

Directors: Mr. Rudolph Erickson (1955) Mr. E. Cleveland Johnson (1954)
Mr. Louis E. Oberson (1953) Mr. A. D. Vance (1953)
Mr. Ford E Wilson (1954)

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	F. W. Libbey	Ford E Wilson		
	A. D. Vance	Mrs. Albert Keen		
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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - APRIL 1952

April 3 Thursday — Weekly noon luncheon.

April 10 Thursday — Weekly noon luncheon.

April 11 Friday — Mr. Albert Moore, Assistant District Engineer of the Surface-Water Branch, U.S. Geological Survey, will talk on "Surface Water - Why it is Measured and How." Equipment will be demonstrated and slides will be shown. (Regular evening meeting at Library Hall, 8:00 P.M.)

April 17 Thursday — Weekly noon luncheon.

April 24 Thursday — Weekly noon luncheon.

April 25 Friday — Regular evening meeting at Library Hall, promptly at 8:00 P.M. The Standard Oil Company will furnish us two color movies showing many of the places to which you have been and some of those still to be enjoyed:

"This is Oregon"
"Washington the Evergreen State"

April 27 Sunday — MONTHLY FIELD TRIP: The field trip for April will be to the joint areas of Longview and Kelso. The leaders will be Stanton Carter of Longview and Reynolds Ohmart of Salem.

Members will meet Sunday morning, April 27, at 10:00 A.M. at the Longview road junction with the Pacific Highway just south of Kelso. Reynolds Ohmart will then lead the caravan into Longview where Mr. Carter will take over. Stops are planned on Coal Creek, Mosquito Creek, and La Meister Creek (hope the last spelling is correct). "Loot" seems plentiful but bring heavy hammers and chisels as some of the formations are quite hard. Those who have a copy of "Geology of the St. Helens quadrangle" by Wilkinson, Lowry, and Baldwin may like to read up on the area before the trip and should bring their copy along. Be sure you have your car placards with you.

May 9 Friday — Circle this date on your calendar for a talk by Mr. and Mrs. Linwood B. Cornell. They will show and describe their 3-months trip to South America. The slides taken while flying over the Andes have been reported to be especially outstanding.

* * * * *

NEW MEMBERS

Mr. and Mrs. Ray S. Golden
1966 S.W. 5th Avenue
Portland 1, Oregon
BRoadway 2078

Mr. Godfrey Mueller
7117 S.E. Harold Street
Portland 6, Oregon
TAbor 4724

Mr. and Mrs. Toralf Ericksen
Joan and Judy
2934 S.E. 50th Avenue
Portland 6, Oregon
EMpire 0701

Mr. and Mrs. Murray R. Miller
1018 Promontory Avenue
P.O. Box 465
Oregon City, Oregon
OC 6724

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DR. ETHEL SANBORN HONORED AT OREGON ACADEMY OF SCIENCE

GSOC members and friends will be pleased to hear that Dr. Ethel Sanborn was one of three receiving honorary citation for her outstanding service to science at the Oregon Academy of Science meeting held at Eugene, February 22,23, 1952. Dr. Sanborn, as most of us know, is "Paleobotanist Emeritus" of Oregon State College. Others receiving honors were Dr. Helen Gilkey and the late Dr. Lawrence E. Griffin of Reed College.

Dr. Ewart Baldwin gave an address, "Geology of Saddle Mountain," which he has generously allowed us to reprint in this issue. Mr. Lloyd L. Ruff was elected chairman of Geology and Geography Section and Mrs. Ted Gordon of Salem was made a membership representative. Other GSOC members in attendance were F. W. Libbey and Leo Simon.

J.E.

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PRESIDENT STONE'S STANDING COMMITTEES

Your president wishes to emphasize to all GSOC members that your committee chairman represents your liaison with his particular division of this Society. He wants you to feel free to pass on to such chairman any suggestions you may have.

Committee chairmen in turn are reminded by your editor that the pages of News Letter are open for publicity on any idea he or she wishes to promote. You are urged to avail yourself of this cooperation. Committees and chairmen are as follows:

Committee	Chairman	Committee	Chairman
Field trips	Leo Simon	Library-social	Mrs. Edw. Bushby
Program	Tom Matthews	Historian	Miss Ada Henley
Exhibits	Lon Hancock	Research	A. D. Vance
Membership	Albert Keen	Service (reading)	Margaret Steere
Museum	Dr. J.C.Stevens	Public relations	Clarence Phillips
Markers-publicity	H. Bruce Schminky	Housing	To be named

J.E.

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A CHRISTMAS TREE IN AUGUST

There were fossils to be dug on the morrow from the nearby Clarno hills. And sleep one must . . .We were snuggled deep in our sleeping bags, yet there was no chance of sleeping.

Desert winds were romping and rollicking noisily about. Suddenly, Mother Wind swooped down from the mesa to our small sheltered valley, spanking the breezes ahead of her, around the hill and out across the wide desert. The silence, deep, profound, was vibrant with the tinkling of myriad harpstrings and if one listened closely. . . yes, one was certain to hear the hymn of the seraphim. The stars floated above, just out of reach, in a sea of dark blue sky. Desert air, heavy with scent of sage, caressed the cheek. And juniper -- there must be juniper near! A turn of the head and there it stood, tapering into the night. Star spangles twinkled and shone through its branches. Never was there a more beautiful Christmas tree!

Jessie Buoy

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All members are urged to pay dues **NOW** so your Secretary can compile and your News Letter can publish our membership list!

THE GEOLOGY OF SADDLE MOUNTAIN CLATSOP COUNTY, OREGON

By
Ewart M. Baldwin
University of Oregon

Saddle Mountain, whose elevation is 3,283 feet, is the highest peak in northwestern Oregon. The Mountain is reached by way of the Sunset Highway and an access road that branches off along the upper Necanicum River. The peak rises precipitously nearly 2,000 feet above gently rolling hills shaped by the Lewis and Clark and Young rivers that flow westward and Fish Hawk and Humbug creeks that flow eastward to the Nehalem River.

The geology of the mountain has been summarized by Robert A. Layfield (1937) in an unpublished report submitted to the National Park Service. He concluded that Saddle and Humbug mountains are eroded volcanic cores of palagonitic basaltic breccia with Saddle Mountain the main center of extrusion. He concluded that the breccia chilled subaqueously but not necessarily submarine, and that the dikes were later than the volcanic breccia. Warren, Norbisrath, and Grivetti (1945) mapped basaltic rock of this type and considered it to be of Miocene age and equivalent to the Columbia River basalt. They also considered the present peaks to be centers of extrusion and suggested that the lavas were not continuous.

Between the two studies most of the pertinent facts concerning Saddle Mountain have been established as there is little disagreement concerning age of the basalt but it is the purpose of this paper to discuss distribution and mode of formation of the peaks as they now exist.

The rock in Saddle Mountain is a basaltic breccia which shows rude stratification and a north to northwest dip of approximately 10 degrees. An occasional pillow indicates subaqueous extrusion and proximity to the sea, which, with continuity of rock type, suggests submarine extrusion. The breccia is approximately 1,300 feet thick and overlies sediments of the Astoria formation. The mass is interlaced with thin dikes which, as pointed out by Layfield, are later than the mass. These dikes seldom exceed 10 feet in thickness and are generally 1 to 3 feet in thickness.

Although pillows are poorly formed, the conclusion that the mass is submarine is substantiated by a comparison with the texture of the submarine Siletz River volcanic series (Snavely and Baldwin, 1948) which likewise has vast areas of breccia with a few pillows in some places and abundant pillows in other places.

The surrounding peaks, Humbug Mountain to the south, Onion Peak and companion peaks to the southwest, and Wickiup Mountain to the north, are also composed in large part of similar breccia. The pillow basalts in Wickiup Mountain and volcanic breccia near the Astoria city reservoir have been traced eastward to the subareal flows of the Columbia River basalt at Bradley State Park a short distance to the east. It is suggested that the shoreline during the time of extrusion was a short distance to the east of Saddle and Humbug mountains and that most of Clatsop and Tillamook counties were beneath an arm of the sea at the time of extrusion and that a sheet of submarine breccia covered almost the entire area. It is possible that the lava was thicker near the submarine vents but these are in many instances difficult to locate as it is apparent that the small dikes in Saddle Mountain are not the feeders but, instead, cut the flows whereas large dikes are laid bare in the intervening areas between the peaks that might have been feeders.

The location of the present streams need not have been dictated by the presence of feeders, for the highest rocks on Saddle Mountain are still submarine which would indicate that the drainage has been superimposed upon the rock now visible. Lowry and Baldwin (1952) have discussed the age of sediments that overlie the Columbia River basalt flows and breccia between Clifton, Oregon, and Astoria. These beds evidently have been stripped from the basalt to the south. It is probable that consequent drainage was superimposed from this post-basalt sheet of sediments. As post-Columbia River basalt deformation raised the area surrounding Saddle Mountain, the streams cut through the breccia into the soft Astoria sediments beneath. Undercutting of the breccia and slumpage of blocks has facilitated the retreat of steep slopes thus widening the valleys and leaving residual masses of breccia as peaks.

Saddle Mountain, Wickiup Mountain, and Nicolai Ridge are remnants of the upturned limb of a syncline whose axis parallels the lower Columbia River near Astoria. Nicolai Ridge is composed of subareal flows of basalt that plunge beneath the Columbia River to the north but attain an altitude of 3,000+ feet at Nicolai Peak. The altitude of the base of the breccia in Saddle Mountain is approximately 2,000 feet whereas the base of the breccia in Onion Peak is much closer to sea level. Thus it is evident that Saddle Mountain owes its prominence in large part to post-Columbia River basalt deformation and uplift rather than to an abnormally thick section of breccia, for the basalt is as thick in Onion Peak and Wickiup Mountain.

Saddle Mountain is considered to be an erosional remnant of a once widespread series of submarine volcanic breccia coextensive with the Columbia River basalt of Miocene age. During uplift the streams which had probably been consequent upon the surface were incised, cutting through with little reference to vents and forming the present broad valleys by retreat of the steep slopes.

References

Layfield, Robert A.
1937 Unpublished report.

Lowry, W. D. and Baldwin, E. M.
1952 Late Cenozoic geology of the Lower Columbia River Valley, Oregon and Washington: Geol. Soc. America Bull., vol. 63, pp. 1-34.

Snavely, P. D., Jr., and Baldwin, E. M.
1948 Siletz River volcanic series, northwestern Oregon: Am. Assoc. Petroleum Geologists Bull., vol. 32, pp. 806-812.

Warren, W. C., Norbisrath, Hans, and Grivetti, R. M.
1945 Geology of northwestern Oregon: U.S. Geol. Survey Prelim. Map 42, Oil and Gas Inv.

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GOSHEN "FIND" AT SALEM GEOLOGICAL SOCIETY BANQUET

Our old friend, the Goshen "Salamander," or whatever it is, made its appearance at the annual banquet of the Salem Geological Society held there on March 7. The Society's president, George Moorhead, stated that his half of the find is being forwarded to Dr. A. S. Romer of Harvard University for identification. GSOC member, Reynolds Ohmart, it will be recalled, participated in this discovery and has the top layer of this unusual specimen. Another Salem Society member has also found one of these salamanders at Goshen.

President Norris Stone, Leo Simon, and R. Erickson, GSOC members who attended from Portland, report that the Salem Society has an up-and-coming organization, close

GEOLOGY OF LOOKOUT POINT DAM

A large and very interested group of members and guests heard, at the regular meeting on March 14, Library Hall, another in a series of talks on engineering geology of Northwest projects. The speaker was our member, Mr. Paul W. Howell, resident geologist at Lookout Point Dam. Mr. Howell is one of our younger geologists who are setting the foundation of their profession by working on projects in this state.

The dam is across the Middle Fork of the Willamette, some 20 miles southeast from Eugene, Oregon. Mr. Howell's talk was largely a factual account of the rock strata and structures forming the foundation and abutments and the engineering problems involved. The rocks of the area consist of about 70 percent pyroclastics (fragmental volcanic material cemented by tuff) and 30 percent lava types. An unusual opportunity to study them was afforded in the many excavations made for the Southern Pacific railroad relocation. Natural rock outcrops are relatively few because of the extensive soil mantle and abundant vegetation.

All of the dam is founded on bedrock except the left (or south) abutment. A massive andesite flow breccia forms the right abutment and this, with tuffs and porphyritic augite basalt, occur under the present river channel. Mr. Howell described one major and one subordinate fault zone transecting the dam axis but stated that they appeared to be competent to support the structures. The left abutment consists of a thick clay and talus layer resting on two gravel terraces which in turn rest on bedrock.

Several interesting features were encountered during excavation for the concrete structures and earth fill section across the present river channel. Loose river gravel and sand rested upon a cemented layer of the same material. Here was discovered part of a mammoth tusk by Mr. Del Snyder while visiting the site. When finally exposed, the bedrock displayed pronounced channeling, some river-cut grooves being as much as 12 feet deep.

The quarry from which rock, a diabase, for concrete aggregate for the dam is obtained was described briefly. The speaker's first hand knowledge of the geologic structures, the rock strata, and the engineering problems permitted him to present a clear-cut picture of the dam's geology. His discussion was greatly enhanced by projection slides.

Ford E Wilson

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LUNCHEON MEETING - FEBRUARY 28, 1952

Highlighting this luncheon meeting was discussion regarding Science Meeting at Eugene by Messrs. F. W. Libbey and Leo Simon, commented on elsewhere this issue. . . . .The soup, which was delicious, got cold as we perused the Bushby's most excellent photos of our recent annual banquet, these also appearing herein. Past president Ford Wilson told of a display arranged by him of some eighty minerals at the Museum of Science and Industry which contains all or nearly all of the chemical elements. . . . .A sample of gilsonite was passed around by Tom Matthews. . . . .Mr. Al Vance showed us an excellent collection of marine fossils from sandstone formation of Topanza Canyon, L.A., being part of the loot brought back by him on his recent visit there. . . . ."Luring" samples from Sunset Highway locations to be visited on Society's field trip March 16, were passed around by President Norris Stone. . . . .Mrs. Eleanor Gordon showed us some crystals from Coffin Butte near Camp Adair. . . . .Others present were Estella Connor, Jane Erickson, and Messrs. Stevens, Elder, Erickson, Shirk, Kelham, Schminky, Bushby, Wilbur, and Keen. J.E.

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NEWBERRY CRATER CHARCOAL FOREST DATED

By
Phil F. Brogan

Giant Newberry Crater of the Deschutes plateau, a short distance east of the snow-blanketed Cascades, was the scene of a volcanic eruption about 2,000 years ago, it has been determined through the use of science's newest wonder, the radiocarbon "clock."

Announcement of the age determination of pumice covering charcoal trees found in a road cut between Paulina and East lakes was made earlier this year by Dr. Howel Williams, head of the University of California department of geology. The charcoal trees, buried under about four feet of pumice, were discovered in the 1951 field season by a Deschutes National Forest road construction crew. Dr. Williams visited the crater, obtained some of the samples and sent the charcoal to Dr. W. F. Libby of the Institute of Nuclear Studies, University of Chicago.

Dr. Libby estimated the age of the trees, through the radiocarbon method, at 2,054 years, with a possible plus or minus error of 230 years. "Let's call it 2,000," Dr. Williams said. He added:

"This gives the age of the last pumice eruptions in the Newberry caldera. I am almost certain that the pumice was discharged by the Big Cone, which rises from the west shore of East Lake."

Dr. Williams pointed out that it was Dr. Libby who also dated the pumice covering the sandals in the Fort Rock cave as 9,053 years, with the 230 plus-minus correction to be applied. "This means that pumice eruptions from the Newberry vents continued for a long period, some before and some after the big blowout of Mount Mazama," Dr. Williams said.

In constructing the road, the forest crew found a mass of charred wood in a deep cut on a slope facing East Lake. A study of the cut revealed that the trees, apparently jackpines of the same species found in the caldera today, were burned by the hot pumice. In the formation were chunks of welded pumice, or tuff, that had probably been blown from a crater vent.

Absence of pumice on the Newberry obsidian flow, not far from the place where the charcoal was found, had led to the belief that the obsidian spilled from a vent high on the southern slope of the caldera following the Big Cone eruption. The 2,000-year age for the charcoal pushes the age of the last Newberry pumice eruption back into the past farther than generally expected. Earlier studies had led to the belief that the caldera, which cradles East and Paulina lakes, was the scene of pumice blasts in the past few hundred years. Geologists believe that the parasitic cone eruptions on the massive flanks of Newberry, a giant shield volcano, occurred after the summit vents were plugged.

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LUNCHEON MEETING - MARCH 6, 1952

President Norris B. Stone welcomed the following members: Mrs. Edward Bushby and Mrs. Ted Gordon; Messrs. Libbey, Erickson, Keen, Elder, Wilbur, Shirk, Vance, Simon, Matthews, Schminky, and Bushby. Specimens shown: By Mr. Albert Keen, a specimen from Silver City which Mr. F. W. Libbey identified as quartz; complex sulphide from Montana by George V. Elder; fossil shells from Nehalem River and East Dairy Creek by R. Erickson.

J.E.

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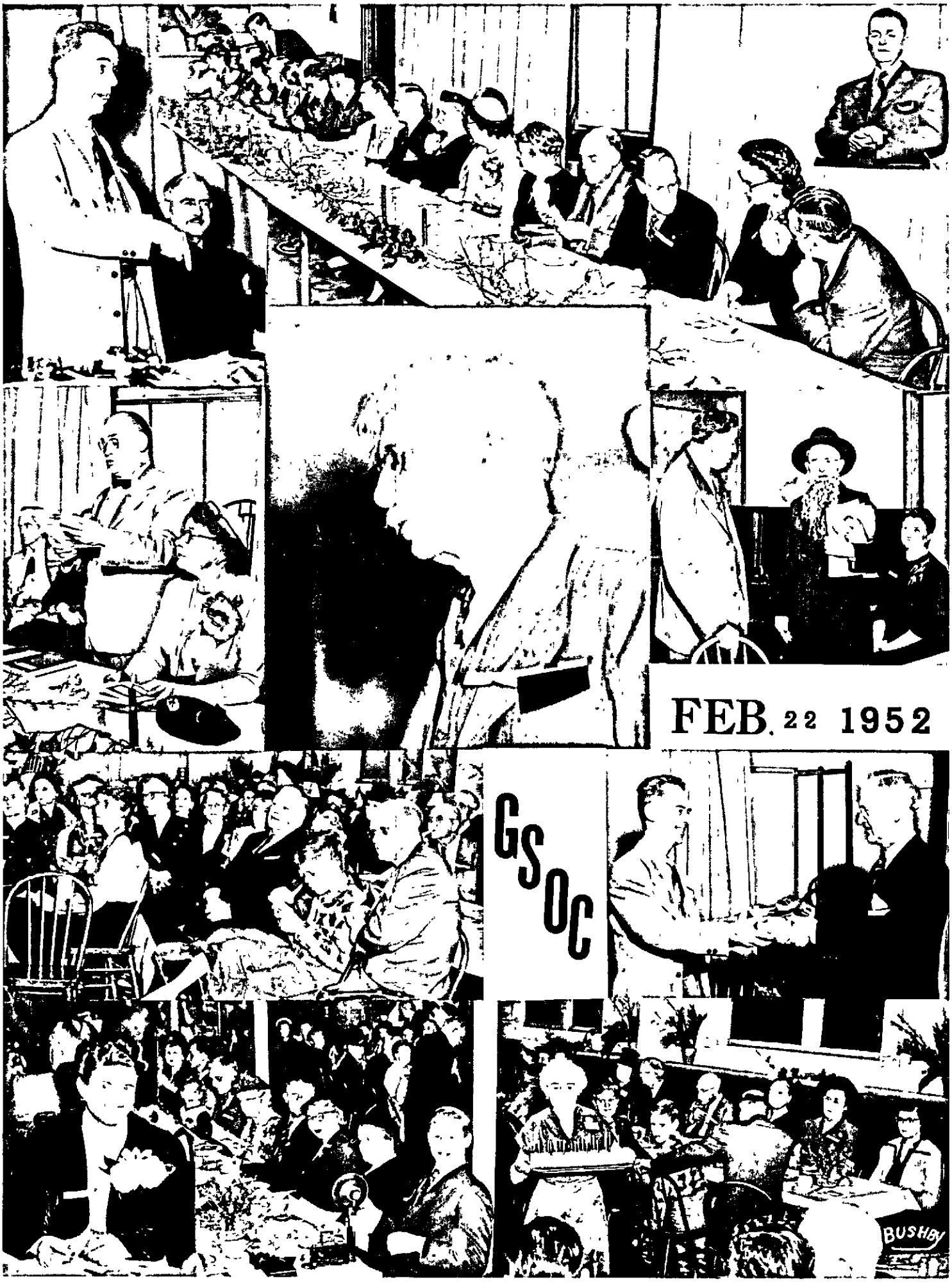
FEB. 22 1952
GSOC
BUSHBY

17th Annual Banquet

CARBORUNDUM COMPANY TRIP, VANCOUVER, WASHINGTON
February 16, 1952

The weather man ordered one of his best February days for this outing. It was dry, the sun shining, just enough to make us think of Spring. The Clarks, Mrs. Estella Conner, and the Bushbys had been gathering pussy willows for the banquet decorations, then joined a good crowd at the Carborundum Plant. Your reporter counted 50, but people were bobbing around and that's only approximate. Interest was whetted immediately by being advised that the lovely specimens of carborundum crystals laid out were ours for the taking. We didn't notice any bashful souls - at least a few looked heavier upon leaving than when they arrived. We were divided into three groups, each group having its own leader.

It was in 1891 that Dr. E. G. Acheson, a chemist, created silicon carbide crystals, a hitherto unknown compound. He applied to them the trade-mark "Carborundum." As soon as he discovered these crystals would cut glass readily, he knew he had a manufactured abrasive which would become extremely important to the world. He was successful in inventing ways of producing the product commercially. This particular plant is the only one west of the Mississippi.

We were told that "Carborundum" is manufactured from a batch of coke, quartz, and sawdust. The quartz comes from quarries near Spokane and the coke from California. We saw the big crushers which crush the quartz. A series of scales are set at amounts required of the different ingredients. Then the scales automatically discharge that amount into the surge bin. The surge bin in turn discharges into a mixer which, to me, resembled a concrete mixer. For success, the batch has to be perfectly proportioned. If any scales are not in good working order, a board automatically lights up showing trouble.

The furnace room proved extremely interesting. There are 15 furnaces, of the open type. To set up the furnace, the firebrick and iron gratings which form the sides are raised into position. The mix is loaded into the furnace. A core of the graphite runs the length of the furnace and is the carrier of electricity. The furnace is heated to around 4,000 degrees Fahrenheit. Warm, eh? We saw one in full blast and it is a beautiful sight. Many of us were sorry we couldn't use our cameras for a spectacular picture. The run is 36 hours. After the electricity has been turned off at the end of that time, the furnace cools. Then sidings are removed. The crystals are later crushed, pulverized, and screened many times until a very fine abrasive powder is obtained.

Carborundum is now used in grinding wheels of all kinds, abrasive papers, and cloths. The control room was the last point to be visited. There we were each given a package which contained some sand paper, a small whetstone, and a booklet entitled "The Romance of Carborundum." After enjoying this exciting experience made possible by the courtesy and generosity of the officials of the Carborundum Company in Vancouver, we can further appreciate reading in this booklet the following:

> "Romance to most of us deals with life, love, and adventure, unless we have delved into what might properly be called the romances of industry - the romances of steel, aluminum, of chemistry and metallurgy, or radio and electronics, and so many other things which have played such an important part in the progress of mankind and have so enriched our living."

Your reporter was almost convinced this is the best type of romance -- almost. A thank-you to Mr. William Clark who had the inspiration for this particular trip and to Mr. Ford Wilson who made the final arrangements.

May R. Bushby

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GSOC FIELD TRIP MARCH 16, 1952

By 9:30 A.M. a line of 21 cars assembled at the west end of Sunset Tunnel and members were scrambling up and down the roadway banks intent on the many concretions that weathered out of the shale. Some of the specimens were Nemocardium weaveri, Dentalium conradi, Epitonium, Natica, Polinices, Acila nehalemensis, fossil wood with Toredo, and some Foraminifera. At the west end of the tunnel there was exposed a fresh surface of shale by excavations of the Empire Expanded Shale Company. Geology hammers did valiant work in unmasking Gastropoda, Pelecypoda, Scaphopoda, and Foraminifera. Many samples of the expanded shale joined the caravan. These shales are a part of the Keasey formation of lowermost Oligocene age.

The members now voiced their desire to 'Eat,' so we traveled on to Sunset Camp, an abandoned CCC camp. On the way to the lunch site Mr. Vance found several concretions containing fossil crabs in a roadcut a short distance west of the tunnel. Of course everybody was anxious to obtain specimens. After lunch, led by Mr. Vance, back they went. Everyone seemed to enjoy a successful hunt.

The next stop was along the Vernonia road at a shell location. Many excellent specimens were obtained. Then we traveled along the Buxton road and stopped near a large railroad trestle. Members of the group walked back to the cut to pick up more concretions. Several types of shells were found weathered out of the shale. Leaf fossils were found in some of the concretions.

The last part of the trip was led by Mr. Erickson, through Beaverton and Tigard to a roadcut on the new Salem highway, to examine a deposit of rounded rocks. Mr. Erickson explained that these gravels are believed to have been carried in by the Spokane flood. Gravels extend east from here almost to Oswego Lake. A mile or so farther a gravel pit was visited. It contained the same type of rocks. Several granite erratics were picked up and also limonite believed to have been carried from the limonite location near Oswego by the flood. Next the caravan stopped at a sand pit near Cipole to examine coarse sand apparently deposited at the same time as the gravels. The sand contained small pieces of granite erratics.

The final stop was made at the home of the Norris Stones, where we were greeted by the Bartows from Salem and also the Simons and the Jones, who were somehow lost from the caravan. (It is rumored there is a movement on foot to put Leo in the middle of future caravans.) Over forty members of the society enjoyed the hospitality of the Stone's coffee and----, after which short talks were in order. Dr. Jones gave a general outline of the geology of Oregon from the Mississippian in the Paleozoic, through the Mesozoic and up to the Pleistocene in the Cenozoic. Mr. Vance gave us detailed information of the Oligocene period when the shale in which we were digging had been deposited. Mr. Simon covered the flora observed during the day. Ford Wilson was on hand with his excellent microscope and many of us enjoyed looking at the day's collection of Foraminifera.

A vote of thanks was extended the Stones, and special thanks are due the trip committee, Mr. Simon and Mr. Erickson, for a well-planned and well-conducted trip and for arranging with the weather man for such a perfect day.

S.K.

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REALLY?

Did you hear about the geologist who was taking a vacation in Australia? He was doing a little rock collecting just by way of exercise when he fell down a steep cliff and sprained his ankle. In the hospital where he was being patched up, he was shocked into near insensibility when he overheard two of the nurses discussing his plight. "Did he come here to die?" asked the first. Greatly to his relief, her


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The members now voiced their desire to 'Eat,' so we traveled on to Sunset Camp, an abandoned CCC camp. On the way to the lunch site Mr. Vance found several concretions containing fossil crabs in a roadcut a short distance west of the tunnel. Of course everybody was anxious to obtain specimens. After lunch, led by Mr. Vance, back they went. Everyone seemed to enjoy a successful hunt.

The next stop was along the Vernonia road at a shell location. Many excellent specimens were obtained. Then we traveled along the Buxton road and stopped near a large railroad trestle. Members of the group walked back to the cut to pick up more concretions. Several types of shells were found weathered out of the shale. Leaf fossils were found in some of the concretions.

The last part of the trip was led by Mr. Erickson, through Beaverton and Tigard to a roadcut on the new Salem highway, to examine a deposit of rounded rocks. Mr. Erickson explained that these gravels are believed to have been carried in by the Spokane flood. Gravels extend east from here almost to Oswego Lake. A mile or so farther a gravel pit was visited. It contained the same type of rocks. Several granite erratics were picked up and also limonite believed to have been carried from the limonite location near Oswego by the flood. Next the caravan stopped at a sand pit near Cipole to examine coarse sand apparently deposited at the same time as the gravels. The sand contained small pieces of granite erratics.

The final stop was made at the home of the Norris Stones, where we were greeted by the Bartows from Salem and also the Simons and the Jones, who were somehow lost from the caravan. (It is rumored there is a movement on foot to put Leo in the middle of future caravans.) Over forty members of the society enjoyed the hospitality of the Stone's coffee and----, after which short talks were in order. Dr. Jones gave a general outline of the geology of Oregon from the Mississippian in the Paleozoic, through the Mesozoic and up to the Pleistocene in the Cenozoic. Mr. Vance gave us detailed information of the Oligocene period when the shale in which we were digging had been deposited. Mr. Simon covered the flora observed during the day. Ford Wilson was on hand with his excellent microscope and many of us enjoyed looking at the day's collection of Foraminifera.

A vote of thanks was extended the Stones, and special thanks are due the trip committee, Mr. Simon and Mr. Erickson, for a well-planned and well-conducted trip and for arranging with the weather man for such a perfect day.

S.K.

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REALLY?

Did you hear about the geologist who was taking a vacation in Australia? He was doing a little rock collecting just by way of exercise when he fell down a steep cliff and sprained his ankle. In the hospital where he was being patched up, he was shocked into near insensibility when he overheard two of the nurses discussing his plight. "Did he come here to die?" asked the first. Greatly to his relief, her

WHAT'S NEW IN READING

1. Late Cenozoic geology of the lower Columbia River Valley, Oregon and Washington, by W. D. Lowry and E. M. Baldwin. Published in the Bulletin of the Geological Society of America, volume 63, no. 1, January 1952.

The geologic history of the lower Columbia River is of particular interest to us Gesockers, for this is home territory and the region we are likely to know best. Most of us have been on field trips up the Columbia Gorge or along the lower Willamette Valley; we have speculated on the sequence of geologic events that took place; and we have heard no end of controversy on the age of the formations. Consequently, this article by Lowry and Baldwin which sums up the past and present views on these problems is of special significance.

The area described in the article extends from the Cascade Range to the Pacific Ocean, and includes the lower Columbia River Valley and the Willamette Valley as far south as Salem. The geologic history is traced from the eruption of the Columbia River lavas during the middle Miocene, through the Pliocene, Pleistocene, and into the Recent. There are 24 pages, including a locality map, geologic cross sections, and a geologic correlation chart.

A few free copies of this article are available in reprint form at the State Department of Geology and Mineral Industries at 1069 State Office Building.

2. Geologic guidebook of the San Francisco Bay counties, published by the California Division of Mines, Ferry Building, San Francisco, as Bulletin 154, 1951.

This is an interestingly written and bountifully illustrated collection of articles on the history, landscape, geology, fossils, minerals, industries, and routes to travel in the San Francisco area. There are 392 pages, maps, a glossary, and an index. Price is $2.50, postpaid.

3. The geology of the McMinnville quadrangle, Oregon, by Robert D. Brown. University of Oregon Master thesis, 1951.

Robert Brown is now geologist with the Fuels Branch of the U.S. Geological Survey in Portland. His thesis has 54 pages, and includes photographs, index map, correlation chart, and a geologic map of the quadrangle. The thesis has not been published, but a copy of it is in the library of the State Department of Geology and Mineral Industries where anyone interested is welcome to inspect it. We hope to publish a condensation of this thesis in the News Letter in the near future.

4. The Mother Lode Country, published by the California Division of Mines, Ferry Building, San Francisco, as Bulletin 141, 1948. Price is $1.00, postpaid.

This is a geologic guidebook along Highway 49, the Sierran Gold Belt. It includes strip road maps with accompanying descriptions of history and geology, logged carefully as to mileage, and numerous photographs. Although not a new publication, it is very interesting and has been enthusiastically recommended by our President, Norris Stone.

M.L.S.

Note:

Your editor is intrigued by the title of a new book just published by Oxford University Press, The life of vertebrates by J. Z. Young. The review labels it "a fascinating account of evolution in the broadest sense of the word." If any News Letter reader gets a look at it, we'd like to hear his opinion. J.E.

LEAP YEAR

By
J. Hugh Pruett

Within the last few weeks came that postfixed day of February which, once in four, transforms an entire year into a period of nervous apprehension for the more timid of masculine souls. Certain of the female persuasion assume leap year was instituted solely for them, and -- so some say -- take full advantage of this rare opportunity. But whatever the general opinion, leap year is not a social but an astronomical institution.

Most of the ancient peoples had very unsatisfactory calendars. The year of the Assyrians and Hebrews consisted of 12 lunar months, or 354 days, to which a 13th month was added every two or three years in an attempt to keep the calendar fairly in step with the seasons. The Mohammedan countries to this day use a 354-day year without a correcting leap-month. The Egyptians used a 365-day year from very ancient times. This was the best of all, although after 732 years mid-winter could come in some countries when the calendar said it was summer.

Many ancient scientists knew the true year was very close to 365¼ days. Julius Caesar in 45 B.C. established what has since been known as the Julian calendar. It has continued almost unchanged to the present. In this there are three years of 365 days, then a leap year of 366, an average of 365¼ days. The vernal equinox, "the beginning of spring," in Caesar's original calendar occurred March 25.

But the year is actually about 11 minutes less than 365¼ days. By A.D. 1582, the equinoxes had fallen back to March 11. That year Pope Gregory, after consultation with his astronomer Clavius, decreed the establishment of the Gregorian calendar, the one we now use. It is like the Julian excepting that during 400 years, three of the usual "fourth-years" are not leap years. These are the years divisible by 100 but not by 400. Thus 1600 and 2000 are leap years, while 1700, 1800, and 1900 are not. This revision makes the calendar only 26 seconds too long. There will not be an error of one entire day until a few thousand years have passed, a fact that need not worry us yet.

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OPERATIONS NATURAL HISTORY

With the approach of summer, we at the Oregon Museum of Science and Industry find our minds turning toward the great wide open spaces of Central Oregon. Who among us will ever forget our first annual expedition into the Clarno fossil country? Or the enthusiasm of the fourteen teen-age boys for those two glorious weeks of natural history study in the prairies? Or the selfless service rendered by the volunteer staff?

Perhaps some GSOC member has a son or daughter within the age range of 13 to 17 years who is eligible to become an expedition member. Or friends with children within this age limit who would be interested in taking advantage of this summer's exceptional program. Perhaps you belong to a service club which would be happy to sponsor three or four worthy campers. Application for 1952 Expedition membership may be procured at the Museum Office, 908 N.E. Hassalo Street, Portland 12, Oregon. Telephone EAst 3807.

Stanley H. Shirk, Director
OREGON MUSEUM FOUNDATION, INC.

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YOUR LIBRARY AND MINE

Your librarian is in a gay, hopeful mood. My first request for contributions was answered almost immediately by our President, Mr. Norris B. Stone, who donated Fenton's Book On Rocks. We do thank him sincerely and many of you will want to borrow it soon, I'm sure. I am happy to report two additional donations to the library. A thank-you to Mr. Rudolph Erickson for his thoughtfulness in procuring for us a copy of the January 1952 Standard Oil Company Bulletin which contains an interesting article entitled "Search for Oil"; and to the State Department of Geology and Mineral Industries for a copy of The Geological Society of America Bulletin, vol. 63, no. 1, January 1952, in which is an abstract from "Late Cenozoic Geology of the Lower Columbia River Valley, Oregon and Washington" by W. D. Lowry and E. M. Baldwin. A reference list on last page is very worthwhile.

While dusting through a ponderous volume by the West Virginia Geological Survey, published in 1939 (donated by Dr. John E. Allen), I decided it was a little deep for me, but wonderful for the specialists like F. W. Libbey, Ford Wilson, Leo Simon, et al. And there was The Scenic Treasure House of Oregon by Dr. Warren D. Smith and donated by the author "To his many good friends of the Geological Society. Delightful! Did you know that three silent architects "vulcanism, glaciation, and erosion" designed our scenic Oregon? One can feel Dr. Smith's trying to guide us as he begins by explaining how to appreciate scenery. We open the book to view a map dotted with points of interest: Three Sisters, Cabin on the Snake, Hole in the Ground, etc. This book is relatively elementary, and I would recommend it to all new comers of the Society who would like to get a picture of Oregon geology in a pleasant way and without wading through technical volumes. We remember with sadness that the author has already passed away but we remember with gladness our past association with him: his friendliness; his sharing of knowledge with us. Who wants to charge out this book? You do? I will bring it to you at a Friday meeting or at a Thursday luncheon. Just call me on CApitol 2123 or FIlmore 3361.

This is an SOS for a "lost" item - The Mineral Resources of Oregon, vol. 3, no. 3, May 1923, published by Oregon Bureau of Mines and Geology. We are advised by Mr. R. Erickson that Paleontology of the Marine Tertiary Formations of Oregon and Washington, vol. 5, pt. II, December 1942, by Charles E. Weaver is in print again. It is procurable at University of Washignton Press, Seattle; $13.50 for the 3-volume set.

I will spend two evenings a month at the Oregon Museum of Science and Industry for convenience of members who would like to come and get acquainted with our reading material. Dates will be decided when I get some reaction to this idea. It should be pleasant to browse there with a group of members.

Yours in the interest of Your Library and Mine,

May R. Bushby.

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MAMMOTH BONE AT THE DALLES

When the Morning Oregonian came out with the story of the "foreleg of mammoth bone" found near The Dalles on the Forrest Hay ranch, just as many Geesockers as read the article immediately were on their way to the spot to investigate; at least in spirit if not in actuality. Luckily, Mr. Sam Sargeant, geologist with the U.S. Corps of Engineers who gave such an interesting talk at one of our Friday night meetings recently on the geology of The Dalles dam, was on the spot and gave as his opinion, according to the Oregonian, that the mammoth was an adult, Imperator Americanus type, standing about 14 feet high.

We understand that Dr. Ewart Baldwin of the University of Oregon later made an investigation and that the site will be excavated and the results turned over to the University for display in its natural history museum.

HAVE YOU HEARD?

From the Monday Club at Forest Grove the report that they greatly enjoyed the talk made there on March 10 on the geology of the Forest Grove area by Dr. Arthur Jones? . . .From our Nation's Capitol, a pretty well confirmed rumor that Miss Ellen James will be back among us this summer in U.S. Geological Survey exploration of marine fossils on our own Oregon Coast? We're going to try to catch her long enough to talk to the Society at one of our Friday night meetings. . . .That the Ford Wilsons are planning a trip in April to capture photographically the cacti bloom of Arizona? . . .That the Al Vances have just returned from a southern California sojourn? . . . The Ray Baldwins fresh home from we-don't-know-just-where, but they look a little damp and we're going to find out more and have them tell us through the pages of the News Letter? . . .The Arthur Jones planning a European jaunt this summer? . . .Of the unpleasant experience for the Harry Travis family having their home entered by prowlers and several valuable items stolen? . . .That all GSOC wives who do not show up at Thursday luncheons are missing something (no reservations necessary)? . . .That Dr. Stauffer, geology instructor at Lewis and Clark College, and a group of his students invaded the John Day region this last week but found the going pretty cold? . . .That the weather didn't cooperate with Lon Hancock, either, who was in the Prineville region? . . .That our "east of the Cascades" reporter, Phil Brogan, reminds us that the heavy snows in the Ochoco are washing out a lot of agates, eggs, gems, and fossils? . . .That our trip leader, Leo Simon, got lost (yes, really) on his way back from the Nehalem-Dairy Creek region, our field trip Sunday, March 16, and had it not been for his knowledge of ornithology, dire results might have followed? Like a homing pigeon he came straight to where hot coffee and provender waited, the residence of President Stone in Glenmorrie, well, you know Leo. . . . That R. Erickson has found another "what is it?" But more about this in next issue.

J.E.

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RUTH E. COATS

The Leo Simons have a letter from GSOC member Ruth E. Coats who will be remembered for her outstanding shell collection and generosity in sharing it. Ruth is getting settled in her new Carlsbad, California, home (3846 Skyline Road). She has not yet located many collecting spots there but soon hopes to get into the swing. She included with her letter a communication that she received from Museum Paleontologist Takeo Susuki from the Department of Geology, University of California at Los Angeles. Inasmuch as it contains matters of interest to all of us, it is quoted in part below:

"Dear Miss Coats:

> The two boxes containing specimens from Nye Shale and Astoria formation have been received. . . .The collections here at the University are quite meager and we would like very much to acquire additional material from the Pacific Northwest. Would you be interested in making exchanges or sending unprepared material freight collect for fossils that you may wish to have from Southern California? Do you know any other Paleontologists or shell collectors in the Pacific Northwest who would be interested in exchanging fossils? . . .
>
> Sincerely,
> Takeo Susuki, Museum Paleontologist"

Apparently this is the same young man who so ably assisted Mr. Al Vance on his recent explorations in California, about which we hope to hear more in an article Mr. Vance has promised the News Letter.

J.E.

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A BATTLE OF SEASONS

A lake that empties itself with a bang and a roar that outbooms Bikini is described by Mrs. Ida B. Alseth in a facinating article "Self-Emptying Lake" in the January 1952 number of Natural History. This is Lake George on the fringes of Alaska's Chugach Mountains. Mrs. Alseth describes it as a "Lady Wonder Lake kicking up her heels and pulling the plug to Nature's bathtub."

Along the precipitous cliffs that hem Lake George lies Knik Glacier barring the escape of the lake's waters until warm weather. Then, the melting ice releases a deluge that sends huge chunks of glacial ice hurtling through the gorge gouging out a pathway some five miles long through the ice.

The event is presaged by an ear-splitting warning - the breakthrough of the impounded waters. Higher than a cataract they rise in a crashing inferno of ice and spray. In a matter of minutes great chunks rush in a mad melee through the newly cut gorge.

The effect of this wild rush upon the flood plain below, its influence on the topography of the area, the problems it creates with a series of railroad trestles where crews work day and night clearing blocks are graphically described by Mrs. Alseth. Lake George has been ranked as among the wonders of the world and a movement started at one time to set the area aside as a monument. Scientific observation and special study is being made of the area by the University of Wisconsin.

Apparently it will not be possible to plan a GSOC trip into the region to view this stupendous show quite yet, for according to Mrs. Alseth, it is a grim trip out to a vantage point where it can be seen. This, even though Lake George is but 40 air-miles from the city of Anchorage. Also, it is impossible to tell when this wonder lake will put on her act as it is governed, of course, by the vagaries of the weather. But a big show it must be and if the Geesockers ever make a field trip to Alaska, we might see repeated, on a minor scale, the blocking of the Columbia River at Coulee during the ice ages of the past.

J.E.

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G.S.O.C. LUNCHEON - THURSDAY, MARCH 13, 1952

The thirteen members present at this meeting were President Norris B. Stone, May R. Bushby, Estella Conner, Edw. D. Bushby, Geo. V. Elder, Rudolph Erickson, A.W. Hancock, Albert Keen, H. Bruce Schminky, Stanley Shirk, Leo F. Simon, Orrin E. Stanley, and Robert F. Wilbur. . . . .The "flu" had caused Mrs. Conner and Mr. Stanley to miss recent meetings, and was tightening its tentacles around Mrs. Bushby who stayed to the close of the meeting and then went home to have another round with the enervating disease. . . . .Elder and Schminky brought their copies of "The Mother Lode Country," a beautiful book with maps, photographs, and geological data of that part of California which attracted gold seekers about a hundred years ago. . . . . Rudolph Erickson had a copy of "New York State Museum Handbook No. 9," a handbook of paleontology for beginners and amateurs, Part I, Fossils, which, at its price of a dollar a copy should be in the library of every budding geologist. . . . .May Bushby called attention to an exhibition of prehistoric art now on view at the art museum. She also spoke about the Society library, of which she is the new and very enthusiastic custodian. . . . .G. V. Elder displayed specimens of bismuth oxychloride, and a lump of the metal, bismuth, which is very heavy, having a specific gravity of 9.7 to 9.8. These were from the Sir Walter Scott mine at Argenta, Montana. . . . .Albert Keen brought a beautiful specimen of realgar in orpiment, both arsenic sulphides. The realgar, we learn from English's "Getting Acquainted with Minerals" changes from the beautiful red crystal to a yellow powder if exposed to light. . . . .Rudolph Erickson had a shell found on a scouting trip with Leo Simon. He claims an all-time

record for having gotten Leo back to town before dark. . .Leo Simon had two lovely faceted specimens of synthetic alexandrite which he had purchased. . .A.W.Hancock reported that "business is rushing" at his museum, with several groups of young folks, totaling close to a hundred individuals a week, coming to inspect his outstanding display and hear his talks about ancient Oregon. . .Mr. Wilbur's rather late arrival was caused by the necessity of inspecting several shipments of shamrock, and removing the soil from the roots to prevent the importation and spread of a very serious plant disease.

O.E.S.

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REPORT FROM DR. RALPH W. CHANEY

There is quoted below an excerpt from a letter from Dr. Chaney received by one of our members relative to fossils found on our recent field trip into the Buxton area:

> "I am quite excited about the fossil you sent me last week; it arrived yesterday. It appears to be Cunninghamia, a genus of conifer related to Sequoia and not as yet recorded from North America. I have found it in Oligocene deposits near Eugene and have no doubt that it is fairly common in the Willamette Valley. I shall have something more to tell you about this specimen when next I see you. The finding of an oak leaf is also suggestive of Oligocene age."

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LAVA FLOW ON ST. HELENS BELIEVED RELATIVELY NEW

By

Phil F. Brogan

A tongue of lava, some 2000 feet wide and about three miles in length, froze on the high northwestern slope of Mt. St. Helens in comparatively recent times and composed for geologists a mystery only recently solved.

Some two miles down the slope from Toutle glacier, where the andesitic lava spilled from the earth and flowed into a broad ravine, geologists discovered glacial till, in several large patches, on top of the lava. At first it was thought that these forested till islands were of the kipuka type - hills of an earlier land mass completely surrounded by lava, such as the islands at the summit of Oregon's McKenzie pass. But later studies, from the ground and sky, revealed that the St. Helens isles of glacial till had a more startling origin.

Donald B. Lawrence of the University of Minnesota discovered that the St. Helens till mounds were "floating islands" on the lava flow. He reported his discovery in the Mazama magazine, Portland publication. Lawrence determined in his studies that the Mt. St. Helens lava flow emerged from the earth's surface under a glacier. He wrote:

> "As the lava flowed out slowly, a glowing, steep-walled mass of angular blocks, it accumulated upon its upper surfaces masses of till and probably till-packed ice, which, being lighter in weight than the blocky lava, literally 'floated' along the top of the slowly moving, semifluid stream."

Finally the stream of lava froze, leaving its drifting islands of glacier till to form a bed, which later, after about 25 years of enrichment, provided sustenance for tree seedlings. This first generation of trees covers the "floating islands" today, and provides students of the Northwest's past with a clue to the age of the Mt. St. Helens lava flow.

The oldest trees on the island are now about 115 years old. Allowing 25 years for the enrichment of the glacial till before the trees started growing, it has been estimated that the St. Helens lava eruption occurred about 1812. * * * * * * *
(From The Oregonian, March 9, 1952.)

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - May 1952

Thursday May 1 — Luncheon Meeting - Chamber of Commerce - No reservation necessary.

Thursday May 8 — Luncheon Meeting - Chamber of Commerce - Come and bring a friend.

Friday May 9 — At our regular Friday night meeting at Library Hall most outstanding pictures taken by Mr. and Mrs. Linwood B. Cornell on their 3-months trip to South America will be shown. The shots taken while flying over the Andes are particularly beautiful, it is reported.

Thursday May 15 — Luncheon meeting.

Thursday May 22 — Luncheon meeting.

Saturday May 24 — Our regular Friday night meeting is postponed to the following night, Saturday, May 24. This in order that we may enjoy, jointly with the Mazamas, hearing Dr. Ralph W. Chaney, Paleobotanist with the University of California, tell about his recent trip to Japan. Be on hand early as there will undoubtedly be a large crowd to hear this most interesting lecture. The place, Library Hall; the time, 8:00 o'clock.

Thursday May 29 — Luncheon Meeting.

Friday May 30 — Three-day Field Trip!!

Saturday May 31 / Sunday June 1 — This three-day trip will be very scenic and interesting. Drive through Maupin to Shaniko Junction, turn L into Shaniko. Take rock road from there to Antelope. About 4 miles east of Antelope, take left hand road to Clarno. Cross John Day River, drive east about two miles and left hand side of road is entrance to fossil nut beds. (See open gateway in fence). There will be a GSOC marker at this location. Drive in about 1/2 mile to camp site for picnic lunch about noon or one o'clock. It is about a four-hour trip from Portland. The rest of the day (Friday) Lon Hancock will lead a fossil "dig" nearby in the fossil nut beds. We camp here for the night. Bring all your own food and camping equipment. Water is procurable about half a mile from camp. Campfire session until bedtime. Those having no equipment, make reservations right away at Fossil Hotel, Fossil, Oregon, 20 miles distant. (A good place for fossils to stay. We tried it!) There are about 8 rooms available, $3.00 for single, $5.00 for room with 2 beds. Restaurant in Fossil.

At 8:00 a.m. Saturday we will drive into Fossil and dig fossil leaves in High School yard. This location is a year old. From there to Spray where Lon Hancock will show us a mammal fossil bed. Lon found some oreodont skulls here. (You know Lon, who smells 'em out!) Thence to some ammonite locations and leaf deposits in the painted hills. We meet at Mitchell for the night or camp in Painted Hills State Park. Those staying in Mitchell should make reservations at Oregon Hotel, Mrs. J. B. Payne, who can accommodate six or eight. Double beds with bath $4.00. Without Bath, double, $3.00. Make reservations at once as rooms are limited! Restaurants in Mitchell.

(Continued on page 42.)

Field trip (con't.): On Sunday the famous leaf fossil formations of West Branch Creek will be our destination. Later, Mr. Murray Miller will show us a new leaf location in the Ochoco Mountains. Then back to Prineville were we hope to meet with Phil Brogan, and then home.

Call Leo Simon, BEacon 0300, or R. Erickson, BEacon 7191, if further details wanted.

Thursday, May 15 - Don't forget our "Library Browsing Fest" evenings at Mr. and Mrs.
Thursday, May 29 - Edward Bushby's, 1202 S.W. Cardinell Drive, 7:30 to 10:00 p.m.

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NEW MEMBERS

Eugene Hampton
7776 S.W. 5th Avenue
Portland 1, Oregon
CIrcle 7788

Richard Walker
3526 S.W. Nevada Court
Portland 1, Oregon
CHerry 5563

* * * * *

The new house numbering in Oswego and vicinity affects two of our members.

Mr. and Mrs. Norris P. Stone
16450 S. W. Glenmorrie Drive
Oswego, Oregon
BLackstone 1-1154

Mr. and Mrs. Rudolph Ericksen
249 S.W. Glenmorrie Drive
Oswego, Oregon
BLackstone 1-1873

****

OUR PRESIDENTS

Presidents, "Ex" and "In the Offing," seem to be pretty much on the mind these days.

Our own President Norris Stone handed us a list of those who have served the GSOC, with dates and other information. It was interesting to learn who had carried the responsibility in the past. The list is printed below.

Past Presidents
Geological Society of the Oregon Country

* Charter member; F - Fellow; HF - Honorary Fellow.

1935 -	*	HF	Dr. Edwin T. Hodge	1943 -	F	Lloyd L. Ruff
1936 -	*	F	Clarence Phillips	1944 -	F	E. N. Bates
1937 -	*	F	A. D. Vance	1945 -	* HF	A. W. Hancock
1938 -			Ray C. Treasher	1946 -		Dr. John E. Allen
1939 -			Arthur M. Piper	1947 -	*	Dr. Arthur C. Jones
1940 -	*	F	Dr. J. C. Stevens	1948 -		F. W. Libbey
1941 -	*	F	Kenneth Phillips	1949 -	*	Leo F. Simon
1942 -	*	F	H. Bruce Schminky	1950 -	* HF	Dr. Edwin T. Hodge

1951 - Ford E Wilson

At this date, January 22, 1952, all past presidents are living.

Our constitution was adopted April 18, 1935.

N. B. Stone

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REPORT OF DR. RALPH W. CHANEY - JAPAN

We are very fortunate to be able to print herein the following report of Dr. Ralph W. Chaney on his recent trip to Japan and other countries. Dr. Chaney states that field and museum studies in Japan were confirming theories of plant migration based on studies in the John Day Basin which makes his findings of particular interest to GSOC members. The report follows:

I left San Francisco on July 2, 1951, taking a Pan American World Airways plane from New York on July 3. A brief summary of the work done, each number representing an area visited with inclusive dates, follows:

(1) Iceland (July 4-7) - Tertiary plant collections were studied, largely at night. These contain many common species of angiosperms which characterize the Arcto-Tertiary flora of Eocene age elsewhere at high northern latitudes; conifers are less common than in deposits of corresponding age in Greenland and Alaska, and are limited largely to spruce (Picea) and other now-northern genera, with no observed representation of the Taxodiaceae (Sequoia, Metasequoia, Taxodium).

Many areas occupied by living woody plants were visited. The most common native angiosperm is birch (Betula pubescens), small trees of which reach a height of 15 feet and a diameter of 5 inches; it is largely confined to sheltered valleys. Two shrub species of willow (Salix) are also present, and such Ericaceae as Vaccinium (huckleberry) and Arctostaphylos (bearberry). Mr. Bjarnason, Director of Iceland Forest Service who is introducing many hardy trees, believes that present-day restriction of woody plants has resulted from overgrazing by sheep, and is taking preliminary steps to correct the destruction of natural vegetation and soil.

(2) Northwestern Europe (July 7-18) - Most of the type specimens of Cretaceous and Tertiary plants from high northern latitudes, which formed the basis for Heer's and other early papers, are at Copenhagen, Stockholm, and London. Museum collections there were studied, with special emphasis on fossil conifers. A majority of Heer's figures specimens were found, and when necessary re-identified. Many of them had been referred to Sequoia, but in all cases specimens with distichous (flat-sprayed) phyllotaxy were found to represent Metasequoia and Taxodium, both of which were, and are, deciduous. No evidence was seen for the presence of Sequoia at high latitudes in the Old World, though scaly-leafed foliage of the Sequoiadendron type is common. This is in agreement with my earlier studies of Alaska collection, in which Sequoia of the sempervirens type is not represented. A report on the status of Sequoia, Taxodium and Metasequoia at high northern latitudes in Europe is in preparation. Increased understanding of the Tertiary distribution of these conifers will help to solve long-standing problems.

(3) The Middle East (July 18-August 8) - In the mountains above Bursa, Turkey, in Anatolia, I visited a forest made up of fir (Abies), beech (Fagus), aspen (Populus) and other typical members of the Arcto-Tertiary Flora. Tree distribution down the slopes was suggestive of forests at much lower latitudes in Central America. Similar observations in Liban extended from arid lowlands to intermediate elevations where oak (Quercus) and other genera of northern origin are common.

(4) India (August 10-27) - A visit to the Birbal Sahni Institute of Paleobotany at Lucknow gave me an opportunity to meet the staff and discuss a wide range of paleobotanical problems. I delivered two lectures at the Institute. Several field trips were taken in the vicinity of Delhi, where the vegetation seems to be unlike any I have ever studied. Its genera and families indicate a Paleotropical-Tertiary origin, involving development in a wholly distinct geographic province since at

least Cretaceous time. On the flight northward to Kashmir, conifers were seen at upper levels. A traverse from Kashmir Valley, at elevation 5,000 feet, to the slopes above Khellanmarg, at 11,000 feet, showed vegetation of typically Arcto-Tertiary type comprising some twenty genera; most of these have been noted in Tertiary floras of China and Japan, and in North America. In their general aspect and composition, the Kashmir forests resemble those at corresponding latitudes in the eastern United States more closely than any on the western side of the continent.

(5) Japan (August 30-December 20) - Previous studies in northeastern Asia have indicated that its Tertiary forests were in many ways similar to those of western North America. With the discovery that the dominant Tertiary conifer of both continents, Metasequoia, had a deciduous habit like that of the common angiosperms, our understanding of past climates has been greatly increased, and it has become important to restudy many of the fossil floras of Arcto-Tertiary origin on both sides of the Pacific.

The best known floras in Japan are of Eocene and of Miocene age. Eocene floras are especially abundant on the island of Hokkaido, where large collections have been made incidental to coal mining. A study of this material at Sapporo and Sendai has provided an adequate basis for reconstructing the forests of Eocene time. Like the more northern floras on the opposite side of the Pacific, which occur at a somewhat higher latitude, this older vegetation of Japan represented an ecotone between the typically temperate northern forests and those of subtropical aspect to the south. In close association with Metasequoia, Betula and other Arcto-Tertiary genera, I have listed Alangium, a genus now largely confined to paleotropical regions, palm (Sabalites), and other plants which now have a more southerly distribution. Eocene floras are poorly represented in southern Japan, but all of the material studied appears to have had a southern (Paleotropical-Tertiary) rather than a northern (Arcto-Tertiary) origin. Recognition of Tertiary forest zones in eastern Asia which correspond in position and sequence to those in Western North America has a significant bearing on the theory of continental stability, and seems to raise serious obstacles to any acceptance of the hypothesis of continental drift as applied to earth history in its later chapters.

The Miocene floras of Japan are strikingly like those now living on the island of Honshu. They are more temperate in type than those of the Eocene, and in this respect seem to indicate the same climatic trend toward lower temperature which has been so widely recognized in North America. Museum studies were supplemented by field work at several critical localities. Following the procedure which has been found to be valuable elsewhere, the modern vegetation of Japan was fully studied and photographed; the composition of living forests in Honshu is in many respects more similar to the Middle Tertiary vegetation of the northern hemisphere than any other accessible region (central China is not accessible). Several combinations of genera found living together in Japan throw much light on the aspect and physical requirements of the forests of Oligocene and Miocene time on both sides of the Pacific. Bad weather made impossible my study of the broad-leafed evergreen forests of southern Honshu and Kyushu, whose composition is suggestive of the Eocene floras of Japan and the western United States. Data regarding the modern forests of Japan, together with the revised lists of fossil plants, will be of great value to my current Tertiary studies in the John Day basin.

Ralph W. Chaney

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A. W. HANCOCK HONORED AT UNIVERSITY OF MICHIGAN MUSEUM

A new species of fossil nut of the genus Paleophytocrene that is twice as large as any previously known species of the same genus is to be named Paleophytocrene Hancockii at University of Michigan in honor of A. W. Hancock, yes, none other than our very own "Lon."

Richard A. Scott, a student of paleobotany at the University who has been studying fossil nuts in London, comparing them with our Clarno specimens, tells about it in a most interesting letter which Mr. Hancock has kindly consented to our printing herein, as follows:

75 Aberdere Gardens
London NW 6, England
March 23, 1952

Mr. A. W. Hancock
2704 84th Avenue SE
Portland, Oregon

Dear Mr. Hancock:

The selection of your specimens which were forwarded by Dr. Arnold has arrived safely in London, and I have had time to work on some of the puzzles represented. I appreciate your sending them, both because some of them are most interesting in their own right, and because they indicate that our material from the nut bed is fairly representative.

The most interesting specimen that Dr. Arnold sent on was the large one with indications of pitting on its outside. You had cut the nut in two, and the inside is filled with calcite. The small projections on the inside surface of the shell which show up in the cross section allowed me to identify it. It is related to the same group modern plants as the smaller "peach pit" specimens, and none of them are close to peaches. The genus is called Paleophytocrene, and its modern relatives live only in the Malay Peninsula, where they are large climbing vines growing on jungle trees. They have not been found either living or fossil in America before, but the genus also grew in England during Eocene times. This large specimen is over twice as large as any previously known species of this genus. If you would be willing to donate this specimen to the Univ. of Michigan Museum, I would like to describe it as a new species, Paleophytocrene Hancockii, if you don't object to the use of your name.

As I said, the smaller "peach pits" are also in this genus. The one with the smallest pits is P. fovelata, the species from England. The one with larger pits is a new species I am calling P. pseudypersica. The pits are casts of the projections on the inside of the shell, which were originally hollow and probably had hairs growing outward from them. Your specimens were particularly nice, and furnished some valuable additional information.

Quite a lot of detail is required before you can be certain of identifying fruits and seeds because there are so many similar ones, and most of the rest of your specimens lack sufficient detail to be certain. The large round one about the size of a golf ball, with slight traces of longitudinal marks on it may be a palm fruit. I have a similar specimen, which I cut in two, but there is no structure preserved. A fossil from the Eocene in Florida which looks much the same is identified as a palm fruit.

The rather large cast with the profile outlined above is probably a legume seed, but again detail is lacking and there are so many legume seeds which look about the same that it is not possible to make even a good guess as to its name. The beautifully preserved specimen with the wrinkled skin and little strawberry-like attachment point is a complete mystery to me. It probably could be solved with details of its inside structure, but the chances that they are preserved are hardly good enough to justify cutting it.

I don't know just what all Dr. Arnold left out, so I don't know for sure what else to mention. He did send one silicified walnut, and you might like to know that the Clarno walnuts really are walnuts, probably the oldest absolutely sure walnuts, and certainly the oldest so perfectly preserved. The shell is very similar to a species which now grows in southwestern United States and Mexico, but the seed has more features of the walnuts now growing in Asia, particularly China.

You have probably also collected the two types of boat-shaped casts at the nut bed. The smaller of these, which usually has little bean-shaped nodules at the ends, is closely related to a genus of climbing vines which now grows in Central and northern South America. The larger one, which has a big (3 inches long) pecan-shaped structure around it, is also in the same family. The pecan-shaped structure is actually the cast of a big cavity system inside the shell. The closest forms to this now live in southeastern Asia and Africa. They both belong to the Menispermaceae, or moonseed family, which is almost exclusively tropical or subtropical. If you happen to have any grapelike seeds which show both sides, I would appreciate knowing it. I have separate sides, the ventral surface is a grapelike genus, Parthenocissus, but the back side could belong to about 3 genera, and I lack proof putting them together.

With your permission, I would like to hand-carry your specimens back to Michigan when I return, and there photograph them for inclusion in my paper, and make some models in plaster of the most important ones, particularly the pitted forms. I am coming home the last of June, and will send your nuts back shortly after that if this arrangement is OK. Thank you very much indeed for your kindness in furnishing this most useful material, and I will send you a copy of my paper on the Clarno nuts as soon as it is published. I hesitate to ask you for specimens after having promised to return them, but it is almost necessary to have described material, particularly type specimens preserved in institutions, and that large pitted form is well worth naming as a new species.

Sincerely yours,

/s/ Richard A. Scott

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THE OLD NURSE

We are indebted to Mrs. Arthur Jones for the following lines copied from Fourteen Weeks in Zoology a book written by J. Norman Steele, copy in Museum showcase at Jacksonville, Oregon:

"And Nature, the old nurse, took the child upon her knee
Saying, Here is a story book, Thy Father hath written for thee."

Longfellow

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ADVENTURES OVER THE HILL*

By

Eleanor Gordon

It was September 1949 when with my sleeping bag packed away in the pick-up, I turned toward Rockville, a tiny speck that I had circled on my map in Malheur County, Oregon. I camped for the night in Succor Creek Canyon and had breakfast by that clear nodule-embedded stream where the sun never comes up because of the overhanging walls. Next morning I followed the signboard into Rockville and arrived at the only house in sight. Could this be the place? While I hesitated, the door opened, and a kindly, white-haired lady said, "Won't you come in?" And so it was that I met and became a friend of Mrs. Sheridan.

The Sheridans had come to Malheur County many years ago in the hope that the high, dry climate would bring back Mr. Sheridan's health. And so it did, but it brought also having to live in a desolate region with nearest neighbors miles away and mostly the howl of coyotes and chattering of magpies for company. To ease her loneliness Mrs. Sheridan formed the habit of taking long walks across the barren hills. It was on one of these that she discovered some beautifully preserved leaf prints. She brought them home and tried to find someone who could give her information about them. Finally, a state university took the time and trouble to send her books and bulletins on geological and paleobotanical subjects. An enchanting world opened to her. She wrote, she read, she learned, and the specimens which she generously shared with those in the field, brought many great ones to her hearthside.

Next day, in the fine-grained silt, hard and buff-colored we gathered many fossil leaf prints. Their matrix is of volcanic origin deposited in freshwater lakes. There were platanus, quercus, aralia, silax, sassafras, fraxinus, -- a collector's paradise! As I told Mrs. Sheridan goodbye, I felt I had experienced a great privilege in knowing her

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*Have you had an "Adventure over the hill?" If so, your editor would like to see it for possible use in News Letter. Not over 200 words, please.

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OREGON MUSEUM ANNOUNCEMENTS

Have you seen the Ford Wilson collection of minerals? This exhibit at the Oregon Museum of Science and Industry includes all but a few of the 92 elements in elementary or compound form. An excellent opportunity for Jimmy, Sue, or Grandma to learn mineral identities.

The Dr. J. Hugh Pruett collection of meteorites will be on display at the Museum during the month of May. A splendid exhibit by which to acquaint yourselves with those space vagabonds of stone and iron.

A special exhibit of the Mary Margaret Hughes goblet collection will be held in the Museum foyer during the months of May and June.

The Expedition season is just around the corner. Don't delay! Register Throckmorton or Eulalie for membership today! Give your son or daughter the opportunity to learn about old Mother Nature in the Central Oregon Country under expert guidance. Phone, write, or call in person for an application blank - 908 N.E. Hassalo Street, Portland 12, Oregon. East 3807.

Stanley H. Shirk, Director

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY
STATEMENT OF RECEIPTS AND DISBURSEMENTS
For the Period March 1, 1951, to February 29, 1952

RECEIPTS:		
Memberships:		
Year 1951-1952		
54 renewals at $3.50	$189.00	
11 renewals at 2.50	27.50	
1 renewal - Jr.	1.50	
4 new at 3.50	14.00	
1 new - ½ term	2.00	
Total		$234.00
Year 1952-53:		
39 renewals at $3.50	$136.50	
12 renewals at 2.50	30.00	
3 renewals at 1.50 (Jr)	4.50	
3 new at 3.50	10.50	
2 new at 1.50 (Jr)	3.00	
Total		184.50
Total memberships		$418.50
News Letter:		
Subscriptions		6.00
Binding copies		38.00
Banquet receipts:		
1951		137.00
1952		210.00
Sale of Supplies		9.60
Total receipts		$819.10
DISBURSEMENTS:		
News Letter	$186.10	
Banquet:		
1951	333.54	
1952	253.28	
Lectures	13.00	
Stationery and supplies	37.95	
Other	43.57	
Total disbursements		867.44
Excess of disbursements over receipts		$ 48.34

GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

BALANCE SHEET
February 29, 1952

ASSETS

Cash in bank	$1,096.85	
Furniture and fixtures	45.05	
Total		$1,141.90

LIABILITIES AND NET WORTH

Liabilities		None
Surplus:		
Per treasurer's report March 1, 1951	$1,190.24	
Excess of disbursements over receipts for current year - See statement attached	(48.34)	
Surplus February 29, 1952		$1,141.90

On March 14, 1952, I audited the books of the treasurer of the Geological Society of the Oregon Country and found them to be correct and in good order and agreeing with the annual report of the treasurer for 1951-1952.

(Signed) Leslie W Bartow, Auditor

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G.S.O.C. LUNCHEON - March 20, 1952

This meeting proved, we believe, what has been suspected for some time; that the Chamber of Commerce dining room manager is really psychic, for by assigning Room 2 for our use, she assured an unusually large attendance. The sixteen people who crowded into the room were: President Norris Stone, Ray Baldwin, Ed Bushby, May Bushby, G. V. Elder, Rudolph Erickson, Myrtice Fowler, Albert Keen, F.W.Libbey, T.C.Matthews, Kate Rosa, H. B. Schminky, Leo F. Simon, Orrin E. Stanley, A.D.Vance, and R. F. Wilbur. . . . .Reporting the luncheon meetings will doubtless become increasingly easier as President Stone makes progress with his insistence on quiet attention to the speaker who has been officially recognized by the chair. He will doubtless have hard sledding, but that is the lot of all reformers. Progress in the campaign might be more rapid if the worst interrupter at one meeting were to be assigned the task of reporting the next one. . . . .F. W. Libbey brought a section of a mine post from the island of Cypress. It was said to have been installed in the mine more than 1800 years ago. The wood, thought to be lemon, was impregnated with metallic copper from the mine drainage. . . . .Rudolph Erickson brought two fossil shells from the Keasey area for identification. A. D. Vance said that one was a Polineces Saxea, and thought the other was a Macoma Arctata. . . . . Tom C. Matthews showed a piece of ferro-chrome, said to have been dug up from a pipeline ditch, but there was no explanation as to how it happened to be there. He also had a magazine with colored pictures showing the operation of an electric furnace for melting metals. . . . .May R. Bushby had clipped an article from the Sunday Journal of March 16, 1952, telling of artifacts found at Fort Rock, Oregon. . . . . Ray Baldwin gave an interesting verbal account of a trip to California where he and Mrs. Baldwin had navigated the nearly impassable highway No. 101, forded floods, visited Mr. and Mrs. E. N. Bates at Sausalito and Ruth Coats at Carlsbad. They

THE TUALATIN A FICKLE JADE

By
R. Erickson

Lest you think the title stigmatizes unnecessarily her reputation, I would say that a lady who forsakes her bed on divers occasions to establish a new abode and who yet at times returns to her first love cannot expect otherwise. The question therefore arises, is she guilty?

The Tualatin River at present pours its waters into the Willamette near the town of that name just south of Oregon City. Dr. Ewart Baldwin has called attention to the fact that the Tualatin once continued east beyond its present outlet and the writer has heretofore raised the point that the present channel of the Willamette in the gorge on the east side of Pete's Mountain shows evidence of being a recent channel, whereas the Tualatin where it joins with the Willamette is an old valley. Examination of the area to the east of the Tualatin mouth reveals an immense fill a mile wide at the highway level and capped by a lava flow. East of Oregon City in the Abernathy Creek basin this stream has cut down deeply through a soil deposit and the only rock exposed is at the top. A like situation is true in the basin of Beaver Creek that enters the Willamette at New Era. Troutdale gravels appear in the bed of a north branch of Abernathy Creek a mile or so from its mouth.

At Oswego Lake there is a gap through the hills forming the northeast wall of the Tualatin Valley much resembling the gap in these same hills at Oregon City through which the Willamette and Tualatin waters pour. The Oswego Lake waterway has slightly the higher elevation of the two but the difference is not great. In the bottom of Oswego Lake, a deep, narrow channel trends southwest-northeast and a northeast extension of it would pass through the north side of Oswego and into the Tryon Creek area near where that stream enters the Willamette River. In sinking wells, it requires a depth of 80 to 90 feet or more in northwest Oswego to reach water. At the mouth of Tryon Creek, the rock wall of the west bank of the Willamette has been eroded away for quite some distance, although continuous otherwise both north and south of this point. This gap is much greater than where the present outlet of Lake Oswego enters the Willamette. At the point where Highway 99 enters Oswego from the north, recent excavations display a deposit of broken rocks some of which are slightly rounded. Intermixed with the rock and above it are lenses of coarse sand.

At Durham Station near the west end of Lake Oswego, a gravel-pit operation has opened up now approximately 40 feet deep. This pit is in a broken rock and semigravel deposit and apparently bedrock has not as yet been reached. Numerous limonite pieces are found in this deposit, and we know the Oswego limonite outcrop is to the east of this point at about the center of the Lake Oswego hills. Lenses of a coarse gray sand also appear. This material now being excavated is an immense fill lying between the Tualatin River and Oswego Lake and apparently fills in the channel, the continuation of which we see in the bed of Oswego Lake, the bottom of which is almost sea level.

Summing up the foregoing we may surmise that by Troutdale times the Willamette had established a channel to the east of Oregon City and that it had cut this outlet down to present level or better. This outlet was closed, probably by the vast flood of gravels that were forced west across the Portland area. These gravels reached the Abernathy Creek area and also into South Oswego for Troutdales are found there also, but they did not get into the Tualatin Valley. The answer apparently is that the present Oswego Lake gap did not then exist. Obviously also, had there been a gap there, it is questionable that the Tualatin would have gone on eastward beyond this point.

The Tualatin then in Troutdale times went east past its present outlet and joined the Willamette somewhere east of Oregon City. When the Willamette's outlet was closed, the Tualatin waters perforce joined with those of the Willamette drainage in the creation of a lake in the Willamette Valley, the waters of which proceeded to find another outlet. This apparently was found in what may have been a depression lying between present Oregon City and West Linn. The former channels of the Willamette and the Tualatin then lying under the lake waters were then completely silted up and east and south of Oregon City were capped by flows of Boring lava. The silting probably filled in as well the Tualatin channel lying west of the present Willamette River but this was later eroded away as the barrier at Oregon City was cut down. At about the time the new Willamette channel between Oregon City and West Linn was established, the Willamette may have begun its cutting of the present channel along the east side of Pete's Mountain or the Willamette waters may have come around west of Pete's Mountain for a time. Possibly both, with the east channel cutting down most rapidly once the zeolite impregnated lavas in the gorge bottom were exposed.

During all of this time there was a barrier across the present Oswego Lake gap. Erosion by local drainage was probably at work however on the east face of this barrier and although the water volume may not have been large, it may be that it had loose material in which to work. If a fault zone exists here then it may very well have had this aid.

Eventually the waters working their way backward through the Oswego Lake barrier reached the western side and finally the Tualatin itself. This stream thereupon quit its old course from there southeastward and coming through the present Lake Oswego cut a deep and narrow channel. But the Willamette at Oregon City had cut below the Tualatin level so continued to follow the bed it had fashioned. Thus situated the two streams continued their separate outlets through the northeastern hills of the Tualatin Valley until fairly recent times. Then there occurred that Columbia flood, sometimes referred to as the Spokane flood and also by other terms. We have heard and read much concerning this in the past and apparently may soon hear more on the subject. The waters of this flood, or a portion of them, reaching the Portland area rushed westward through the gap at Oswego in a depth of several hundred feet and widening and deepening the gap carried a vast quantity of material into the west end of the Tualatin channel through Oswego Lake to make the fill we now see at Durham Station. The fact that loose material was available for moving may be due to this being a fault zone as suggested heretofore. Thus forced out of its bed here, the Tualatin was obliged to again take up its old course by way of Willamette where we now find it. And the backwashing waters of the flood itself, again taking material from the sides and bottom of the gap, dammed the eastern part of the Tualatin's channel through Oswego Lake converting a stream into the present Lake Oswego.

Where will this fickle dame next make her bed? We will have to tune in a hundred thousand years from now to get our answer. The above is submitted as the conjectures of an amateur observer with the hope that it may assist in some degree in an understanding of the complex geologic problems of the Oswego area.

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WHAT'S IN A NAME?

Our new president, Norris Stone, has been going around with his chest out because he somehow got the erroneous impression that he was elected because some of us Geesockers thought he would make a good leader. The fact is, he reached this highly enviable position for one reason alone. Where else could we find a person with a name so fitting and altogether appropriate for a leader of geologists!!!

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YOUR LIBRARY AND MINE

The GSOC collection of books and pamphlets has been moved to 1202 S.W. Cardinell Drive where it will be possible for members and their friends to browse in the library at least two evenings a month. Members of the Social Committee will be present to serve "coffee and..." later in the evening. By the time you receive this issue of the News Letter, the "Coming-out Party" for Your Library and Mine, scheduled for Tuesday, April 29, will be an affair of the past. The library had come of age to be introduced to the membership at large. Thursday, May 15, will be the next "browsing" session - 7:30 to 10:00 p.m. Future dates will be announced.

I hope many will be as enthusiastic in getting acquainted with the library as the Bushbys, the Clarks, the Murray Millers, Estella Conner, and Robert Wilbur. These members helped with the moving, dusting, sorting, pasting in pockets and cards, etc., and this help is appreciated very much. But there's temptation to read the books while working with them. For example:

The Mountains of Oregon by W. G. Steel stole some of my attention. A tiny book published in 1890 in a sturdy, old-fashioned and beautiful binding, this particular copy is autographed by the author. A chapter on Crater Lake makes early history of Oregon come alive. One can see the twelve prospectors who forgot their hunger when first they looked with awe upon this body of water. When they regained their speech, they called it "Mysterious" or "Deep Blue Lake."

Books on the geology of the Columbia River. "See-Your-West" picture books and many others appealed to the helpers. But you will come and explore for yourselves, won't you?

Although there is much work yet to do in cataloging, binding pamphlets, etc., the two bookcases are already full with items ready for loan. More donations have been offered. I have no shelf space for them. Here is my plea: Does anyone have a sectional bookcase (preferably oak) for loan or sale? Or will you please keep your eyes open when passing second-hand furniture stores? I would appreciate any leads. My telephone number is CApitol 2123. Thank you.

And a thank you to Mrs. Arthur Jones for a copy of the February issue of The Scientific Monthly which contains an article by T. S. Lovering, Staff Research Geologist of the U.S. Geological Survey, entitled "The Exploitation of Mineral Resources." It is good reading in these times when all of us are conscious of the need for and lack of certain strategic minerals.

A thank you, also, to Mr. Raymond Baldwin for his donation of The Story of the Great Geologists by Carroll Lane Fenton and Mildred Adams Fenton, published in 1945.

Beginning with 1952 the library will receive monthly issues of Geological Society of America bulletins. January and February copies are already cataloged.

I will try to keep you up to date on information regarding recent acquisitions and, as soon as I can compile a list of the entire contents of the bookshelves, Mr. Norris B. Stone, our President, will arrange for each member to receive a copy.

Yours in the interest of Your Library and Mine, May R. Bushby, Librarian.

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SCHEELITE TALK, FRIDAY, MARCH 28, 1952

Reported by May R. Bushby

What a busy time we had before the meeting started. Folks had brought their "loot" from the March 16 trip to display and those who had not gone on the trip looked at it with envy, probably wishing they had joined the group.

Mr. Tom Matthews introduced Mr. David White, geologist with the Oregon Department of Geology and Mineral Industries, who spoke on the occurrences of scheelite in southwestern Oregon. Your reporter took notes, but these were somewhat sketchy, so Mr. White very kindly supplied her with the following resumé of his interesting talk:

"Scheelite is a calcium tungstate ($CaWO_4$) mineral. It is vitreous (glassy) and may be white, pale yellow, brown, gray, red, or green. It may be mistaken for quartz on sight, but it is not quite as hard as quartz and can be scratched with a knife. Furthermore, the specific gravity is approximately twice that of quartz. One of the main characteristics for identification of scheelite is its fluorescent color, varying from bluish white when pure, to yellow when weathered or containing molybdenum.

"Scheelite deposits are usually related to acid igneous intrusions, and the main types of deposits are quartz vein and high-temperature replacement or contact metamorphic. High-temperature liquids and gaseous emanations resulting from igneous intrusions often alter limestones adjacent to the intrusive to complex silicate rocks consisting of garnet, quartz, epidote, and calcite, and introduce tungsten and other ore minerals. This complex silicate rock is called tactite.

"Scheelite in southwestern Oregon occurs in quartz veins and tactite lenses related to the granite intrusives of Late Jurassic and Early Cretaceous age. Eight known occurrences were described, but the Bratcher mine, 2½ miles southwest of Ashland, and the Mattern mine, 1 mile northwest of Ashland, were illustrated with slides and discussed in greater detail than the others. A large map showing the general geology of a portion of Jackson County and the location of the scheelite deposits was displayed.

"The greatest consumption of tungsten is in steel alloys used in the manufacture of high-speed cutting tools, dies, armor plates, and projectiles. Other uses include electric-light and radio filaments and surgical instruments."

Mr. White demonstrated fluorescence of scheelite by placing several samples under an ultraviolet lamp. In general his talk was informal and he made his audience feel at ease as was evidenced by the fact that a barrage of questions was directed his way, some even from guests in the audience.

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LUNCHEON MEETING - MARCH 27, 1952

Can you imagine it now, Clarence Phillips peeking in the door at this March 27 luncheon and then scooting by, mumbling something about having to be at some other meeting?...But some seventeen members did stay and enjoyed a good lunch...Our waitress presented a specimen of quartz which she said was picked up at Oceanside... R.F.Wilbur passed around some fossil leaf prints from Buxton (Keasey formation)... Lon Hancock, a piece of fossil wood that resembled glass...Eleanor Gordon a specimen from Post, Oregon, suspected of being Osmundites Oregonensis...Much conjecturing about fossilized sea urchin picked up by R. Erickson near Buxton trestle, which was helped along by Leo Simon's showing a present-day specimen, great similarity being noted. Mr. Erickson's specimen has now been sent to Dr. Ewart Baldwin at Eugene who will present it at a geology meet in Tuscon which he expects to attend...Bruce Schminky

passed around a replica of an advertising card showing there was some real "name calling" in politics in Oregon in the 1840's, the card being one published by J.W.Nesmith about J. Quinn Thornton, the two being aspirants for the same office. Bruce also told of a U.S. Geological bulletin covering Virgin Valley area which is free for the asking as long as supply lasts...F. W. Libbey gave a short report on scheelite.

J.E.

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MR. ALBERT MOORE SPEAKER AT LIBRARY HALL - APRIL 11, 1952

And now the secret is out. Those queer little "houses" that bob up in the middle of the landscape whenever we want to make a shot (photographically) of a particularly beautiful river scene aren't what we thought they were at all, they're "gauge houses" built and maintained by the Water Sources Division of the U.S. Geological Survey for recording measurements of the stream's flow.

This information, also the fact that water flows fastest at its top; that it's possible to get a water gauge reading by telephone; that there are a dozen and one needs for measuring stream flow that the layman never thinks of, were some of the points explained by Mr. Albert Moore of the U.S. Geological Survey, Water Resources Division, in a most interesting Friday night talk at Library Hall to GSOC members and friends.

Mr. Moore showed some illuminating slides of just how water measurements are taken, and many of us Geesockers recognized streams where we've geologized, the John Day, the Deschutes, the Columbia, to name a few.

As many of us know, the highly technical machinery used in making such water measurements has been developed in the Portland laboratories of Leopold and Stevens, with much of the invention thereof credited to Dr. J. C. Stevens. The data acquired is used in planning bridge, dam, military, and atomic energy installations; also in fish, pollution problems, and in many other ways.

Mr. Moore presented his material in a nontechnical, down-to-earth manner, and gave us a most interesting evening.

J.E.

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LUNCHEON MEETINGS

April 3, 1952: Fifteen members enjoyed a lively luncheon period with President Stone presiding. Mr. Stanley showed up after winning the second round with an unnamed virus. He reported on an article from Roads and Streets by H. P. Gillette on spacing of tree rings and layers of shales and other sedimentary rocks in relation to rotation of planets around the sun. A program of the Oregon Academy of Science - Tenth Annual Meeting held on February 22-23, 1952 - showed that the Geological Society's friends, Ewart Baldwin, Paul Howell, and Park D. Snavely, Jr., gave talks. President Stone announced that the Executive Board had approved the moving of the library to the home of Mr. and Mrs. Edward Bushby. Librarian May Bushby reported that this would make it possible for her to bring the library up to date in the near future, and that she would keep free two evenings a month so that members may come and browse and get acquainted with this collection of books and papers. Opening night for the library will be April 29 (Tuesday) from 7:30 to 10:00 p.m. M.B.

* * * * *

April 10, 1952: With President Norris B. Stone at the head table was Leo Simon. They had a profile view of Mrs. Bushby, Miss Henley, and Messrs. Baldwin, Bushby, Elder, Erickson, Hancock, Keen, Kelham, Matthews, Schminky, and Stanley. . .Rudolph Erickson reported on a scouting trip to Kelso, looking for leaf and shell deposits listed in

"Geology of the St. Helens quadrangle." He found some specimens of leaves 2 miles south of Kelso. He also noted Troutdale formation in the gigantic sawtooth effect of the hills about 2 miles north of Woodland. In the center "tooth" he saw a big lens of breccia, and in the most northerly one there is a contact of "Troutdale" with "Goble volcanics." Goble rocks continue north. Upper Eocene at the shell locality where leaf print was found is Cowlitz formation, capped by Troutdale. . . Mrs. Bushby reported that the glass in one of the bookcase doors was broken when the library was last moved. . .Mr. Matthews said that the Dr. Chaney meeting will be with the Mazamas in Library Hall. . .Mr. Hancock said that he had been visited that morning by about forty pupils from the Marysville School. He believes that "the country is in good hands judging from the enthusiasm of young folks who visit his collection and the museum and go on the trips."

O.E.S.

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HAVE YOU HEARD?

From our "East of the Cascades" reporter, Phil Brogan? We haven't, for a few weeks at least, but realize he may be rained in, or out, as the case may be..... That one of our most faithful attendants at Friday night lectures is the one who has to drive the farthest to get here, Reynolds Ohmart from Salem?.....That our new Oregon City members, Mr. and Mrs. Murray R. Miller, along with R. F. Wilbur, turned in and helped move the GSOC library to its new quarters, the Bushby domicile? In fact, it was the Miller pick-up that managed the move.....That two of our most enthusiastic collectors on the Sunset Highway trip were Joan and Judy Ericksen? Which reminds us that our own president, one Norris B. Stone, got pretty "wrought-up" on his first fossil collecting trip, also. In fact, he hammered away so vociferously that he tore two ribs loose from his sternum and ended up at the doctor's being taped back together again.....That Lil' Abner and his race with the snaring proclivities of Daisy Mae are nothing to Leo Simon's predicament? Johanna is after him to "sit" for a photograph for our "Presidents' Mug Book." (He was one of them things, you remember, back a few years.) Leo sez "No," but we're betting on Johanna .....That GSOC member, Mrs. R. A. DuBay is Red Cross District Chairman (SE Portland), a sponsor for Pi Kappa Nu, Catholic Youth Organization, and besides, an enthusiastic gardener?.....That the suggestion has come to us that the extreme popularity with the ladies of our April News Letter is due to Prof. J. Hugh Pruett's "Leap Year" article, and this from no less authority than his very own secretary?.....That Mrs. Al Vance has been suffering from an ear infection?.....That our 3-day May trip coming up looks like it may be one of those "best ever" kind -- if the weather cooperates.....That no one will want to miss Dr. Ralph Chaney's talk -- see calendar for details.....Dr. Ewart Baldwin reports getting two nice molars and a few spare parts from the elephant at The Dalles. Also, of having made a trip into the Snake River Canyon, and to Malheur County, coming out just ahead of the floods.....That Dr. W. Claude Adams rated a fine editorial in the Oregonian on his recent book, the History of Paper Making in the Pacific Northwest.....Bring a friend to Luncheon, a Friday night lecture, or a Field Trip. By acquainting him with benefits of GSOC, you may be doing him a favor for which he'll be eternally grateful. We are.

J.E.

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LUNCHEON NOTES - THURSDAY, APRIL 17, 1952

There was a lot of "passing" at this meeting.....President Stone, in his absence, passed the honor of presiding to Veep Baldwin.....our editor Emeritus, Orrin Stanley, passed Mrs. Bushby's report that our Library bookcases are "full up" passed the suggestion apple boxes had been known to answer for bookcases, to say nothing of soap boxes we tried to "pass" reporting the meeting to someone else but didn't succeed.....! Baldwin showed a copy of "The Story of the Great Geologists" by the Fentons which

he presented to our Library.....Johanna Simon, January and February numbers of Geological Society of America bulletins to which our Society has just subscribed..... Leo Simon some Pelecypods, from Spencer Creek, that had been beautifully polished by a friend.....Ada Henley, a Rocks and Minerals magazine published at Peekshill, N.Y., in which mention was made of the sudden death of Mr. Campbell at Priday ranch while he was talking with A. W. Hancock.....Orrin Stanley, in lieu of Al Vance, a specimen of Galeodea with pyrite replacement from the Short Sand Beach, Oregon..... R. Erickson, some specimens of Murray Miller's Equisetum from the top of the Ochoco Mountains which he (R.E.) is forwarding to Dr. Chaney.....Tom Matthews, a leaflet regarding an ancient iron furnace built near Boston in 1640 now being rehabilitated. ....Albert Keen, a rock from Utah containing five minerals which we can't spell..... Bruce Schminky, some pinkish sandstone (Arizona) picked up at 4th and Taylor..... R. F. Wilbur, a spiral-patterned piece of rhyolite.....and again we admired Ada Henley's jadite (Mendicino County) bracelet.....May Bushby told of forthcoming gift of books from Dr. and Mrs. Arthur Jones which sounds very exciting. She also passed the February Scientific Monthly containing article on "The Exploitation of Mineral Resources".....F. W. Libbey confessed he had "gone back to school" being in attendance at an Army conducted course titled "Field Economics Mobilization Course".... Not often seen members, Howard Rose (new) and Dr. Claude Adams (charter).....in all eighteen of us enjoyed a good lunch and stimulating exchange of ideas.....Show up some Thursday (Chamber of Commerce) and find out how interesting these luncheon meetings can be.....85 cents and no reservation necessary.

J.E.

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CHUBB CRATER

Those who read the Oregonian news item reported in the October 1951 number of the News Letter on Canada's Chubb Crater, now called the world's largest meteoritic crater, will not want to miss the recounting of experiences of the expedition discharged by the National Geographic Society and the Royal Ontario Museum as related by Dr. Victor Ben Meen in the January 1952 issue of the National Geographic magazine.

Investigation in this area, it seems, is held to the short period of time when it is possible to land and take off by amphibian. Discouragements met by the group, how they were overcome and finally, just as time was running out, their success in establishing what they consider is final proof that the crater is meteoritic, make fascinating reading. We found ourselves practically rubbing our shins as Dr. Meen relates the difficulty in getting a boat for taking soundings over unbelievably rough terrain down to the water's edge, as well as other interesting and dramatic experiences.

The photographs of the two-mile wide crater and other features are most outstanding.

J. E.

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MEMBERS!!! Your president, Norris B. Stone, urges you to welcome your interested friends to our lectures, luncheons, and field trips!!!

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GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - JUNE 1952

Thursday June 5 — Luncheon meeting - Chamber of Commerce Dining Room, 5th Ave. at Taylor St.

Wednesday June 11 — Browsing Fest at "Your Library and Mine" residence of Mr. and Mrs. Edward Bushby, 1202 S.W. Cardinell Drive.

Thursday June 12 — Luncheon meeting - Chamber of Commerce

Friday June 13 — At this Friday-night meeting (Library Hall, 8:00 p.m.), Dr. A.A.Knowlton, Professor Emeritis of Physics at Reed College, will talk on "Rain Making." Dr. Knowlton will demonstrate the making of snow with a deep freeze unit. This should be one of the most interesting talks of the season. Don't miss it!

Monday June 16 — GSOC Program at Volcano Theatre, Mt. Tabor Park. (See details on page 60, this issue.)

Thursday June 19 — Luncheon meeting - Chamber of Commerce.

Wednesday June 25 — Browsing Fest at "Your Library and Mine" residence of Mr. & Mrs. Edward Bushby, 1202 S.W. Cardinell Drive.

Friday June 27 — Regular Friday-night meeting at Library Hall, 8:00 o'clock. "Glimpses of Arizona" -- a slide tour with Ford Wilson is scheduled.

NOTICE - JUNE FIELD TRIP!!!

Sunday June 15 — There will be a Field Trip up the Clackamas River to a leaf locality, with Dr. Gilchrist pointing out some geological features. We will meet in Estacada at 9:00 a.m. Sunday (daylight saving time.) Drive through town to the fork of the Clackamas River Road and Dodge-Springwater Roads. After assembling here, we will caravan to the various locations. If you need transportation or can take a passenger, please call Leo Simon, BE 0300 or EM 0549.

Be sure to have your GSOC sticker on your car. Bring your lunch and look forward to some fine scenery, good specimens, and an enjoyable outing.

* * * * *

We have a Friday-night talk scheduled for July by Mr. James M. Orr, President of the Orr Engineering and Chemical Company, Portland and Scappoose. Watch for details in your July News Letter.

* * * * *

ANNUAL PICNIC

Circle the date and arrange to be in Portland at that time so that you won't miss our Annual Picnic. The usual place, Mt. Tabor Park, the date August 15. Mrs. Albert Keene is General Chairman for the event. All details in next issue of News Letter.

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"Have you paid your dues?"

NEW MEMBERS

Bradley Moore Davis
2814 S.W. Labbe Avenue
Portland 1, Oregon CA 2150

Mrs. Oscar K. Berg
10936 S.W. 55th Avenue
Portland 19, Oregon CH 3782

Mr. and Mrs.(Dorothy) C. Sipple
and children Virginia and Douglas
Rt. 3, Box 114, Sherwood, Oregon

Mrs. J. L. Landreth
3424 N.E. Oregon Street
Portland 13, Oregon TR 2654

Eugene Hampton
7776 S.W. 5th Avenue
Portland 1, Oregon CI 7788

Richard Walker
3526 S.W. Nevada Court
Portland 1, Oregon CH 5563

And now, a few facts concerning "who" they are.

Prof. Davis, a retired professor of Botany of the University of Michigan. We hope it will be possible for him to participate in many of our activities.

The Sipples? He is Science Teacher at Washington High and we believe that their joining has some connection with the fact that Greg Davis, GSOC member, attends that school.

Mrs. Oscar K. Berg is an interested housewife with a growing daughter, with interest along geologic lines; Mrs. J. L. Landreth is an oldtime friend of our good member and longtime editor of News Letter, Mrs. Leo Haven; and Eugene Hampton and Richard Walker are junior members, who believe that geology has its good points.

* * * * *

THE LEONARD M. BUOYS MOVING TO SEATTLE

We are very sorry to learn that our good friends and GSOC members, the Leonard M. Buoys, are moving to Seattle where Mr. Buoy has accepted a position with Boeing Aircraft Company. They will still retain their GSOC membership and we are hoping that it will prove simply an enlargement of the scope of our activities in that direction.

Our best wishes to you, Jessie and Leonard, for good "hunting" in your new location. May all your ammonites be perfect ones!

J.E.

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DATE OF OUR ANNUAL PICNIC - AUGUST 15. PLAN YOUR SUMMER VACATION ACCORDINGLY!

THE GEOLOGY OF THE McMINNVILLE QUADRANGLE, OREGON*

By
Robert D. Brown

ABSTRACT

A series of generally east-dipping volcanic and sedimentary rocks traverses the McMinnville quadrangle from its western margin to the vicinity of the Willamette River to the east. Beds of Eocene, Oligocene, Miocene, and Pliocene (?) age are exposed in those parts of the quadrangle which are not masked by a cover of late Pleistocene silts and Recent alluvium.

Eocene volcanics and interbedded sedimentary rocks are exposed in the northwest corner of the quadrangle where they are more than 1500 feet thick. This unit includes a series of partly altered and brecciated basalt flows and associated tuffaceous sedimentary rocks, and is continuous with the Tillamook volcanic series of Eocene age that crops out north of the McMinnville quadrangle. An intrusive body of gabbro lies within the main mass of the Eocene unit and is apparently concordant with the adjacent beds. The gabbro intrusive is well exposed in the hills northwest of the town of McMinnville.

Lower Oligocene beds crop out in the southwestern corner of the McMinnville quadrangle. These beds are composed of tuffaceous siltstone and fine-grained sandstone and contain a faunal assemblage similar to that of the Keasey formation of northwestern Oregon. The lower Oligocene unit is possibly several hundred feet thick and is probably in fault contact with middle Oligocene sandstone exposed to the east.

A unit consisting of middle Oligocene sandstone is found northeast of Holmes Gap. This sandstone is not known to crop out elsewhere within the area of this report. The middle Oligocene beds contain a faunal assemblage which is similar to that of the Pittsburg Bluff formation of northwestern Oregon. The sandstone is composed of basaltic detritus with a calcareous cement and is easily distinguished from the more tuffaceous beds of other Tertiary sedimentary rocks in the McMinnville quadrangle. This basaltic sandstone unit is probably not more than 150 feet thick and is conformably overlain by the Illahe formation.

A sequence of upper middle Oligocene siltstone and sandstone is exposed along the western side of the Eola Hills. These beds are approximately 2000 feet thick and are probably equivalent to the upper part of Thayer's Illahe formation. The lower part of this siltstone-sandstone sequence is dominantly tuffaceous but younger Illahe sedimentary rocks are coarser grained and represent a much longer period of deposition. Glauconite beds are common near the top of the formation and these beds contain a poorly preserved upper middle Oligocene fauna.

Columbia River basalt unconformably overlies the Illahe formation and forms a resistant cap on the north trending hills west of the Willamette River. The basalt flows in the McMinnville quadrangle are black and glassy with vesicular upper surfaces and a rough columnar structure within the flows. Locally Columbia River basalt attains a thickness of as much as 900 feet but the average thickness of the unit is probably less than half this amount.

Pliocene (?) or early Pleistocene sediments of undetermined thickness are exposed along the eastern edge of the Eola Hills. The silts and fine-grained sands of this unit were probably deposited on a flood plain on the floor of a

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*University of Oregon Master's Thesis, June 1951.

north trending basin which was downwarped during Pliocene or late Pleistocene time. These sediments are much older than the overlying late Pleistocene silts and are tentatively correlated with similar beds in the upper Troutdale formation.

Pleistocene silts more than 100 feet thick cover much of the McMinnville quadrangle. They probably resulted from late Pleistocene flooding of the Willamette Valley.

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"THE LIVING EARTH" AT VOLCANO THEATRE

G.S.O.C. has been awarded the first night, Monday, June 16, in a program series established by the Bureau of Parks and Public Recreation of the City of Portland, for the benefit of the general public to be known as "The Living Earth" sponsored by various natural-science societies. These are to be held at "Volcano Theatre" which is none other than our own "crater spot" where we've held our picnic entertainments for so many years. The theatre, we are told, has been much improved by installation of loud speaker, better lighting, etc. Programs are to start at 8:30 p.m., last about an hour, and are to be preceded by picnic suppers.

On the above Monday evening, June 16, your president will give a 5-minute talk to acquaint the public with our organization. Mr. Leo Simon will be in charge of the main program which will consist of slides showing the beauty of our Oregon Country, accompanied by explanation of how much more interesting our Columbia Gorge and other scenic spots are when you can connect up the brilliant colorings of the massive rock displays and plant life with the geologic story exposed by the formation.

Let's make it a Geesocker evening! Meet at 6:00 p.m. Bring your picnic dinner, so that by 8:30 we'll be ready for the first "Living Earth" program.

N.S.

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OREGON MUSEUM OF SCIENCE AND INDUSTRY NOTES

The June 1952 issue of Junior Natural History Magazine carries a full length article by Stanley H. Shirk "Operation Natural History" being an account of last summer's expedition conducted by the Oregon Museum into the John Day country. It includes photographs of the camp; of Dr. J. C. Stevens inspecting a specimen; our own "Lon" Hancock talking to the group of boys who were members of the expedition; and last but not least, the "cook," Mrs. Hancock, mixing up a brew for the hungry "scientists."

This year's trip, Mr. Shirk tells us, will include an overnight trip to marine deposits near Mitchell, and a second overnight sojourn to dig out the remains of an elephant near Unity, Oregon.

It is the present plan to reserve Sunday, June 22, for the first group of this year's campers as visiting day for parents, friends, and others interested. However, as food is more or less a problem, visitors are asked, understandably, to take care of their own food and camping problems. The date of July 6 has been set as visiting day for the second group.

Isn't there some young person you'd like to sponsor? If so, get in touch with Mr. Shirk for details.

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CATLOW VALLEY FISSURE

By Phil F. Brogan

On the early morning of April 30, 1952, Clarence Miller, whose Harney County ranch includes part of the bed of ancient Catlow Lake, was moving some machinery across a field when he suddenly came to the brink of a yawning fissure. After three weeks, that fissure is still in the news, and it has posed for geologists a question: Did the huge gash, one mile long, 16 feet wide in places, and "seemingly bottomless" at several points, result from the movement of soil as the result of underground water action or was it caused by faulting?

Thomas E. Campbell, range manager for the U.S. Bureau of Land Management, with headquarters in Burns, believes it resulted from earth faulting, probably a miniature of some of the great movements of comaratively recent times that shoved south-central Oregon's fault-block mountains in the Harney, Malheur, Lake, and Klamath skies.

Mr. Campbell was one of the first to examine the giant crack of Catlow Valley, and he has prepared for the GSOC News Letter a report that may prove of value to professional geologists who will make the final determination of the cause of the fissure.

"The fissure is in the floor of Catlow Valley, which drains gently to the south, but is comparatively flat, being the bottom of an old lake bed," Mr. Campbell said. He ascertained that the soil is alluvial, an alkali clay with a gumbo surface common to the lake-bed type soils of the area. Width of the mile-long crack ranges from four inches to 16 feet.

Mr. Campbell was in the Frenchglen area on BLM business when he heard about the lake-bed fissure, and drove past the Miller ranch to investigate. He said he found no evidence that it had been formed by water from a small reservoir that had broken nearby, following a freshet. There was no evidence that any water had run over the edges of the long fissure. The crack was sharply defined. Its walls were perpendicular. Mr. Campbell said there was plenty of evidence indicating that the earth had separated. No lifting of the surface on either side was observed. Attempts to fathom the depth of the yawning earth fissure failed. Rocks dropped into the darkness did not send back a sound.

"From contacts that we made, the information we received did not preclude the possibility that there had been a tremor in the locality," Mr. Campbell said.

The Catlow Valley earth-crack is in the "shadow" of one of the greatest fault-block uplifts in western America - towering Steens Mountain. Geologists recall that one of the greatest earth fissures ever to form on the continent in historical times developed not far south of the Catlow Valley in 1915. That fissure, 21 miles long, developed in Nevada. A tremor of major intensity was recorded.

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ROMANCE DEPARTMENT

Our Secretary and co-worker, Johanna Simon, reports that Jeanne Pruett, who started with us as a Junior Member back in 1944, is now Mrs. Alonzo H. Stafford. She lives in Ellensburg, Washington, and is taking a course in paleontology at Washington State College.

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"Have you paid your dues?"

FIELD TRIP, COWLITZ COUNTY, WASHINGTON
Sunday, April 27, 1952

Sixteen carloads of Geesockers assembled at the Longview "Y" on Highway 99 at 10:00 a.m. Under the leadership of Reynolds Ohmart of Salem and Stanton Carter of Longview the remainder of the day was spent in probing some of the hidden secrets of the Cowlitz formation of upper Eocene days. On the geological calendar this immediately pre-dates the Keasey formation probed on the March field trip in vicinities of Sunset Tunnel and Vernonia.

First location visited was about three miles southwest of Castle Rock. In the roar of the falls on Scantigrease (or Delameter) Creek, fossil oyster (Ostrea idriaensis), clam, and snail types were found in large quantities, originating in a stratum of coarse sandstone at the approximate level of the top of the falls. A preponderance of fragmentary, rather than entire specimens indicated a probable beach deposit broken up by tidal action. (Even present-day seafood won't keep long "in the raw." Geologists claim this Cowlitz stuff was put in storage some 50 million years ago!)

J. Pluvius put on a half-hour show - nothing new to rock hounds. At chow time, Mr. Carter had the proverbial ace up his sleeve in leading the party through a beautifully landscaped residence section of Longview to the Elks' Memorial recreation house in Sacajawea Park. There we enjoyed all modern facilities. A roaring fire in the fireplace de-humidified the "wet backs" and provided a picnic atmosphere.

Second location was in a roadcut overlooking Coal Creek about 8 miles northwest from Longview. Here a seam of very soft coal of about a yard in depth was exposed. A fault had lowered the north end of the seam about 10 feet. A subsequent fault, scarcely 50 feet north of the original one, had lowered that portion of the seam another 10 feet, leaving the 50-foot section undisturbed. The seam now remains in a series of steps at three levels.

From this point we crossed a ridge and dropped down to our third location - on Mosquito Creek. Again in Cowlitz sandstones, many large clams resembling Venericardia hornii were found in a thin, coarse stratum that required some acrobatics to reach and "hard rock" tactics to remove. In a finer matrix, snail types and a few leaf prints were found. Mr. Carter said that it was very evident that "good pickin's" might be found later in dislodged rock as the water level in the stream bed lowered.

Our fourth and final location was in a roadcut about a mile north of our original assembly point at the Longview "Y" on Highway 99. Here are exposed strata of Cowlitz sand-and-silt-stones quite variable in color and texture. Splendid leaf prints and other plant remains were obtained from the hard, dark sandstone as well as in the buff-colored tuffaceous siltstone. Mr. Carter called attention also to red bands of laterite exposed at the north end of the cut. We are told that laterite is basaltic lava decomposed by exposure to air and water; the water carrying away most of the silica and other minerals leaving aluminum, iron, and titanium oxides in relatively high percentages.

Our attention was called to another striking feature at this location. The fossil-bearing Cowlitz formation of upper Eocene age is capped by "Troutdale" gravels of the lower Pliocene age. Here there seem to be two cards missing out of the deck. Whatever happened to the intervening Oligocene and Miocene formations served as a basis for some heated arguments as the party disbanded. The newly found leaf locality is also a fossil-shell locality of Cowlitz formation, hence we see here a point where sea and land met in that long-distant past, when mammals first appeared on earth.

R.E.W.

WHAT'S NEW IN READING

1. An especially interesting publication which has only recently come to our attention is the May 1950 issue of Northwest Science devoted entirely to a symposium on the Columbia River basalt formation. The symposium, conducted by R. E. Wallace of the State College of Washington, was held at the 1948 Annual Meetings of the Geology and Geography section of the Northwest Scientific Association. Ten geologists presented papers on the geomorphology, structure, petrology, and other aspects of the Columbia River basalt, and an informal discussion of these papers followed. The discussion was tape-recorded and then published in the May 1950 issue of the magazine along with six of the papers.

   Copies of this issue (Vol. 24, No. 2) can probably be obtained from The State College of Washington Press, Pullman, Washington, for about 50 cents each. We have written for information on availability and cost, but have not as yet received an answer.

2. The U.S. Geological Survey has recently published two Circulars of interest - numbers 128 and 142. Circular 128, Pumice deposits of the Klamath Indian Reservation, Klamath County, Oregon, reviews the general geology of the area and describes distribution and economic uses of the pumice.

3. Circular 142, Virgin Valley opal district, Humboldt County, Nevada, was mentioned in the Luncheon Notes of the May News Letter, so some GSOC members may have seen it. Virgin Valley, long famous for fire opals, is near the Oregon-Nevada boundary line and can be reached via Denio. In the report, a detailed road log gives the exact location. The Survey's interest in the deposit was for the uranium content of the opal.

   Both circulars are free on application to the Director, Geological Survey, Washington 25, D.C.

M.L.S.

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THE DR. ARTHUR JONES FAMILY BOUND FOR EUROPE

All residents of Europe have been notified not to be alarmed if an object of meteoric speed flashes through the heavens this coming summer; it won't be flying saucers or an atomic test -- but rather, the Dr. Arthur Jones' rushing through space upon their most lively and interesting European "tour." According to Mrs. Jones, they expect to return as split personalities, due to their interests being divided so many ways. They will attend medical meetings (one of these being the International Congress of Physical Medicine in July at Kings College in London), rehabilitation centers, hospitals for the crippled, institutes for alcohol education, and various other group meetings. Nor is "geology" to be neglected. They will have all eyes and ears open to absorb whatever is possible.

Dr. and Mrs. Jones expect to return home (Portland) around August 5. Their daughter, Ardis McKay, and son, Irving, will drive home through Canada hoping to meet Don McKay somewhere upon his return from Chignik, Alaska.

What an evening we have to look forward to in hearing them tell us about their experiences!

J.E.

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DATE OF OUR ANNUAL PICNIC -- AUGUST 15. PLAN YOUR SUMMER VACATION ACCORDINGLY!

YOUR LIBRARY AND MINE

On the evening of April 29, seventeen members browsed in the GSOC Library, the occasion being the first "open house" at the Library's new home, the domicile of Mr. and Mrs. Edward Bushby, 1202 S.W. Cardinell Drive. When Dr. and Mrs. Arthur Jones walked in, arms full of books, eager hands reached out to relieve them and to explore the thirteen volumes, a set of THE SMITHSONIAN SERIES. "Minerals from Earth and Sky," "Shelled Creatures," "Man from the Farthest Past," are some of the intriguing titles. A "Thank-you" for this loan, and also the gift of a Textbook of Geology, Part I, by Longwell, Knopf, and Flint. Social committee members, Leo and Johanna Simon brought lovely flowers and served "coffee and...."

The May 1952 issue of The Geode, Salem Geological Society publication has been received. It contains a wonderful 2-page summary of a lecture tracing the geologic history of Oregon by George R. K. Moorhead, "Foundation of a State." Also, the March and April 1952 Bulletins of the Geological Society of America, containing among other articles (1) "Our Shrinking Globe," by K. K. Landes, and (2) "Mechanism of Limestone Replacement," by Garrels and Dreyer. Ward's catalog No. 513 for 1951 entitled Geology, just received, lists specimens of rocks, minerals, fossils, slides, etc., with prices.

Our second meeting, May 15, seven of us browsed a couple of hours. Mr. Wilbur brought us a gorgeous bouquet of red peonies and Mr. and Mrs. Murray Miller took care of the social activities. We were happy to have a junior member, Dick Walker, present. Dick said "Geology is the most fascinating subject I've ever studied," and his enthusiasm overflowed when I made him acquainted with the Bulletins of the American Museum of Natural History. Maybe more of the teachers and junior members will take advantage of this opportunity during the summer when schedules are not so demanding.

Our next browsing nights? June 11 and 25, 7:30 to 10:30 p.m. Both Wednesdays. And we are told there is a surprise in store for us about 9:15. Days are deliberately changed in an effort to accommodate the majority of members.

Yours in the interest of "Your Library and Mine"

May R. Bushby, Librarian

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HAVE YOU HEARD?

Of the GSOC member, who, in order to be well briefed geologically on the terrain to be covered on our recent Longview trip spent the greater part of the week reading up on Astoria Miocene, only to discover to her deep chagrin that the areas visited were Eocene?. . .That Lon Hancock on a recent trip east of the Cascades went fishing and came back with a fine fossilized specimen? Fish, of course. . .That a collection is being taken up to buy our president Norris Stone a pair of falsies (water wings). He "fell in" and got soaked on our recent trip to Longview and vicinity. Come to think of it, some of the rest of us got rather damp also, as old Jupe P. decided to perform at the precise moment that we were farthest away from our cars enjoying a fine hunt. . .That we were right proud of Orrin Stanley's radio appearance Sunday, May 25, on "Shooting for 100." It was dignified and to the point. . .We are informed that until Leo (Fr.C) Simon furnishes our historian, Ada Henley, with a picture for the Past President's Biography Book, an enlarged version of "Simple Simon" will fill the reserved space. . .That there is nothing new under the sun (?) - A certain pre-stone age gal demonstrated the first fluid drive. A woman's tears. . .That we're sorry to learn of the accident to R. F. Wilbur which kept him from joining our May field trip.

A TRIP TO SOUTH AMERICA

Such a buzz and hum of talk among the members and many visitors before the May 9 Friday evening meeting at Library Hall. Ray Baldwin opened the session in the absence of President Norris Stone.

After a short business meeting Mr. and Mrs. Linwood B. Cornell were introduced to take the unusually large audience on "A Trip to South America." Mrs. Cornell obliged as projectionist while Mr. Cornell gave a most enlightening running comment. Following a number of scenes of the old French quarter of New Orleans with its lacy iron-trimmed balconies and colored Mammies in bright calico, we set sail upon a huge liner for a 47-day sojourn. The first landing was in Rio de Janerio where Portuguese is the prevailing language which proved quite a trial until the sign language and genial spirits of both sides paved the road to understanding. Then followed visits to Brazil, Uruguay, and Peru.

Buenos Aires proved to be the California of South America. Everything here is the biggest, the best, the most beautiful. If it isn't, whole blocks of buildings are razed in order to make a street just two inches wider. A beautiful swimming pool is not just 75 by 50 feet, but 1500 by 500 feet. There were beautiful views of the hundred-foot statue of the Christo against a flaming sunset and again, silhouetted against the wan light of deepening twilight. On up for a glimpse of snow-covered mountains dropping cloud mantles about their shoulders and to Lake Titicaca, that great beautiful lake cradeled in the lap of the Andes. It was a comprehensive coverage of the modes of living and architecture from native huts to the ultra modern; of the beauty of native verdures and a peek at the intimate lives of the South American peoples.

Jessie Buoy.

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WHITMAN PLAY AT REED COLLEGE

Your editor would be none other than a plain prevaricator if she pretended not to be pleased and excited over the forthcoming production of her play "A Mighty Fortress" to be given by Reed College players for four performances in their outdoor theatre, July 24 to 27 inclusive. The play deals with events leading to the Whitman Massacre and is described by Dr. Charles Gaupp, Drama Instructor at Reed, who will direct it, as a "synthesis of events, rather than a factual historical reporting." In other words, 'taint just dull history!

Reservation for seats should be made though it isn't necessary to pick them up before the play. Tickets $1.00 each. Telephone SUnset 1112.

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LUNCHEON NOTES - April 24, 1952

Menu: HOT soup, creamed chicken, peas, sliced beets, and rhubarb pie. Fifteen persons were in attendance, including a visitor, Mr. John F. Welch, introduced by Ray Baldwin. He is a former associate of Mr. Baldwin's when both were with the U.S. Dept. of Agriculture. As usual, a number of interesting specimens were passed around: fossil leaf prints of oak and alder and possibly willow from eastern Oregon and one that possibly was a fossil sponge; also a fragment of a very lightweight building block that is coming into use in this area. Stanley Shirk told of plans for the summer program of the Oregon Museum of Science and Industry, featuring activities of the GSOC and other similar groups.

E.A.K.

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LEWIS AND CLARK COLLEGE
SUMMER SESSION FIELD COURSE IN GEOLOGY AND BIOLOGY

The Departments of Biology and Geology at Lewis and Clark College are offering this summer a combination course in the geology and biology of the Northwest July 21 to August 28, 1952. The combined course carries six semester hours of credit and in many cases will fulfill the science requirement for graduation.

As now planned the first, third, and sixth weeks of the course will be spent in class and laboratory work on the Lewis and Clark campus. The second week will include an extended trip into the Cascades and on into central Oregon. A visit to Mount Adams will occupy most of the fourth week, interest centering in volcanology, glaciology, and in the marvellous sub-alpine floral display which comes at this time of the year. A trip to the Oregon coast is planned for a part of the fifth week, at which time the geological history of the coast range and the plant successions and communities will be studied. There will be opportunity to observe birds and mammals during the course.

A student may enroll for either the geological part of the course (Geol.14. Geology of Oregon, 3 semester hours) under the direction of Dr. Stauffer, or for the biological part of the course (Biol. 21 or 121. Natural History of the Northwest, 3 semester hours) in charge of Dr. Gilchrist. The course is so planned, however, that a student may take both courses concurrently, this constituting a full college program for the six weeks. It is hoped that most students will see fit to register for both courses.

With the permission of the instructor, upper division students who have had a previous course in biology, and who undertake a special project of their own, may register for upper division credit (Biol. 121).

Each student will provide his or her own sleeping bag and camping equipment. Transportation and food on the trips will be arranged for at cost, and should not prove unduly expensive.

Any who are interested in the course are invited to communicate with

Dr. James Stauffer, Department of Biology and Geology
Dr. Francis G. Gilchrist, Department of Biology

Lewis and Clark College
Portland 1, Oregon Phone, CIrcle 7531

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LUNCHEON NOTES

May 1, 1952: There were present President Norris B. Stone; Estelle Conner and her guest, Mrs. Hazel Laughton; May Bushby; Ada Henley; Mildred James; and Messrs. Baldwin, Bushby, Elder, Erickson, Keen, Libbey, Schminky, Simon, Stevens, Stanley, and Vance. . .President Stone called attention to the need at Barnes Hospital for material suitable for use of patients in the lapidary shop, recently installed. He also spoke about the "Past Presidents' Book" and the difficulty of getting a portrait of Leo Simon needed to bring the volume up to date. . .Mr. Simon said that Mr. Carter of Longview guided the Simons and Bushbys to the Oregon side of the Columbia where they were shown an unusual arrangement of black lava dikes and sills, and columns at various angles in the Goble formation of the Miocene period. . . Several photographs showing activities on the Longview trip were circulated by Mr. Bushby. . .Mr. Baldwin had photographs of the home of Mr. and Mrs. E. N. Bates, showing their border of dead poison oak. . .President Stone said that Mr. Erickson

had mentioned the need for a list of recommended readings on geology written in language easily comprehended by beginners. . .Dr. Stevens mentioned the geological excursion to the John Day valley this coming summer, for boys. . .Miss Henley picked up the following gem somewhere in her literary wanderings: "J. R. Wilson, Salt Lake City, worked the graveyard shift at the Coffin mine at the head of Dead Man's Gulch near Tombstone Flat in the Funeral Range 25 miles from Poison Springs in Death Valley." (Sequoia Bulletin, reprinted in Mineral Notes and News, April 1952.)

* * * * *

May 15, 1952: Seven members of the staff of the Oregon State Department of Geology and Mineral Industries were present at this meeting. Mr. Libbey, chief of the department, introduced his assistants: Messrs. Matthews, Ramp, and Stewart; and Miss Steere, Mrs. Stewart, and Mrs. Owen. Others present were President Stone, Mrs. Bushby, Mrs. Conner, Miss Henley, Mrs. Simon, and Messrs. Baldwin, Bushby, Erickson, Hancock, Keen, Schminky, Simon, Stanley, Vance, and Wilbur. . .Mr. Erickson had specimens of male metasequoia foliage and a cone. . .Mr. Hancock brought specimens from a point 2.6 miles east of the Ochoco summit marker. . .Mr. Wilbur had part of a fossil fish from the West Branch Creek area. . .Tom Matthews called attention to a magazine article about measuring the height of the world's highest waterfall, 3,212 feet, about 19 times the height of Niagara Falls. . .Mr. Libbey had a specimen of vermiculite from Libby, Montana, . . .Miss Henley called attention to an illustrated article by Jane Erickson in the Oregonian Sunday Magazine of May 5, 1952, "Chasing Ghosts on the John Day." It told of a visit to GSOC members, Mr. and Mrs. Gail DeWitt of Bates, Oregon, and a side trip to the ghost town of Greenhorn. Mr. DeWitt told her about the finding of a gold nugget, "About the size of a flatiron," which was valued at $1,408.16, and sketched for her the history of the mining region in the vicinity of his home. . .Past president F. W. Libbey told, briefly, of being initiated into the order of the Grants Pass Cave Men. A part of the ceremony, he said, was eating raw meat and drinking "tiger's blood."

O.E.S.

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DR. W. CLAUDE ADAMS ON "PAPERMAKING"

How wrapping paper was first made from straw, then groundwood pulp (cottonwood) and many other interesting items of the "History of Papermaking in the Pacific Northwest," makes good reading in Dr. W. Claude Adams' (GSOC charter member) book of that name, just recently published.

We take the availability of paper for our printing and publishing needs here in the United States very nonchalantly indeed, when we consider the very large amount used here, compared to the rest of the world. The exact figure isn't available to us right at present, but it is a very high percentage of the entire world supply. Considering this fact, Dr. Adams' story of the beginning, growth, and present status of "Papermaking" becomes doubly important.

J.E.

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ADVANCE NOTICE!

Our "East of the Cascades" editor, Phil Brogan, has given us advance notice of an article by Dr. Howel Williams in which Dr. Williams advances a startling theory relative to origin of the massive pumice deposits in the Deschutes gorge near Bend. Watch for it in your July News Letter!

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"Have you paid your dues?"

MEMBERSHIP LIST
As of May 15, 1952
Compiled by Mrs. Johanna Simon

Name	Address	Zone	Telephone
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Allison, Dr. & Mrs. Ira S.	2310 Harrison, Corvallis, Oregon		
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#Stevens, Dr. & Mrs. J. C.	434 N.E. Royal Court	15	EA 9333
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Weber, Dr. & Mrs. D. E.	404 S.E. 80th Avenue	16	KE 7340
Weinzirl, Dr. & Mrs. Adolph	3536 N.E. 27th Avenue	12	GA 5706

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Zimmer, Miss Hazel F.	805 S.E. 60th Avenue	15	EM 8319
Zimmer, Miss Ruby M.	805 S.E. 60th Avenue	15	EM 8319

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Hampton, Eugene	7776 S.W. 5th Avenue	1	CI 7788
Waack, Miss Carol	301 N. Alberta, Apt. C	11	MU 6607
Walker, Richard	3526 S.W. Nevada	1	CH 5563
Wheeler, John F. (O'Connor)	c/o Mrs. Robt. L. Forrest, 2644 N.E. Bryce,	12,	GA 4679

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Olmstead, Mr. Geo. C. 1129 James Blvd., Signal Mountain, Tenn.

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ADVENTURE OVER THE HILL

Feeling a yen for a good soaking of sunshine, we left Portland February 25 for a month's vacation through California. The brilliant furze on the coast highway was beginning to bloom -- would have made a good picture, but it was raining.

Two wonderful days with the Bates' in their lovely new home overlooking the Bay at Sausalita. Then on to the Petrified Forest near Calistoga and Valley of the Moon, Carmel, Santa Barbara. Still damp. On to L.A. in a pouring rain, 3 inches in 24 hours. Got stuck in a flooded area, and sat there helpless until another car pushed us out and up the hill. Sunshine, did you say?

A short visit with Ruth Coats at Carlsbad where they have built two large houses on the hill above the town with a wonderful view of the ocean -- so they said. All we could see was the downpour and black clouds. Ruth asked to be remembered to all GSOC'ers, especially the Simons.

A day at LaJolla with friends then on to San Diego. Into Mexico where we stayed over night at Ensenada. Then back to San Diego, over the mountains to El Centro and up the Salton Sea. Water was high and some houses flooded. From Mecca east through Joshua Tree National Monument and Twenty Nine Palms. At San Bernardino - a cold rain was falling. Then over Tehachapi Mountains in a snow storm.

At Sacramento we called the Treashers, but Ray was out helping catch all this snow pack behind the dams. On the way up more wind, more rain, more fog, and home.

This "adventure over the hill" should end with our arriving in Portland in brilliant sunshine. But we didn't and it doesn't. It was raining!!!

Mr. and Mrs. Ray Baldwin.

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THE HUMORIST

By
Jean Stephen Johnston

The multi-million span of years had passed
The pendulum of Time had ceased to swing;
All tribes of earth, the mendicant and king -
Had laid aside all robes of paltry caste.

Saint Peter beckoned one man with his staff;
"I've waited long," he said, "you've come at last;
The front seat, Son, is yours; you made folks laugh!"

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"Have you paid your dues?"

GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - July 1952

Thursday July 3	Luncheon Meeting at YMCA (Taylor Street entrance - Cafeteria at left)
Wednesday July 9	Browsing fest at "Your Library and Mine" 7:30 p.m. Bushby residence, 1202 S.W. Cardinell Drive.
Thursday July 10	Luncheon Meeting at YMCA.
Friday July 11	Regular Friday night meeting Library Hall at 8:00 o'clock. Mr. James M. Orr, President of the Orr Engineering and Chemical Co., will tell about the production and uses of Scappoose limonite. Mr. Orr will bring slides and samples of the various products for which limonite is used.
Sunday July 13	Field Trip -- See details below.
Thursday July 17	Luncheon meeting at YMCA
Wednesday July 23	"Browsing time" at "Your Library and Mine" 7:30 p.m.; the Bushby residence, 1202 S.W. Cardinell Drive.
Thursday July 24	Luncheon Meeting at YMCA.
Friday July 25	Regular Friday night meeting Library Hall at 8:00 o'clock. Miss Ellen James, on assignment to Pacific Coast area by U.S. Geological Survey, will speak on "A New Miocene Marine Invertebrate from Coos Bay, Oregon"; also about some of her experiences in Washington, D.C., where she has been working with the Survey.
Thursday July 31	Luncheon Meeting at YMCA.

FIELD TRIP - SUNDAY, JULY 13

Our field trip for July will be a joint one with the Salem Geological Society on Sunday, July 13.

We will meet in front of Collins Hall at the Willamette University at 10:00 o'clock a.m., Daylight Saving Time.

Professor Herman Clark of Willamette University will lead the trip which will be to Oligocene fossil beds and other locations.

We will have a picnic lunch at Helmich State Park on the Luckiamute River. Hot coffee will be furnished.

* * * * *

Friday August 8 Don't forget the date of the Annual Picnic. Friday night, August the 8th, Volcano area, Mt. Tabor Park. (See next page for further details.)

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ANNUAL PICNIC - Mt. TABOR PARK - AUGUST 8!

Circle the date - August 8.

Somewhere along the line there was a mix-up on the date for out Annual Picnic and the date given in last month's News Letter was incorrect. The date is Friday evening, August 8, at 6:30 o'clock. The place is the same as last year, Volcano area of Mt. Tabor Park.

Again, the picnic will be cafeteria style. Bring one dish only, large enough to serve at least four for each person in your group. In other words, if there are three in your group, make a quantity of the one thing that you bring to serve twelve.

Bring the same type of food you brought last year. Those who furnish hot dishes, an empty utensil to fill with hot water for use under the dish holding the hot food is very important. New members should telephone picnic chairman Mrs. Albert Keen, GArfield 0229 for suggestions as to what to bring. Coffee, sugar and cream, also hot buttered rolls will be furnished. Bring your own plates, cups, and eating utensils. Also proper utensil for serving the dish you contribute.

After the picnic supper, we will all repair to nearby "Volcano Theatre" for group singing and the usual jamboree in charge of R. F. Wilbur, entertainment chairman.

Come and bring a friend!

Mrs. Albert Keen, Chairman.

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GSOC TO DEDICATE PLAQUE

SPECIAL ANNOUNCEMENT: Sometime before August 26, 1952, the Bureau of Parks and Recreation has agreed to let us dedicate a brass plaque to be placed in the crater of Mt. Tabor Park at one of their evening programs in Volcano Theatre.

We are anxious to hear immediately from our interested membership and especially our geologists giving their ideas of what should appear on this plaque that would be the most informative to the public of Mt. Tabor's history and origin.

Sit down RIGHT NOW - draw up a rough draft of what your ideas are and mail them to our plaque inscription chairman, Mr. F. W. Libbey, State Department of Geology and Mineral Industries, 1069 State Office Building, 1400 S.W. 5th Avenue, Portland 1, Oregon, so that it arrives in his hands not later than July 15th.

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NEW MEMBERS

Mr. and Mrs. Carl Harnisch
Rt. 2, Box 335
Albany, Oregon
Phone: Albany 2667R4

Mr. and Mrs. Ray L. Martin
Rt. 1, Box 192
West Linn, Oregon
Phone: Oregon City 5360
Bl - 1-2662

The Harnisch's, we understand, are members of the Salem Geological Society and interested in all aspects of geology. The Martins have an older son who is geology minded.

Welcome, new members, to our group. We hope you can take part in all of our activities!!

GLOWING AVALANCHE DEPOSITS NEAR BEND, OREGON

(The following article was secured for News Letter readers through the good efforts of GSOC member at Bend, Mr. Phil Brogan. In it, Dr. Howel Williams, University of California geologist and author of various works dealing with Oregon geology, has advanced a startling theory relative to origin of the massive pumice deposits in the Deschutes gorge near Bend. The deposits originated, Dr. Williams outlines in the following article prepared for the GSOC News Letter, as glowing avalanches of pumice. In a study of the area this past summer, Dr. Williams found evidence of three different flows, one of which apparently choked the gorge when it still carried a heavy flow of water.)

By
Dr. Howel Williams

Recent deposits of rhyolitic or dacitic pumice and tuff border the Deschutes River for several miles to the north and south of Bend. The earliest of these deposits is a sheet of compact, pale pink tuff averaging between 30 and 50 feet in thickness. It extends from about 2 miles south of Bend to the vicinity of Twin Bridges, about 8 miles north of town. Nowhere does it spread far to the east of the Deschutes River, but in the opposite direction it spreads locally for at least 4 miles. Clearly this pink tuff was laid down by incandescent avalanches that swept down the old canyon of the Deschutes following a gradient almost precisely the same as that of the present river. The eruptive vents lie somewhere to the south, but probably they are concealed beneath younger lavas from Newberry volcano.

After deposition of the compact pink tuff there followed an interval of erosion and deposition. The top of the tuff was slightly denuded and covered by lenticular beds of river-borne basaltic sands and gravels. Subsequently a second glowing avalanche swept down the canyon. This left a sheet of coarse, white granular, almost unbedded pumice which averages about 30 feet in thickness and includes pumice lumps up to 18 inches across. Its source must lie at least 6 miles south of Bend and perhaps it may be found on the flanks of the Newberry volcano near McKay Buttes. Northward these white avalanche deposits have been traced as far as White Rock Ranch, 10 miles north of Bend, and their washed, waterworn equivalents extend beyond, at least as far as Cline Falls. In its northward rush, part of the avalanche spilled out of the Deschutes canyon to cross the low divide between Aubrey and Overturf buttes, on the western outskirts of Bend.

Above this avalanche deposit rests a thin bed of fine, almost flourlike white pumice. Probably this represents some of the finer avalanche debris that settled slowly from the choked waters of the Deschutes River.

Shortly afterward a third incandescent avalanche of coarse lump-pumice swept down the valley, presumably from the same source as the second. In places it left a sheet of debris 15 feet in thickness, easily distinguished because of its pale pink color. There can be no doubt that this color was produced by the oxidizing action of fumarolic vapors escaping from the pumice itself. The presumption is, therefore, that this last avalanche remained hot and continued to emit gas for a long time and that most of it, if not all, was deposited on dry land. The underlying white pumice, on the other hand, must have cooled and lost its gas quickly, probably because it was admixed with river water.

Upwards the pink pumice merges into an old soil which is buried by fluviatile sands and gravels, capped in turn by basaltic lavas. These last form the present rim of Deschutes canyon and extend over a vast area around Bend.

After all of the foregoing beds had been laid down and the Deschutes River had channeled through them almost to its present depth, other flows of basalt were erupted and some of them are now to be seen as remnants on the canyon floor.

Much more field work must be done before a complete picture can be drawn of this postglacial history. Doubtless the record is more complex than that just presented, and when properly deciphered it will throw light not only on the late volcanic history of the country around Bend but also on the final states of evolution of the Deschutes canyon. The problem is a fascinating one and merits close attention.

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AN EVENING AT GSOC LIBRARY - June 11, 1952

Though it was the rainy eve of the Rose Queen Coronation, ten members joined the Bushby's at their home for library perusal. Reading and conversation centered on geology and some books were checked out. There is room for class study as a group or choice of retreating to another room for quiet reading. One guest jilted geology for art but any group needs a little aesthetic appreciation.

As a surprise feature, the Bushby's later showed several slides of crystals. Amateurs guessed with comments such as "That may be Musty Muscovite but it looks like firewood! Is that Malachite or a dinosaur bone? Looks like a surrealist painting." Experts corrected or May turned to her trustworthy list. We all had fun.

Ed Bushby tried serving fossil date seeds, nuts, and slivers of petrified wood for toothpicks, but Mr. and Mrs. "Billie" Clark came to the rescue with "coffee and....." Even the kitty was taken care of with dimes just to make these pleasant evenings a joint affair. During refreshment period, the Ford Wilsons showed choice mineral specimens from Arizona together with a "delicious" nut from the Clarno beds. We enjoyed looking at the Bushby's scrap book of past trips.

Besides getting acquainted with the library, these meetings are really study groups. Geology novitiates who desire a little information in addition to our bi-weekly lectures will benefit by circling these dates on their calendars. The next: Wednesday, July 9, and Wednesday, July 23. And bring a friend! Also, any suggestions for the 15-minute surprise affairs before coffee hour will be appreciated by our librarian.

E.I.C.

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FIVE-YEAR INDEX TO APPEAR IN AUGUST NEWS LETTER

Next month is vacation month for your News Letter. We will print our usual calendar, of course, but the balance of the August issue will be given over to "Five-Year Index" for the years 1945 to 1949 inclusive. This is a valuable addition to our News Letter record and one that we are sure GSOC members will find most usable in the future.

****

DR. RALPH W. CHANEY

Living Metasequcia in a land shorn of its beauty -- nearly all of its living trees - China; the comparative lush verdancy of Japan where living specimens grow alongside fossilized remains of the same species; the mosques and minarets of India; the Turkish fleet in the Bosporus and the little "candy-like" houses of Iceland --- these stand out in our mind as the high points of the very delightful and thought-provoking talk by Dr. Ralph W. Chaney at Library Hall. This on Saturday evening, May 24, to a mixed group of Mazama and GSOC members.

"Metasequoia" might be termed the title of Dr. Chaney's remarks as he gave a most comprehensive coverage of the discovery, identification, and history of our present knowledge of that fascinating "lost redwood" of ancient times. "Lost" that is, except for the few remnants still growing in central China and the relatively small number of planted specimens (through the help and enthusiasm of Dr. Chaney in providing seed) now growing in the United States.

The great need for wood in China, the supply of which might have been adequate had careful planning been adopted in time, was brought out starkly and forcibly in the slides shown by Dr. Chaney. These photographs showed where the branches, as many as two thirds of them in some cases, had been chopped off of the few remaining trees to fill the greatly needed wood supply.

Does this same threat apply to the forests of our own land? It does most certainly, unless a greater concerted effort is made to preserve our own trees. Not only does the loss of our forests denude us of needed timber, it destroys the places of our water storage and creates tremendous erosion problems! It happened in China and it can happen, is happening, here!

Dr. Chaney's account of his experiences in getting to the area where the Metasequoia trees grow in central China, most of it by hard "foot" climbing or cramped into a very uncomfortable sedan chair, his experiences in Japan where he was in contact with Dr. Shigeru Miki (to whom he gives a great deal of credit for making possible our present understanding of Metasequoia) and the slides shown of his trip, made a most outstandingly educational evening. We hope that Dr. Chaney can return soon and give us more of the same.

J.E.

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A FOSSIL LEAF CLINIC - SUNDAY, MAY 25, 1952

Some twenty amateur or would-be paleobotanists assembled at the Lon Hancock residence this bright sunny morning for a most interesting two and a half hours with Dr. Ralph W. Chaney, Paleobotanist from the University of California, at Berkeley.

Several tables were covered with specimens of fossil leaves, cones, etc., brought for inspection or identification. Dr. Chaney, chief diagnostician of the occasion, made the rounds of the tables, examining and classifying the various material. Leaves exhibited were from Molalla, Clarno, Buxton, Kelso, Clackamas River, Bilyey Creek, Goshen, Franklin Butte, Sweet Home, Stinking Water and other points. Many specimens from new localities were of such interest he decided a visit to them was imperative at the earliest possible date. He was particularly interested in material Lon Hancock had found at a location in the Clarno region, telling him, "I don't doubt your word, Lon. I just don't believe it can be

possible. This has to be Latah, in Idaho." several specimens were taken back with him for photographing or further study.

All too soon it was necessary for Dr. Chaney to leave to keep appointments in Salem and other valley points. This get-together was most interesting and educational and was thoroughly enjoyed by all. We were further honored by the presence of Dr. Ethel I. Sanborn, who needs no introduction. It is hoped that other meetings with Dr. Chaney can be arranged in the not too distant future.

Albert Keen.

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VARIOUS TALKS BY LEO F. SIMON

On April 4, GSOC member Leo F. Simon gave a talk to the Oregon Audubon Society on the subject "Water Birds of the Portland Area." On May 16 he spoke and showed slides to the Oregon Agate and Mineral Society on the Simons' trip through the Canadian Rockies of last year. (Remember the lime juice? Johanna reports Leo is still lamenting its loss.)

On May 22, he addressed the Salem Geological Society on the same subject.

On the 19th of June, Leo presided at an afternoon meeting in Corvallis of the American Association for the Advancement of Science and showed pictures that same evening to the American Nature Study Society.

We are very glad to know that many people throughout the state are thus having the advantage of hearing these most excellent talks of Leo's and seeing his very fine pictures. Leo has so much to say that we feel that his is a light that shouldn't be "kept under the bushel," and we approve most heartily of the interest shown.

J.E.

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LUNCHEON NOTES - Thursday, May 22, 1952

There were present Dr. and Mrs. Adams, Mr. Baldwin, Mrs. Bushby, Mrs. Conner, Mr. Elder, Miss Henley, and Messrs. Keen, Kelham, Schminky, Shirk, Simon, Stanley, Stone, Vance, and Wilbur. . .Mr. Stone, the presiding officer, was in good voice. He called attention to a series of programs arranged by the Bureau of Parks to be given in the "Volcano Theatre" on Monday evenings at 8:30 through the summer. The Geological Society of the Oregon Country has been allotted the evening of June 16th. It was suggested that Society members and their families have a picnic dinner before the program. The public will be invited to the program in the "theatre" which will probably be geological in its background and possibly mildly educational. . .Society Librarian May Bushby is in need of additional book cases--preferably sectional, oak, and made by Globe Werwicke. Mr. Kelham told of one that can be had for $90.00, but that is a lot of money. Who knows of a cheaper acceptable stack? . . .Historian Ada Henley proudly exhibited the "President's Book," calling attention to the latest acquisition, a photo of Past President A. W. Hancock, Honorary life member, leaving the only blank page in the book opposite the biography of Photographer, Leo Simon. You've heard about shoemakers' children, haven't you? . . .June 11 and 25 were announced as Library Nights, at the Bushby home, 1202 S.W. Cardinell Drive. . .Leo Simon extolled the virtues of a repellant for ticks and quickly had orders for a case of the "atomizing bombs" from members who expect to take part in the field trip to Condon, Fossil, and Painted Hills State Park where ticks are reported to be already intrenched.

O.E.S.

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THREE-DAY FIELD TRIP - MAY 30-31, June 1, 1952

Quite reminiscent of covered wagon days was the picture presented at Clarno nut beds about noon Friday, May 30, when some half hundred Geesockers "struck camp" for a three-day outing at Clarno, Fossil, and Mitchell, Oregon.

Led by Lon Hancock, most of us made for the nearby hills where several fine specimens of fossilized nuts and some leaf impressions were found in the Clarno (Upper Eocene) formation. Later in the afternoon, some of us thought that we were back in the days of the wagon trains for sure and that the Indians were attacking. However, the wild shrieks that reverberated through the hills were soon discovered to be from the two female members who were being taken for a ride up the mountainside by Mr. Howard Rose in his jeep. Junipers, gullies and ditches, rocks and bluffs, they were all one and the same to the intrepid Mr. Rose and his "leaping Lena."

That evening we gathered 'round to hear Lon Hancock give a short resumé of the geology and tell us some tales of the old timers of the area.

We broke camp early Saturday morning and traveled to Fossil, some of the late leavers negotiating the passage of a herd of 2,000 sheep on the way. Early that morning at Clarno we had been joined by our GSOC representatives of Bend, Mr. and Mrs. Phil Brogan. We dug in the school yard at Fossil in beds of fine-grained volcanic ash, said by Dr. Ralph Chaney to be of the Bridge Creek period. Loot collected were specimens of Metasequoia, cones, and leaves of various kinds. This bed is the most accessible and productive of any leaf location the society has visited. If anyone went away empty handed, they must not have been interested in fossils. Cars were riding lower, anyway, as they left the location for a picnic lunch stop at Shelton State Park.

After lunch we headed toward Mitchell over the Service Creek Road. There were some delays enroute for picture shooting as this is a most photogenic area. About 10 miles from Mitchell the caravan halted at a likely looking mammal locality. No mammal fossils were found, but a close-up look at nature's sculpturing more than repaid everyone for the hike across the fields. Leo Simon took the occasion to give us an interesting talk on the flora encountered on the way.

The next stop was made at the ammonite location about 4 miles north of Mitchell. Here also everyone seemed to have successful hunting in the Cretaceous sea bed. If someone could devise a method of harnessing the energy expended at some of these locations, he would be fixed for life.

Here the party divided, some going to a hotel in Mitchell for the night, while the more hardy proceeded to the camping area at the Painted Hills State Park. Later in the evening the entire group assembled around a camp fire for a general discussion of the day's events. Talks were given by Phil Brogan on the history of the area and Lon Hancock on its geology.

Next morning a stop at Lower West Branch Creek where leaf impressions were found and a drive into the Ochocos where we scouted the area of Lon Hancock's fish find of a few weeks previous (no catches, however) completed the three-day trip.

S.K.

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August Field Trip will be led by Dr. Ewart Baldwin into the Valsetz area. Good weather has been ordered for the occasion. Don't miss it!

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VOLCANO THEATRE - June 16, 1952

A small but enthusiastic crowd braved the chilly evening and gathered at Volcano Theatre of Mt. Tabor Park for a picnic supper on Monday, June 16, and the entertainment that followed. This was the first of the Natural Science meetings scheduled on Monday evenings at the theatre for the summer designated "The Living Earth," by the Recreation Bureau of the Park Department.

President Stone welcomed the assembly and then gave a short talk on the aims and benefits of GSOC. This was followed by group singing and a showing of slides of some of the beauty spots of Oregon by Leo F. Simon. Leo's explanation of the geologic features of Oregon's scenery that accompanied his very fine pictures, was a veritable feast of information, almost more than could be assimilated at one sitting. Right here, we predict a "future" for these talks of Leo's -- they are very outstanding.

The Park Department has made a real theatre at the site of our old "stomping ground" with paved stage, ramps, lighting, n'everthing. We Geesockers can feel proud of the interest we have taken through the years in this "volcano in the heart of Portland." The picnic spot and theatre will grow, we are sure, into a real pleasure for a great many people.

J.E.

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THE WEATHER

Mark Twain would have had to take a back seat had he been present at the talk on "weather" given by Dr. A. A. Knowlton, Professor Emeritus of Physics at Reed College at Library Hall Friday, June 13. Remember Mark's opining that "everyone talks a lot about the weather but no one ever does anything about it?"

That something is being done about it was brought out quite forcibly by Dr. Knowlton. As to all of the claims being made by the weathermakers, however, Dr. Knowlton took a conservative view. Time, and a great deal of consistent research, is necessary, he believes, before we can say just what can be accomplished along this line.

With the aid of a deep freeze and some silver iodide, he gave us a demonstration of rain making. Of course, much to the disappointment of all of us, he wasn't able to guarantee fine weather for all of our Geesocker trips, but neither did he say that it wouldn't be impossible in the future. We still have hopes!

Vice President Baldwin opened the meeting in the absence of President Stone, and Mr. Tom Matthews, Program chairman, introduced the speaker. We are grateful to Dr. Knowlton for this fine talk.

J.E.

****

Ssssh!

On the trail of a good story for the News Letter we asked an attractive young coed just what it was that led her to the study of geology.

"Oh, that's easy," she answered, brightly. "Just two words. But on second thought," she continued, a bit soberly, "Maybe you'd better not repeat them. He might not like to have his name come right our in print, n'everthing...!"

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HAVE YOU HEARD?

That Leo Simon on the Clackamas River trip, having obtained permission from the Forest Service for us Geesockers to enter along with a key that didn't fit at a crucial gate, "smelled out" a key hidden at a nearby stump that did fit and saved us a tough hike of some 3½ miles. . .That Carol Schminky, daughter of Mr. and Mrs. Bruce Schminky, has begun a course in nurses training in San Francisco. . . That we are full proud of junior member Miss Carol Waack (granddaughter of president Norris Stone) who won first prize in Novelty class at the Rose Festival. She rode, without benefit of saddle, a Pinto stud from Freeman's Stables near Troutdale, in the attire of an Indian Princess. (We mean, Carol, not the horse.). . .And proud a plenty also of junior member Greg Davis (Washington High) who was awarded a $1,000 scholarship at Stanford University. He also had the choice of a scholarship at Harvard and Oregon State. Greg will major in geology. . .President Stone informs us that Leo (fc) Simon is at work on a book entitled "Paradise Lost" and that it won't be published by the Bureau of Maps. (Note by Editor: We think all this ribbing Leo about getting "lost" is out of order. He did a beautiful job of leading our Clackamas River trip without once getting on the wrong road. Of course, the fact that after we got past the signposts that everyone could read, there was only one road and that it ran in just one direction with no turn offs may have had something to do with Leo's success.). . .That there is talk of nominating Mr. Golden as fire chief. While on our trip to the Ochocos, he discovered a blaze in his truck and with unaccustomed foresight for a Geesocker, produced a fire extinguisher and had the fire out in short order. . .The honor of possessing the biggest, best, and most perfect ammonite previously held by Mrs. Leonard Buoy is being seriously threatened by Mrs. Bruce Schminky's find at the ammonite beds near Mitchell. The calipers haven't been applied yet, but we understand the race is very close. . .Word comes that Dr. Hodge will be home from Africa soon. . .That Mr. Murray Miller came back from the Wallowas recently with a tub full of wild flowers gathered there. Looked like some twenty or thirty varieties. . .Aunt Minnie sends word that she will see you at the picnic. The date is August 8, six thirty, Mt. Tabor Park.

J.E.

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ROMANCE DEPARTMENT

Miss Ellen James, geologist with the U.S. Geological Survey who has been in Washington, D.C., arrived the latter part of June for her summer's work on Miocene Marine sediments along the Oregon Coast.

We inquired if the "sparkler" that she is wearing on her left hand was regulation Geological Survey equipment, and learned that it has something to with her engagement to one James V. A. Trumbull, geologist with the Fuels Branch of the Survey, and who is now located in Tulsa, Oklahoma.

The wedding is planned for some time this next year and we hope to meet the young man at that time. Good wishes and congratulations to you both, Ellen and Jim!

****

YOUR LIBRARY AND MINE

My column this month will consist almost entirely of acknowledgment for donations to the library. I am very happy that a united effort to increase the library's function to its membership has shown success in more and more items being charged out and a decided growth to the collection itself. For your library is really growing!

Thank you, President Stone, for the following donations:

(1) Mount Multnomah (Ancient Ancestor of the Three Sisters), by Edwin T. Hodge, August 1925.

(2) Archeologist Survey of the Guano Valley Region in Southeastern Oregon, by L.S.Cressman, University of Oregon in collaboration with others,1936.

(3) Petroglyphs of Oregon, L.S.Cressman, University of Oregon, 1937.

(4) The Dinosaur Book, by Edwin A Colbert, published by American Museum of Natural History, Handbook No. 14, 1945.
Note: beautiful paper, type, and illustrations. You can get acquainted with prehistoric monsters in a pleasant way.

(5) Animals of the Past, by Frederic A. Lucas, Am. Museum of Natural History, Handbook Series No. 4, 1939 (7th printing).
Note: In a none too technical language, this book fossils (how they are formed, etc.), earliest known vertebrates, the Dinosaurs, feathered giants, etc.

Thank you, Bruce Schminky, for the following donation: Four (4) issues of Gluck Auf (Montana School of Mines at Butte); dated June 1936, Oct. 1936, Oct. 1937, and Dec. 1937. Among the articles contained therein, are: "The Agate" (history of, varieties, etc.); "Geologic Aspects of Montana Water Conservation Projects"; and "Inscription Cave" (Indian caves near Billings of archeological interest).

And a thank you to Mr. and Mrs. "Billie" Clark and Edward Bushby for a total of 15 hours which were spent in June just to make the collection more presentable in appearance and more easily accessible to readers. Won't you join us on library fest nights, Wednesday, July 9, and Wednesday, July 23?

Yours in the interest of Your Library and Mine,

May R. Bushby, Librarian

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GOOD BULLETIN AVAILABLE

Mr. Henry Grosshans, who is head of the Editorial Department of the State College of Washington Press at Pullman, Washington, notifies us that the May 1950 issue of Northwest Science, which, as mentioned in the May News Letter, contains the symposium on Columbia River basalt, can be obtained for 50 cents per copy.

This particular issue, like all good publications, will no doubt soon be out of print and it would be well for anyone wishing to obtain a copy to do so now.

MLS.

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LUNCHEON NOTES

May 29, 1952

Present at this luncheon, were President Norris Stone, and members R. L. Baldwin, May R. Bushby, Estella Conner, Rudolph Erickson, Albert Keen, Edward Kelham, T. C. Matthews, Howard Rose, H. B. Schminky, Leo Simon, Orrin E. Stanley, and Ford E Wilson. . .Mr. Erickson had specimens of shells (Spisula eugenensis) from a point between Scotts Mills and Wilhoit in a road cut through massive sandstone 0.7 miles from the junction of the Wilhoit road in Scotts Mills. . . President Norris Stone brought another book for the Society library. It is Professional Paper No. 220, U.S. Geological Survey, entitled "Geology and Geography of the Zion Park Region of Utah and Arizona." He has recently given to the library about 20 books suitable for beginners in the study of geology. They may be borrowed by members by asking Librarian May R. Bushby for them. . .Ford E Wilson told about a very good book for beginners in the study of geology which may be secured, one copy to an applicant, by writing to "Bureau of Mines, 4800 Forbes St., Pittsburgh, Pennsylvania" and asking for "Report of Investigations No. 4853." . . . Rudolph Erickson told of the "Fossil Leaf Clinic" at the home of A. W. Hancock on Sunday, May 25, with Dr. Chaney as "moderator." Mr. Hancock had found a fossil fish where only leaves were supposed to be allowed. Such things are confusing to a professor who has already decided that such a thing is impossible. . ."The Story of the Minerals" by Herbert P. Whitlock, and "The Book of Dinosaurs" by Edwin H. Colbert, both presented to the library by President Stone, were circulated. . . Following a discussion of publicity for field trips which has recently been at a low ebb, Mr. Rose said that he first learned of the G.S.O.C. through a newspaper notice of a trip and joined the Society as a result of that trip. He said that his knowledge of geology had enabled him to understand the topography of the territory covered in a recent aerial trip to Arizona. He mentioned particularly faults and the effect of erosion. . .It was announced that the "Five-Year Index of the Geological News Letter" has been completed by Helen Haven and will soon be published.

O.E.S.

* * * * * *

June 5, 1952

Eleven members gathered as the noon whistles were sounding and were greeted with a cold plate luncheon warmed somewhat by hot tomato soup and not so hot coffee. The ice cream was good. Chief topic ----reminiscences of the recent trip to the fossil beds of central Oregon. The unfortunate few of us who didn't go sat and listened with our mouths open and tried to grasp the picture. Mrs. Bushby helped by passing around several excellent photos taken on the trip. . .Mr. Shirk gave a short talk on the present status of the Audubon Screen Tours given annually under the auspices of the Museum Foundation, and discussed a proposal to open them to the public free of charge if adequate financial support can be secured. . .Mrs. Bushby mentioned her need for help in cataloging material in the library. . . Mr. Libbey passed arcund a rare type of crystal the name of which the writer forgot how to spell; it came from near Ashland. . .Mrs. Bushby showed us a number of leaf prints garnered on the recent trip, including an excellent Metasequoia twig 3 or 4 inches long. It was pointed out that Metasequoia needles are opposite while those of more modern species are alternate. . .Problem of Luncheon place for July and August was discussed.

E.A.K.

* * * * * *

June 12, 1952

There were present: President Norris B. Stone, Mesdames Buoy, Bushby, and Conner, and Messrs. Baldwin, Elder, Erickson, Keen, Kelham, Matthews, Schminky, Simon, Stanley, Vance, and Wilbur. . .President Stone corrected a misstatement as to the date of the annual picnic which will be on August 8. . .Rudolph L. Erickson explained the route for the field trip, Sunday, June 15. . .A. D. Vance proudly showed a copy of Sets in Order, a square-dance magazine published in Los Angeles, which showed portraits of his daughter and son-in-law on the front cover. . .May Bushby reported that twelve people visited the society library on Wednesday, June 11. She also had many fine photos of the Memorial Day field trip. . .Rudolph Erickson suggested that the Society buy several late geological textbooks to add to the library. . .Several thoughtless members persisted in talking while the president or another member had the floor. Very confusing for the reporter and the president.

O.E.S.

* * * * *

June 19, 1952

Present were President Stone, Mrs. Leo Simon, Mrs. May Bushby, Mrs. Barr, Mrs. Carl Richards of Salem, and Messrs. Libbey, Schminky, Matthews, Vance, Bushby, and Keen. . .Announcement was made that the Chamber of Commerce dining rooms would be closed during the months of July and August and that luncheons would be held at the Y.M.C.A. during these two months. . .Mrs. Barr exhibited two beautiful specimens of blue calcite from the famous Crestmore, Riverside County, location in California. Here the blue calcite occurs in contact zones in beds up to 50 feet in thickness and is Mississippian in age. . .Bruce Schminky passed around pictures taken by Mr. Stanley on the Memorial Day trip into Central Oregon. . . Rudolph Erickson brought four specimens of rock picked up on our field trip into the Estacada country June 15. However, due to the 'poor light' no one would positively identify them.

A.K.

* * * * *

June 26, 1952

The eighteen people who met for luncheon at the Chamber of Commerce on June 26th were: R. L. Baldwin, Edw. D. Bushby, May R. Bushby, Estella Conner, G. V. Elder, Rudolph Erickson, Ada Henley, Dr. Ruth Hopson, Margaret Hughes with her nephew, John Dunham,(who came from Fenelon Falls, Ontario, to go with the museum expedition to the fossil beds near Clarno), Mr. and Mrs. Albert Keen, F. W. Libbey, T. C. Matthews, Leo Simon, President Norris Stone, Orrin Stanley, and Robert F. Wilbur. Mrs. Baldwin was also present, but too late for luncheon. . .Dr. Hopson is teaching in Portland for a few weeks. She was recently elected president of the American Nature Society, Western Branch. She told of a pack trip planned, proposed by the Obsidians in the Three Sisters area which the Forest Service is promoting for a protected area. This year the trip will be along the south fork of the McKenzie River. It is to last three days and the Obsidians plan to hike ten miles a day. . .Dr. Ewart Baldwin will conduct the August G.S.O.C. trip into the Valsetz region with which he is very familiar. . .Attention was called to a play by Jane Erickson which is to be produced at Reed College in July. . .The Park Bureau expressed appreciation to the G.S.O.C. for putting on the initial program in Volcano Theatre. . .Suggestions were requested by President Stone for an inscription to be used on a plaque to be placed by the Park Bureau in the crater on Mt. Tabor. . .R. L. Baldwin had a piece of petrified wood which he picked up on the Columbia River Highway near the Bonneville Fish Hatchery. . .Rudolph Eriskson called attention to an article in the Oregon Historical Quarterly about the Bridge of the Gods.

O.E.S.

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GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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Mr. Louis E. Oberson (1953) Mr. A. D. Vance (1953)
Mr. Ford E Wilson (1954)

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Flora Editors:	Leo F. Simon	Mrs. Leonard M. Buoy		
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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - August 1952

Thursday, Aug. 7 - Luncheon Meeting - YMCA - no reservation necessary

Friday, Aug. 8 - ANNUAL PICNIC - 6:30 p.m. - Mt. Tabor Park - Call Mrs. Albert Keen, GArfield 0229, for further information.

Sunday, Aug. 10 - Dr. Ewart Baldwin will lead the GSOC'ers on a trip to the Valsetz country. Will assemble caravan at 10:00 a.m. (DST) at Falls City. There might be an opportunity to collect some fossils on this trip.

Wednesday, Aug. 13- "Library Browsing Fest" at Mr. and Mrs. Edward D. Bushby's - 1202 S.W. Cardinell Drive - 7:30 to 10:00 p.m. - Only one such evening this month, so why don't you make this a date?

Thursday, Aug. 14 - Luncheon Meeting - YMCA - Come, you members who cannot attend in the fall and winter months, and bring a friend.

Thursday, Aug. 21 - Luncheon Meeting - YMCA - bring yourself, a friend, and a geological specimen.

Friday, Aug. 22 - This Friday night meeting has been CANCELLED.

Thursday, Aug. 28 - Luncheon Meeting - YMCA

Aug. 30 to Sept.1 - Three-day trip. Details will be announced at meetings and luncheons.

Thursday, Sept. 4 - Luncheon Meeting

Friday, Sept. 12 - Regular Friday meeting - Library Hall - 8:00 p.m. One of our Junior members, John F. Wheeler, will speak to us on "New Metals - as used in rockets, flying saucers, etc."

* * * * *

ANNUAL PICNIC

The GSOC plaque for Mt. Tabor Volcano will be dedicated by Dr. J.C.Stevens at the Annual Picnic, August 8!

* * * * *

We are welcoming into our society as new members:

Phone

Mr. and Mrs. Leslie C. Davis, 7704 S.E.Taylor Street, Portland 16, KE 6723
Mr. Davis is a retired locomotive engineer and is interested in General Geology.

* * * * *

NEWS OF OUR SALEM FRIENDS

Mr. Reynolds W. Ohmart of the Salem Geological Society reports that Dr. Ralph W. Chaney will lecture at Salem (Willamete Campus) on Thursday, August 21, 8:00 p.m. (Standard Time). Their annual picnic will be held on August 17 at the home of Mr. and Mrs. Carl A. Harnisch, Albany, Oregon.

* * * * *

G.S.O.C. LUNCHEON - July 3, 1952

Twelve members and three guests gathered at Y.M.C.A. dining room for the first luncheon this summer at that location. In the absence of President Norris Stone, whose birthday it was, Vice Pres. Raymond L. Baldwin presided. Other members were: Dr. Ewart M. Baldwin, May R. Bushby, George V. Elder, Rudolph Erickson, Arthur Keen, Edward A. Kelham, Leo F. Simon, Orrin E. Stanley, Albert D. Vance, and Robert F. Wilbur. . . . .Vice President Baldwin introduced his guest, Mr. John Welch, and

Dr. Ewart Baldwin presented two graduates from the University of Oregon: Allen Merewether and Howard Gower. . . . .The general good feeling of the group, or the hot weather, loosened the tongues of the members so that most of the time five or more people were talking at once, making the gathering of data unusually difficult, and reminding the reporter of the old German saying: "'Much cry and little wool,' as the devil said when he sheared a pig." Dr. Ewart Baldwin will lead our GSOC trip on August 10 to the Valsetz locality. . . . .Mrs. Bushby showed some interesting photographs taken by "Eddie" on the Estacada trip.

O.E.S.

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SOCIAL COMMITTEE

The Social Committee this year consists of: Mr. and Mrs. Norris B. Stone, Mr. and Mrs. Albert Keen, Mr. and Mrs. Murray Miller, Mr. and Mrs. W. F. Clark, Mr. and Mrs. Leo Simon, Mrs. Estella Conner, Mr. Orrin E. Stanley, Mr. Edward Bushby, and Social Chairman, Mrs. May R. Bushby. Please bring to the attention of any one of these 14 members of the committee facts regarding illness or hospitalization of members of the society. We are interested in their welfare. Cards and visits are usually appreciated. We feel that the Society as a whole does not know that this is a function of the Social Committee. Please help to keep us informed.

M.R.B.

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HAVE YOU HEARD?

That Jane Erickson's play "The Mighty Fortress," produced by Reed College, July 24 - 27, was attended by nearly 100 GSOC'ers the opening night? Performance was excellent and we are very proud of our own playwright member. . . . .That Dr. Edwin T. Hodge has returned from a trip to Africa and at the luncheon July 17 gave us some of the interesting facts; that he enlarged upon this information at the evening meeting of July 25 when he shared the program with a former student of his, our own Ellen James, who very ably lectured on marine fossils of Coos Bay area which included a new Miocene find which she was the first to discover. . . . . That Mary Davenport worked in the GSOC library for some 6 hours during July? President Stone kept her and the librarian busy cataloging all the fine donations he has made since June; and that Mary will be our young hostess at the next Library Browsing night, Wednesday, August 13. Let's make it worth her while by showing up en force. . . . .That we would like <u>volunteers</u> for the 15-minute surprises which are followed by our "coffee and." This half hour of study seems to be enjoyed by all at these library get-togethers. . . . .That our Junior Members are among the most enthusiastic attendants at the Library Browsing nights?

M.R.B.

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CONGRATULATIONS TO JANE ERICKSON - PLAYWRIGHT

An astounding amount of publicity resulted from the production by Reed College of "The Mighty Fortress." <u>Oregon Journal</u>: "Oswego's talented lady playwright. . ." "A thought-provoking drama. . ." "The two-act play is an absorbing production," etc. <u>Oregonian</u>: ". . .dramatic story of the Whitman massacre. . ." ". . .a large audience watched." The <u>Oregonian</u> also published a biographical sketch of Jane. Our capable "Ed." is a homemaker; has raised three children; has four grandchildren; writes poetry and magazine and newspaper articles; dabbles in color photography; and is a fanatic gardener. Jane has won six prizes for her six plays, three of which she has seen produced to date.

Again, congratulations, from your geological friends, Jane!

M.R.B.

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Helen Haven

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnomah and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - SEPTEMBER 1952

Thursday Sept. 4 — Luncheon Meeting - Room 305 YMCA Cafeteria.

Thursday Sept. 11 — Luncheon Meeting - Room 305 YMCA Cafeteria.

Friday Sept. 12 — Regular Friday night meeting at Library Hall, 8 o'clock p.m. Dr. Arthur C. Jones will give brief impressions of European geology and geography.

Thursday Sept. 18 — Luncheon Meeting - Room 305 YMCA Cafeteria.

Wednesday Sept. 24 — Library Night at "Your Library and Mine" Residence of Mr. and Mrs. Edward Bushby, 1202 S.W. Cardinell Drive.

Thursday Sept. 25 — Luncheon Meeting - Room 305 YMCA Cafeteria. (Check on Bulletin Board near elevator for possible change of room number.)

Friday Sept. 26 — Regular Friday night meeting at Library Hall, 8 o'clock p.m. Vacation Slides. If you have some new slides that might interest other GSOC'ers call Tom Matthews, COlumbia 2161, Ext. 488.

Tuesday Oct. 7 — Library Night at "Your Library and Mine" Residence of Mr. and Mrs. Edward Bushby, 1202 S.W. Cardinell Drive.

SEPTEMBER FIELD TRIP

Sunday Sept. 28 — There will be a Field Trip to The Dalles on September 28. The leader will be Mr. Lloyd L. Ruff, Geologist for the Portland District Corps of Engineers. Members are to assemble at the school yard in the west end of Mosier on US30, 7 miles east of Hood River, at 9:30 a.m., Daylight Saving time. Mr. Ruff will take over from there and will lead us to several points of geological interest in and near The Dalles. Bring your own lunch.

CHANGES OF ADDRESS AND TELEPHONE NUMBERS

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GSOC LUNCHEON NOTES

Thursday, July 24, 1952

President Norris Stone "played to a full house" in presiding on this occasion. A few extra plates were set to complete the jolly horseshoe. No casualties were apparent from sunburn or poison oak encountered on the recent field trip along the Luckiamute. . . .Miss Ellen James was introduced as having been formerly remembered in the role of one of the junior "Geesockers" who had a way of turning up some of the most interesting specimens on our field trips. Miss James is now in the employ of the U.S. Geological Survey and will address the Society meeting of July 25 on the subject of a new Miocene marine invertebrate found in recent dredging operations in the Coos Bay channel. . . .With news of the recent serious quake at Tehachapi, California, still on the air and in the press, Bruce Schminky circulated a most interesting aerial photograph of a portion of the San Andreas fault taken over an area some 20 miles west of Tehachapi. On a map of California accompanying it he had traced the path of the fault from San Francisco Bay to Mexico, explaining that another one known as the Bear Mountain fault, approximately at right angles to the San Andreas fault, had been found responsible for the disaster at Tehachapi. The aerial photograph had been obtained from a former member of the 29th Engineers. . . .Several fossil specimens were passed around for examination. One submitted by Dick Walker, found in the Finzer railroad cut on the recent field trip from Salem, was thought by Miss James to be of plant material. Another, collected by Bob Wilbur in the Oligo-Miocene shales of Short Sand Beach in Tillamook County was identified by Miss James as the large gastropod Echinophoria formerly known as Galeodea.

* * * * *

R.F.W.

Thursday, August 7, 1952

R. L. Baldwin read parts of a letter from E. N. Bates that were interesting to the members who know Mr. Bates. . . . .H. B. Schminky reported that he and his family had made a vacation trip to Yellowstone National Park. . . . .Dick Walker had two brachiopod specimens which he picked up from what he believed to be an Odrovician deposit. . . . .Orrin Stanley reported having spent two weeks at the California camp of the National Audubon Society where the members were all awarded honorary membership in the Junior Audobon Club. . . . .Dr. Stevens told of the completion of arrangements for placing an explanatory plaque in the crater on Mt. Tabor. . . . .Those present were: R. L. Baldwin, E. D. and Mrs. Bushby, Estella Conner, G. V. Elder, Dr. Ruth E. Hopson, Albert Keen, E. A. Kelham, H. B. Schminky, Stanley Shirk, Leo F. Simon, Orrin Stanley, Dr. J. C. Stevens, H. F. Travis, A. D. Vance, Dick Walker, and John F. Wheeler.

O.E.S.

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KEEN-SCHMIDT WEDDING A SEPTEMBER EVENT

News has just come to us of plans for the forthcoming marriage on September 6 of Miss Carolyn Ann Keen, daughter of GSOC members Mr. and Mrs. Albert Keen, to Mr. David F. Schmidt, electrical engineering major at Oregon State College.

The young couple have known each other the past several years through their congenial interest in the Portland Junior Symphony Orchestra, both being members of that organization. They will live in Corvallis, he having one more year's work there in his chosen field.

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CLACKAMAS RIVER FIELD TRIP

Sunday, June 15, 1952

By

Dr. F. G. Gilchrist

The GSOC trip up the Clackamas River on June 15, 1952, gave us amateurs something of the same exhilaration which we get when we go up the Columbia River Gorge; for the Clackamas River, like the larger stream, has cut deeply into the heart of a great mountain range, and has laid bare rock records of many millions of years of earth history. In fact, the Clackamas has apparently uncovered rocks one epoch older than the oldest rocks in the Columbia Gorge. We also had the pleasure of picking up leaves and a few nuts that once grew around a mountain lake on the soft shoulder of old Mount Clackamas. But let us describe our trip in order.

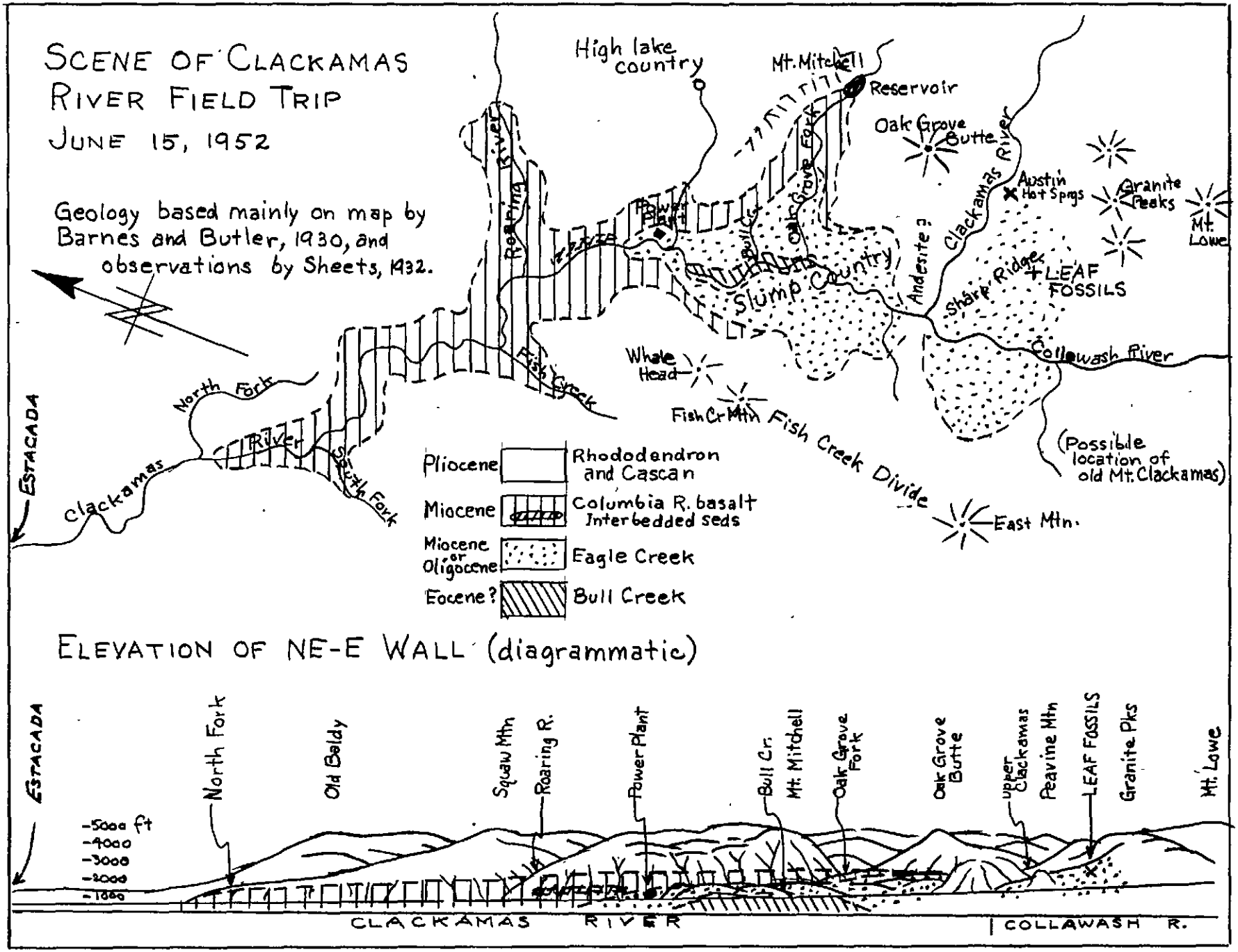
We gathered at the road fork just east of Estacada at nine a.m., and proceeded as a caravan of nineteen cars southeastward along the north bank of the river. At first the rocks along the road were the agglomerates and lavas which Treasher (1942) mapped as "Boring." But we shall let professional geologists worry about names and shall call this entire upper layer of our Cascade layer cake "Rhododendron" and its lava icing "Cascan." Both are Pliocene in age. At one particular point we could look up the canyon and see the shoulders of the gorge rising higher and higher into the distance. We were looking up the approximate initial surface of the andesitic flows which completed the range (except for the fancy trimmings, Mt. Hood, Mt. Jefferson, etc., which were later added).

Soon after passing the North Fork we entered the dark columnar flows of Columbia River basalt. Once we stopped to look back at the cliffs, flow upon flow, which form the steep walls of the gorge. Was the apparent dip of the flows which we saw the initial dip of the flows; or had the Cascade Range bowed upward? Below us as we journeyed onward the beautiful Clackamas meandered at times in an inner trench. How does one account for these meanders in a rocky gorge? We may call these Columbia River basalts the middle layer of our Cascade cake, although it is not everywhere complete, as we shall see.

For a mile or so a horizontal bed of sedimentary rock about twenty feet thick and containing spots of lignite and fossil leaves lay at the side of the road. In fact it was the undercutting of this softer bed that made the terrace on which the road was built. Since basalt lies above the road and in the inner gorge below it, it is obvious that the sediments are intra-Columbian in age.

Just before coming to Three Lynx we passed across an unconformity. The lower contact of the Columbia basalts rose rather steeply above the road (although the beds are horizontal) and we encountered for the first time tuffs and agglomerates comparable to the Eagle Creek formation of the Columbia Gorge. This formation is Oligocene or early Miocene and may be compared to the John Day beds of central Oregon. It forms the bottom layer of our Cascade layer cake. Just at the point where the unconformity rises above the road a stump may be seen which obviously grew in Eagle Creek and was buried by the basalt flow.

The Eagle Creek formation is structurally very weak; and this accounts for the rapid broadening of the valley over which we next traveled, and for its slump topography, covered as it is with numerous ponds and meadows. Indeed, Mt. Mitchell to the north has been undercut by slides not unlike the Cascade slide up the Columbia Gorge which formed the "Bridge of the Gods." Its rocky face looks like a fault scarp.


SCENE OF CLACKAMAS RIVER FIELD TRIP
JUNE 15, 1952
Geology based mainly on map by Barnes and Butler, 1930, and observations by Sheets, 1932.
High lake country
Mt. Mitchell
Reservoir
Oak Grove Butte
Clackamas River
Austin Hot Spngs
Granite Peaks
Mt. Lowe
Roaring River
Power Plant
Oak Grove Fork
Slump Country
Andesite?
Sharp Ridge
LEAF FOSSILS
Collawash River
Whale Head
Fish Creek
Fish Cr Mtn
Fish Creek Divide
(Possible location of old Mt. Clackamas)
East Mtn.
ESTACADA
North Fork
River
South Fork
Clackamas
Pliocene
Rhododendron and Cascan
Miocene
Columbia R. basalt Interbedded seds
Miocene or Oligocene
Eagle Creek
Eocene?
Bull Creek
ELEVATION OF NE-E WALL (diagrammatic)
ESTACADA
North Fork
Old Baldy
Squaw Mtn
Roaring R.
Power Plant
Bull Cr.
Mt. Mitchell
Oak Grove Fork
Oak Grove Butte
Upper Clackamas
Peavine Mtn
LEAF FOSSILS
Granite Pks
Mt. Lowe
-5000 ft
-4000
-3000
-2000
-1000
CLACKAMAS RIVER
COLLAWASH R.

The principal interest at Three Lynx is the power plant of the Portland General Electric with its steep penstock carrying water from a reservoir located up the Oak Grove Fork. The hill down which the penstock comes is agglomerate capped by basalt.

Soon we crossed, without stopping, a weak marshy stream called Bull Creek. This is of interest because, as some of us discovered later, it is at the foot of this stream that the Clackamas River has cut all the way through the Eagle Creek formation to some highly folded sediments which lie beneath, discovered by Barnes and Butler (1930) and which Sheets (1932) has called the Bull Creek formation. It is probably Eocene in age and comparable to the Clarno formation of central Oregon. It would seem that here the Clackamas River has cut entirely through the three layers of the Cascade layer cake to the pan that lies beneath.

But we were hell-bent for fossil hunting, so we hastened on and, crossing the Clackamas at its fork with the Collawash River, took the forest access road up the steep ridge that lies between the two rivers. The ridge is knife-edged due to the slumping away of the Eagle Creek beds on the two sides. Our destination was a recent earth slide on the Collowash side of the ridge at about 3,000 feet elevation. Here a bed of fossil leaves embedded in sandstones and tuffs was recently discovered. After hastily eating our lunches most of the party made the laborious descent through the forest and soon were pounding and chiseling. Many smaller specimens and a few larger display slabs were obtained. The leaves will need to be studied by specialists, but even we amateurs recognized (or think we did) dawn redwood, swamp cypress, willows, oaks, elms, and maples.

How has it come about that these Eagle Creek fossils are 3,000 feet up in the mountains? Meredith Sheets (1932) has doubtless supplied the answer. Looking westward from the fossil locality across the Collawash to the ridge on the other side one sees a section of an ancient volcano, which he named Mount Clackamas. The agglomerates and lavas which formed its flank rise from stream level at the north to 4,000 feet at the south on the flanks of East Mountain. Above the agglomerate at the north can be seen cliffs of Columbia River basalt; but these pinch out on the slope of Fish Creek Mountain straight across from our vantage point where the flows lapped the base of the ancient mountain. One can practically see the place by noting the top of the slump topography. In his imagination one can picture old Mount Clackamas standing there in the direction of East Mountain like an Oligocene Mount Hood or Mount Rainier. Our fossils may well have been deposited on some Reflection Lake or Lost Lake on its ancient shoulder.

Let us summarize: Up through the distorted and eroded surface of ancient Oligocene hills (very likely composed of Eocene, i.e., Bull Creek or Clarno sediments) there erupted Oligocene and early Miocene volcanoes of which Mount Clackamas was one, as were also the Eagle Creek volcanoes north of Columbia River Gorge. Their ashes blew eastward to form John Day beds. Forests grew around their flanks, mostly broad-leaved forests, but with dawn redwood present, samples of whose leaves it was our privilege to carry home. Then in middle Miocene times came the great basaltic floods lapping the sides of the volcanoes and burying their forests, but never covering their tops. Finally, after a very little if any distortion and erosion in the Clackamas area, came the Rhododendron volcanoes of Pliocene times which spread their agglomerates and lavas far and wide to form the present hills and buttes of the Cascade range. Their original surface largely remains to form the uplands, but the glaciers and streams of

Pleistocene and Recent days have cut valleys and gorges, thus producing a more mature topography in this the western part of the Cascades.

References

Barnes, Farrell F., and Butler, John W., Jr.
1930 The structure and stratigraphy of the Columbia River Gorge and Cascade Mountains in the vicinity of Mount Hood: Master's Thesis, Univ. of Oregon.

Sheets, Meredith
1932 Contribution to the geology of the Cascade Mountains in the vicinity of Mount Hood. Master's Thesis, Univ. of Oregon.

Treasher, Ray C.
1942 Geologic map of the Portland area: Oregon Dept. Geology and Min. Industries.

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SCAPPOOSE LIMONITE

James M. Orr, president of the Orr Engineering and Chemical Company, brought an interesting topic to the Society at our July 11 meeting. He described the industrial utilization of iron oxides with special emphasis on his mine and plant at Scappoose. Some of the uses of the common red and brown dirts were described as follows:

1. Oxide pigments, such as ochers, siennas, umbers, and magnetites are all used to color paints. They are used naturally or after partial or full burning to bring out the colors needed.

2. Oxide fillers are used to supply body in ceramics, cements, rubber compounds, and roofing felts.

3. Chemical oxides can act as purifiers and catalysts in chemical operations.

4. Miscellaneous uses include sponge-iron manufacture, thermite reactions, metal cutting, cattle and poultry feed additives, and medicinal.

Mr. Orr's plant at Scappoose is used principally to treat the limonite so that it will work as a chemical purifier to remove the sulphur at the plant of the Portland Gas and Coke Company. The oxide is "activated" by grinding in an alkali solution, treating with chemicals, calcining, regrinding, and classifying.

The samples of material and slides showing mining, activating, and shipping proved to be so interesting that Mr. Orr had to promise a trip to the plant in the near future.

T.C.M.

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NEW FOSSIL LEAF LOCATION IN GRANT COUNTY

Report comes from our eastern Oregon member Gail DeWitt of a new find by Phillip Dale of John Day, Oregon, of fossil leaves from Davis Creek on Dixie Mountain. These are from a Clarno formation according to the opinion of Dr. Ralph W. Chaney who hopes to make a visit to the location soon.

Gail also reports a fossil leaf find at a locality on the Prairie City side of Dixie Mountain. The last named have not yet been identified.

YOUR LIBRARY AND MINE

Last Library Fest night, August 13, was a busy one. About 18 members attended. After a couple of hours reading and chatting about geological subjects, Bruce Schminky took over for the 15-minute surprise. He showed us slides which we were asked to interpret in terms of erosion, etc. Then Mr. Wilson showed us a few specimens from National Glacier Park. We appreciate the efforts of these members who help make library nights interesting and we do need volunteers for future evenings.

A thank you to Rudolph Erickson who had made available to the library a typed copy of a paper entitled The Stratigraphy and Paleontology of the Triassic of the Suplee Region of Central Oregon, by E. T. Schenck, 1931. Both readable and informative. And thank you, Mrs. Nellie Lange for donating the very fine book Geology - Principles and Processes, by Emmons and others. This book is now cataloged and ready to charge out. Another thank you to Mr. Norris B. Stone for (1) The Story of the Minerals, by Herbert P. Whitlock, 1946. Handbook No. 12 of the American Museum of Natural History. This writing has an elementary approach to the subject of geology and is profusely illustrated. (2) Mining Textbooklet No. 1 - Geology and Mineralogy - Canadian Legion Educational Services, Ottawa, 1945. This book should have appeal for the novice in geology. It uses, in part, the question and answer technique.

Wednesday, September 24, and Tuesday, October 7, will be your next library nights. Come and join us, won't you?

Yours in the interest of
YOUR LIBRARY AND MINE,

May R. Bushby

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HAVE YOU HEARD?

That we have received from our long-lost past president, Dr. John Eliot Allen, a most interesting article "A Mexican Trip in Your Own Backyard" which will appear in an early number of News Letter . . . . .Someone at the picnic asked: "When will the Doctor Arthur Jones family return from Europe?" We turned around and there they were - lunch basket and all. A fast trip they said, seldom sleeping in the same bed twice. . . . .Glad also we were to have Dr. and Mrs. E. T. Hodge present. He reports that the section of Africa where he has been much resembles eastern Oregon in climate. . . . .Lucky thing that Ray Golden didn't have his fire truck parked close to the stage at the performance of the sabotage skit or he would have dived in and pulled all those cars out of the mud and ruined everything. . . . .Added to the Booth collection of fluorescent minerals at Museum of Science and Industry are the Hughes (our Miss Hughes) collection of lovely old goblets and the Corbett gun and pistol collection. . . . . May Bushby's Library nights are growing. She reports eighteen present at the last one and that on a hot night, too. . . . .That March 13 has been set as the date of our Annual Banquet. Keep it in mind.

J.E.

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SALEM FIELD TRIP - July 13, 1952

This was a joint trip of the Salem Geological Society and the Geological Society of the Oregon Country of Portland. Leo Simon and R. Erickson acted for the Portland group, and Ralph DaMetz for the Salem Society. Professor Clark of Willamette University, a member of the Salem group, was leader.

Due to not properly noting the difference in time between the two cities, some of the Portland members arrived an hour before the time actually set for the start. While waiting, this contingent toured the Willamette campus and capitol grounds observing the large variety of trees and shrubs, under general explanation of Leo Simon, a GSOC member. When the late-comers from Portland and Salem appeared, the caravan set sail.

First port of call was Finzer, a few miles south of Salem on the Oregon Electric Railway. In a cut along the track is an outcropping of Oligocene rock known as the Illahee formation. In this rock are found many specimens of gastropod and pelecypod. Some very good samples were obtained on this occasion, also a few specimens of Brittle Star, a small specie of starfish. Professor Clark gave a short talk outlining the general geology of the immediate region.

The high-water level in the Willamette River prevented search of two rock ledges along the low river bank, where other marine fossils are prevalent. However, the noontime heat becoming very noticeable, the party was glad to proceed to the next stop.

This was across the Willamette River to the town of Independence, thence westward to the outskirts of Monmouth to reach Highway 99W and south along this highway to Helmick State Park, a pleasant place to picnic with its tall fir, maple, and cottonwood trees, and green grass and shrubs. Coffee with cream and sugar was provided by the Salem Society, with the welcome addition of ice-cold lemonade and iced watermelon.

Part of the group visited a road cut on the old highway, while others rested in the shade. Fossils, not being plentiful, the detail soon rejoined the main group and proceeded to Coffin Butte. Not, however, before the combined man-power of the party and ingenuity of Ray Golden had freed one of the automobiles from off a stump where it had unsuccessfully tried to indulge in a game of leap frog.

Coffin Butte is noted for its fine specimens of zeolites - exposed when rock was being quarried there for road purposes. However, many rock hounds have visited the area and little success was met with on this trip. Professor Clark gave a short talk defining the term zeolite as applied to numerous mineral crystals formed in cavities of lava rock. He also explained the reason for the pillowlike appearance of the basalt rock of which the butte is formed.

The day now being well advanced the party broke up with the consensus that the enjoyable occasion should be repeated each summer. The writer heartily agrees with this sentiment.

R. W. Ohmart

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ELLEN JAMES ADDRESSES FRIDAY EVENING MEETING
July 25, 1952

On Friday evening, July 25, Miss Ellen James addressed the Geological Society of the Oregon Country on "A New Miocene Invertebrate Fauna from Coos Bay, Oregon."

To those of us who have seen Ellen grow up in the Society from a kid interested in collecting specimens to a Master in Geology, working for the United States Geological Survey on a paleontological assignment in Oregon, it was a memorable occasion. It is not often in these days that a student has the opportunity to describe a new fossil fauna in her master thesis and for Ellen to have this chance must have been thrilling, indeed. (Part of the time I shall refer to Ellen as Miss James because of the dignity of her position and part of the time I shall refer to Miss James as Ellen because we know her so well.)

Miss James told us about the Miocene invertebrates which were dredged from the Coos Bay channel between mile 3.5 and 4.0 measured from the mouth of the bay. The approximate location in the channel was determined by the length of pipe line used by the dredge which in no place exceeded 2,770 feet. The fauna has been assigned to the Middle Miocene by Miss James because of its marked resemblance to the Astoria Miocene. Unless my notes are in error, Ellen said that in comparing the species collected, with the Astoria Miocene, only three pieces differed from the Astoria fauna. Those were a pelecypod genus Pecter, and two new species of gastropod, one of the genus Trophon, and one of the genus Miopleiona.

The specimens shown were in an excellent state of preservation. They came from the trough of the South Slough syncline and do not appear on the shore in outcrop of either limb. Ellen told us that the Miocene material is flanked in the dredge disposal area by the Oligocene Bassendorff formation between miles 4 and 4.5 and by the Pliocene Empire formation between miles 2.0 and 3.5. This is the first exposure of middle Miocene fossils south of Newport, she said. Ellen ended her talk by an interesting description of her experiences in Washington, D.C.

It is not often that so excellent a lecture can be followed by two more lectures in the same evening without an anticlimax, but interest was held by some excellent colored slides taken by Rudolph Erickson on the Decoration Day trip to Eastern Oregon, which he explained as Leo Simon worked the projector. A most interesting chalk talk followed by the founder of our Society, Dr. Hodge, who told us about South Africa, where he had spent a year for the Bethlehem Steel Corporation. The undertone of racial conflict between the English and Dutch and the now great majority of blacks, who have moved in from Central Africa, was of equal interest with the geology of the area. It is unfortunate that Dr. Hodge did not feel that he could give us another entire evening.

A. D. Vance.

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JAMES-TRUMBULL WEDDING TO BE IN SEPTEMBER

The many friends of Miss Ellen James will be interested to learn that plans for her marriage to James V. A. Trumbull of Tulsa, Oklahoma, previously announced for some time next summer, have been moved forward to September 21, 1952. The ceremony will be performed here in Portland at the First Unitarian Church at 3:30 p.m. of that date. Ellen has asked us to extend a most cordial invitation to all members of the Society to be present for the occasion. This is a very special event to the many of us who have watched Ellen "grow up" so to speak with the Geological Society. We will certainly take pleasure in being on hand to wish her and the groom all happiness.

ANNUAL PICNIC -- MT. TABOR PARK -- AUGUST 8, 1952

"Perfect picnicing weather" ushered in our 1952 Annual Picnic at Mt. Tabor Park on the evening of August 8. It was a warm, balmy evening when a goodly number of G.S.O.C. members met for the usual hot "cafeteria style" dinner which proved as usual its great popularity. There was much shuffling of plates and cups and going back for seconds, refills of coffee and finally, a gathering like bees 'round a honey jar for the pies, cakes, and melon at the dessert table.

Following dinner, President Stone called the group together for a long-anticipated event, the unveiling of the bronze plaque which is reported elsewhere in this issue.

Then to "Volcano Theatre" which many had seen for the first time since its being rebuilt, for the usual stunts, singing, etc. The Park Department has done itself proud in remaking this theatre area - built from lava rock of the volcano it is artistic, beautiful, and funtional. We suspect that Mt. Tabor Park foreman, Mr. Sam Allen, who as usual was on hand to see that everything went smoothly, has had something to do with the successful rebuilding of the area. Also, we like to think that we Geesockers may have had a part - at least in suggesting the suitability of the area for entertainment purposes, for we've been presenting our stunts, skits, etc., there for many years.

With President Norris Stone emceeing, a lot of "wishing" started among the audience -- accompanied on the Piano by Miss Mary Davenport. It was revealing to know that apparently many of our GSOC group have been harboring long-suppressed desires for varied accomplishments such as to be a "fossil by the sea," "an ancient oredon," "a little three-toed horse," and others. In addition to Mary and President Stone, Johanna Simon, Ken Phillips, Lon Hancock, Eddie and May Bushby, and a quartet consisting of Gregg Davis, Gene Hampton, John Wheeler, and Dick Walker sang out lustily just what they "wished they wuz."

Emcee Stone next announced the title of the skit - "Sabotage in the Ochocos." He later corrected it to Sabbath in the Ochocos," but after seeing the skit, we think he was right the first time.

Mr. Edward Clark as Pete Huckleberry and Glenna Teeters as his wife, Mehitabel, got their roadway paved, even though it caused Trip Leader Bruce Schminky no end of embarrassment. The long line of female members who lined up er a -- for photographs by Leo Simon, who carelessly let his sign get blown down (wind erosion), were Mrs. Bruce Schminky, Mary Lou Oberson, Mrs. Edward Clark, Estella Connor, Mrs. Toralf Erickson and daughters Judy and Joan, and Aunt Minnie, played by Mr. James Galt in the absence of the original, Leonard M. Buoy.

Mrs. Albert Keen, general chairman, and her committee and R. F. Wilbur, entertainment chairman, are to be congratulated on a very successful and entertaining evening.

J.E.

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SIMON-MILLER MARRIAGE EVENT OF AUGUST 23

Many GSOC friends were among those present when Miss Lotus Simon, daughter of our long-time members and good friends, Mr. and Mrs. Leo Simon, became the bride of Mr. Wilmer J. Miller of Lawton, Oklahoma, on Saturday, August 23, at the Chapel of Reed College.

Following a reception for friends and relatives at the Reed Faculty Lounge, the couple left for a short trip to the Oregon beaches, after which they will return to Wisconsin where Mr. Miller is completing his studies in Immuno Genetics.

BRONZE PLAQUE INSTALLED ON MT. TABOR

Those of us members who attended the annual picnic at Mt. Tabor Park Friday evening, August 8, witnessed with a great deal of pride the fulfillment of a long-felt wish -- the unveiling of a bronze plaque at the crater of Mt. Tabor, a gift of our Society to the people of Portland.

After being called to the area by President Norris Stone, the group heard a short talk by Dr. J. C. Stevens on the geology of the crater and surrounding area. Dr. Stevens then unveiled the plaque which stands at the east end of the picnic area facing the roadway through the park.

Mr. F. W. Libbey, chairman of the inscription committee, had asked for and received various suggestions from members of the Society as to wording of the inscription. After consulting with various geologists and members, the following was decided upon:

> "Through the fiery throat of this volcano exploded glowing cinders which, cooling, formed the ground on which you now stand. Younger than the hundreds of volcanoes which poured out their lavas in the foothills of Mt. Hood, this cinder cone has withstood the ravages of time to become Mt. Tabor. It now stands peacefully in the City of Roses, the only major city in the United States that has a volcano within its borders.
>
> "This tablet was installed by the Geological Society of the Oregon Country August 8, 1952."

President Stone, Dr. Stevens, Mr. Libbey, and others who worked with them toward accomplishment of this installation are to be greatly commended for their efforts. We will feel justifiable pride in the years to come over this plaque at the site of Mt. Tabor's volcano.

J.E.

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WHAT'S NEW IN READING

1. Geology of the Spirit Mountain Quadrangle, Northwestern Oregon, by Ewart M. Baldwin and Albert E. Roberts, has just been published by the U.S. Geological Survey in cooperation with the Oregon State Department of Geology and Mineral Industries as one of the Oil and Gas Investigations series. The report is in the form of a geologic map and descriptive text printed on one large sheet. Included on the sheet are cross sections, a stratigraphic correlation chart, and lists of fossils collected. Spirit Mountain quadrangle covers an area of Tertiary sedimentary and volcanic rocks of the Coast Range and lies directly north of the Valsetz quadrangle visited on the August 10 field trip. State Highway 18 to the coast crosses the southern part of the quadrangle.

The map (designated as Map OM 129) may be purchased for 60 cents from the Distribution Section, Geological Survey, Denver Federal Center, Denver, Colorado.

2. Pacific Coast Earthquakes, by Perry Byerly, presented as a Condon Lecture in 1951, has been published and may be obtained for 75 cents from the University of Oregon Press, Eugene, Oregon. The publication has 32 pages describing the distribution, cause, and effects of earthquakes in this area and the instruments used to locate and measure them. It is all very interestingly written and well illustrated. At the end of the bulletin, Professor Byerly includes a list of earthquakes felt in Oregon between 1866 and 1949. Believe it or not, there have been more than a hundred.

M.L.S.

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A "THANK YOU"

Your editor wishes to thank the many GSOC friends who so generously and loyally attended the premiere production of her play "A Mighty Fortress" at Reed College this past month. Your support of and attendance at the performance is a gesture that she will not soon forget. Nor will she forget, either, the beautiful roses that someone - she believes it was May Bushby - handed to her at the beginning of the reception following the performance and this is a "Thank you, too" to all "Geesocker friends" who participated. President Norris Stone's support in making announcements and Mrs. Edward Clark's tireless efforts also are most deeply appreciated. It was a "highlight" evening and your editor is proud and happy indeed to have so many GSOC friends present to share it with her.

J.E.

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LUNCHEON NOTES - THURSDAY, JULY 31, 1952

Included in today's attendance at the Y.M.C.A. luncheon room, besides Pres. Stone, were: Dr. Ruth Hopson, Miss Hughes, Mrs. Keene, Mrs. Bushby, Miss Henley, and Messrs. Keene, Vance, Kelham, Erickson, Elder, Wilbur, Stevens, Libbey, Matthews, Shirk, Baldwin, Simon, and Walker. . . .Dick Walker, one of our newer junior members, showed an excellent specimen of acila Nehalemensis and two crinoids from the quarry at the west end of the Sunset tunnel on the Sunset Highway. A Jurassic specimen from Seneca shown by Mrs. Bushby was tentatively identified as a crinoid. Dr. Hopson's 10-power glass went around the table with one of the specimens and then disappeared. Who had it? All looked guilty. Finally the lady looked in her handbag - and there it was! (She blushes becomingly.) . . .Mr. Vance reported Mrs. Vance as much improved and told of her appreciation of the cheery "get well" card signed by the members of the luncheon group. Equal appreciation was expressed by Mr. Wilbur for a similar card sent to his mother, now home from the hospital. . . .Mr. Erickson reported that Dr. Packard to whom, at the request of Ray Golden, he had sent a bone for classification, could not identify it, but thought that it might be a part of the forearm of an ungulate half the size of a horse. . . .It was announced that permission has been received from the City Council, through the efforts of Dr. J. C. Stevens, to install the descriptive plaque at Mt. Tabor Park. It is hoped the dedication can take place on the evening of our annual picnic, August 8. Dr. Stevens passed around a sketch of the pedestal on which the plaque will be installed. . . .The June 1952 issue of the Bulletin of the Geological Society of America has been received by Librarian Mrs. Bushby. Another contribution was received today from President Stone, Diamond Orientation in Diamond Bits, issued by the U.S. Department of the Interior. . . .Mr. Stanley Shirk made a plea for assistance from our group in helping to put on the coming Science Exposition to be held March 16, 1953, at Lincoln High School Gymnasium. The purpose of the exposition, which is co-sponsored by the Oregonian and the Oregon Museum of Science and Industry, is to encourage interest in science and related fields among the young people. The youngsters will be encouraged to build exhibits of various science subjects. Exhibitions of this type have been held in the East but are new in the Northwest.

A.H.

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JOAN VINCENT BRIDE OF JOHN ALAN PIPER

And to our Romance Department comes news of the recent marriage of Miss Joan Marion Vincent, daughter of Mr. and Mrs. Earl F. Vincent of Gresham, to John Alan Piper, son of past GSOC President and Mrs. Arthur M. Piper. We all join in wishing this couple much happiness. They will be at home after August 1 in San Diego where Mr. Piper is serving with the U.S. Navy.

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GEOLOGICAL NEWS LETTER

OFFICIAL PUBLICATION OF THE

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnoma and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - OCTOBER 1952

Thursday Oct. 2 — Luncheon Meeting - Room 305 YMCA Cafeteria

Tuesday Oct. 7 — Library Night - "Your Library and Mine"
Residence of Mr. and Mrs. Edward Bushby
1202 S.W. Cardinell Drive

Thursday Oct. 9 — Luncheon Meeting - Room 305 YMCA Cafeteria

Friday Oct.10 — Regular Friday night meeting Library Hall 8:00 p.m.
Mr. David H. Beetem of the Alcoa Aluminum Corporation will show a motion picture and talk on "Bauxite to Aluminum."

Sunday Oct.12 — Our monthly Field Trip - See below for details

Thursday Oct. 16 — Luncheon Meeting - Room 305 YMCA Cafeteria

Tuesday Oct. 21 — This "Library night" will be at the residence of Dr. and Mrs. Arthur Jones, 330 S.W. Heather Lane, (BEacon 3955), at 7:00 p.m. or later if convenient. Specimens gathered on recent European trip will be displayed and Dr. Jones will talk further anent their most interesting trip, supplementing his talk of September 12 at Library Hall which was shortened by unforseen complications. (Note: May Bushby says if you have books to return, bring them along; she will see they reach their proper shelf in library.)

Thursday Oct. 23 — Luncheon Meeting - Room 305 YMCA Cafeteria

Friday Oct.24 — Regular Friday night meeting Library Hall 8:00 p.m.
Dr. J. C. Stevens will explain a new theory on the glacial periods with slides and diagrams.

FIELD TRIP FOR OCTOBER

Sunday Oct.12 — This will be a boat trip up the Willamette River. We will leave K & R Marine Service Moorage at the foot of North Williams Avenue (take Marine Drive to Bridgton Road) at 9:00 a.m. Sunday morning, October 12. Continue from there in launches up the Columbia to mouth of Willamette, then upriver to Oregon City and return. Bring your lunch and plenty of warm clothing, also raincoats if weather is threatening. The charge by boat company providing the launches is $3.00 per person. Trip will take six hours. For information call Leo Simon BE 0300 or EM 0549.

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NEW MEMBERS

Mr. and Mrs. Carl Neuburger
442 Kellogg Park Zone 2
Portland, Oregon

Mr. and Mrs. T. Herbert Laurence
1808 S. E. 35th Place EA 8294
Portland, Oregon

Mr. and Mrs. John P. Dwyer
398 N.E. Murray, BV 4-3647
Beaverton, Oregon or
Rm 103 U.S. Customs House,
Portland, AT 6171 (Ext.236)

Mr. Neuburger is a machinist specialist in minerals and ores; and Mr. Laurence a metallurgist with Oregon Brass Foundry. Mr. Dwyer was sponsored by GSOC member Mr. R. F. Wilbur.

CHANGE OF ADDRESS

Reynolds W. Ohmart 783 N. Capital Street Salem, Oregon

CHANGE OF NAME AND ADDRESS

Lotus Simon to Mrs. Wilmer J. Miller, 1821 University Avenue, Madison, Wis.

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AUDUBON SOREEN TOURS

Once again the Oregon Museum of Science and Industry and the Oregon Audubon Society present the Audubon Screen Tours for your enjoyment. The superb color motion pictures of the wildlife of our country encourage all who see them to a greater interest, appreciation, and enjoyment of the wildlife of our natural environment. We urge you to support this worthwhile program - it's yours - a program for all folk who love the great out-of-doors.

Audubon Screen Tours

Date	Title	Narrator
November 10, 1952	The Four Corners	Fran William Hall
December 8, 1952	Bonaventure Diary	Robert C. Hermes
February 16, 1953	Animals Unaware	Howard Cleaves
March 16, 1953	Santa Lucia Sea Cliffs	Allan D. Cruickshank
May 6, 1953	Oddities in Nature	Walter H. Shackleton

Admission: Adults - $0.60 Children - Free
Museum members - Federal tax only
Season tickets - $2.50

Arrangement has been made for supplementary talks to accompany screen tours on Conservation of Oregon's Natural Resources. The first one will be on the evening of November 10, when Mr. Tom McAllister, Volunteer curator of Ornithology and Mammalogy with the Oregon State Game Commission, will talk on "Conservation of Oregon's Big Game Animals."

All programs are held in the Benson Polytechnic High School Auditorium, 546 N.E. 12th Avenue, at 8:00 p.m.

S.S.

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A MEXICAN TRIP IN YOUR OWN BACKYARD

By

John Eliot Allen

Geologists from all over the world have been visiting Mexico to observe the didoes of North America's most accessible active volcano, Paricutin. They consider it an important event when a new volcano appears, as this one did in 1942, because by observing its activity they can apply the law of uniformitarianism to the study of the ancient cinder cones and lava flows which cover numerous areas in our southwestern and western states.

But why go to Mexico? Those of us who live in Oregon and Idaho or Arizona and New Mexico have in our own backyard sufficient evidence to reconstruct, in our own minds at least, a vivid picture of the cinder falls, the lava flows, and all the other minor features which accompany a volcanic eruption of this type.

Oregonians, for instance, can go a few miles south of Bend, in central Oregon, to observe a flow and cinder cone which must have been built only a few hundred years ago. A few miles to the west of Bend in the McKenzie Pass area a similar recent outpouring covers many square miles. Those of us who live in Idaho can go to the Craters of the Moon and see all the effects produced by volcanoes which only appeared a short while ago, geologically speaking. We in New Mexico can go to the Carrizozo flow a few miles east of the center of the state, or to the McCarteys flow on Highway 66 near Grants.

The question is how can we bring these dead masses of black basalt back to life, at least in our own minds? In order to do so we must spend a little time examining the flow both in the overall picture and in detail before we are able to assimilate all the numerous features which tell us the story.

Let us take the Carrizozo flow as an example of this procedure, and let us look down upon it as from a great height. Fortunately we can do this because an air photo taken from one of the White Sands rockets shows us how it looks from 60 miles in the air.* We can see how it spreads out to width of 3 or 4 miles from the base of low cinder cones lying 11 miles north of Carrizozo. Thence it extends southwest down the west side of the Tularosa Valley. West of Carrizozo it narrows abruptly and for 10 miles in the "narrows" is about 1 mile in width. Farther south in the Tularosa basin west of Three Rivers, the final 20 miles of the flow is nearly 5 miles wide and consists of at least 7 distinct flow units. At several places along the course of the flow, outcrops of resistant Dakota sandstone which once formed low cuestas on the east side of the valley have been totally surrounded by the lava to form islands known as "Kipukas." The flow has traveled a distance of 44 miles and if we take a planimeter and measure the total area on a map it turns out to be about 127 square miles.

How much lava actually flowed out on the surface of the earth in this eruption? Well, we can compute that, too. A topographic map of the valley shows us that the east side of the valley has a certain slope and the west side a somewhat steeper slope. If we draw several cross sections across the area covered by the flow we can see that the flow probably has a maximum depth of nearly 150 feet in the bottom of the old filled valley. Averaging a number of triangular cross sections of the valley filled by the flow we come to a figure of about 70 feet in depth for the main part of the flow and 25 feet in depth for the southern portion of the flow. Our maximum thickness in the bottom of the valley is checked by an actual deep pit in the lava on the valley axis, a pit with a bottom 120 feet below the lava surface,

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*See bibliography, No. 3.

lying west of Carrizozo. By drawing a number of such cross sections and calculating the actual volume of the flow we come surprisingly close to one cubic mile of lava.

Now let us walk across the surface of the flow (more or less ignoring the horrible stories told of giant rattlesnakes which inhabit the caves in the flow) and see what we can see. The most obvious and perhaps most characteristic features are the great flat lava slabs, some tilted at alarming angles, all having a ropy, crumpled surface texture. This substance is known as "pahoehoe" and represents the cooled crust of lava which was relatively liquid and flowed rather rapidly. This we had already guessed from the extreme length of the flow. We next notice great ridges cutting across the flow in which these slabs of pahoehoe lava have been folded up and crumpled and tilted, cracking open at the apex of the folds to form crevices 10 and 15 and 20 feet deep. These are known as "pressure ridges" and indicate that while the crust of the flow had cooled to considerable thickness, the lava underneath was still liquid. The crust, sliding down grade on this liquid substratum, crumpled and folded up. We also can find corroborative evidence of this by looking in the bottoms of these great cracks and finding little bulbs of viscous lava known as "squeeze ups" where the still liquid substratum came up through the crack.

Another feature we observe as we walk across the surface of flat lava are the sudden dropoffs into great round holes 20 or 30 feet deep and varying from a few to a hundred feet across, or elongated ditches filled with broken fragments of the crust. Upon examining these closely, we may find a cavern opening out at one side of the depression or end of the trench and we realize that these really are the collapsed roofs of lava conduits from which the liquid material had in the past drained out leaving little support for the crust.

We are now approaching the crater. It is only 40 or 50 feet high, and made up of coarse cinders with an occasional rounded "bomb." It rests on a very low shieldlike dome consisting of lava which flowed out from the base of the cone. The typical double convex profile of the cinder cone, together with the fact that the highest portion of the crater rim is on the northeast, tells us that at the time the cinders were being blown out, the winds were from the southwest much as they are today. The lavas did not come out from the crater itself. They broke out through the weak wall of cinders at the crater base. And on the Carrizozo flow we have an additional feature of interest; two small, partially formed cinder cones, in addition to the main cone - one lying a few hundred yards to the northwest, the other a few hundred feet northeast of the main crater.

The black basalt making up the flow is fresh and bright, even on thin edges. The plants which grow occasionally on its surface sprout not in decomposed weathered lava but in dust which has been blown in and deposited in the cracks and crevices of the flow itself. Consequently we suspect that the flow is of recent origin, perhaps only a few hundred years old. As we look around the edge of the flow we see that there are still closed depressions at the mouths of small valleys which were dammed by the flows. These depressions have not yet been filled up with sediment brought down these valleys. Continuing around the edge of the flow, we look for trees overwhelmed by the edge of the flow and burned, because we know that if we can find a small piece of charcoal we can by the use of the newly developed carbon 14 techniques date the approximate time when that tree was killed and burned.

Are we ready now to paint our picture? A prehistoric Mescallero Apache might have seen it, just as the modern Mexican farmer saw Paricutin first appear! A slight

puff of smoke appears in the upper Tularosa plains, followed by increasing rumbling and shaking of the ground. As night comes on, a brilliant glow appears from this one spot, and a fountain of fire rises, 50, 100, 200 feet from the central opening. By dawn a little cinder cone some 50 or 100 feet high has been built up; within a week or so this cone has risen several hundred feet. Suddenly one wall of the crater begins to steam and split apart, and a tongue of lava appears at the base of the cone. This highly gas-charged lava steams bluish smoke and pours out and down the valley as fast as a man can walk. As it advances, its edges cool and crack and crumble, and the hardened surface crust is rolled over and under the front like the caterpillar tread of a tractor. This tongue of lava follows down the arroyo at the bottom of the valley and fills it to overflowing, probably not going very far before it cools and solidifies. However, another tongue of lava follows down one side of the first and spreads out more widely over the flat valley bottom. As the weeks go on the volume of the flows increases. The cinder cone itself in this case is partly buried by the flows; unlike Paricutin, most of the lava is liquid, most of the activity is restricted to pouring out of lavas rather than to building up a large cinder cone. Hence we probably will not see the great cauliflower-shaped ash clouds that are characteristic of the more highly gas-charged volcanic explosions.

As flow after flow pour down the valley, the lava field contiues to widen. Eventually the racing lava pours down the gorge west of Carrizozo and spreads out on the plain, filling the lowest portion first. Subsequent tongues build out beside the first and build 7 or 8 distinct flow units - each of them about 25 feet thick. All this took maybe five, maybe ten years before the final activity ceased.

Bibliography

1. Allen, J. E., The Carrizozo Malpais, New Mexico.
Geol. Soc. Am., Proceedings, 1952, (in press).

2. Nichols, R., McCarteys Basalt Flow, Valencia County, New Mexico.
Geol. Soc. Am. Bull., vol. 57, no. 11, pp. 1049-1086, 1946.

3. Cover picture, Scientific Monthly, vol. 71, no. 6, Dec. 1950.

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CURATOR OF LOS ANGELES MUSEUM WILL EXCHANGE MATERIAL

An item that may be of interest to those desiring to obtain specimens from California has been handed to us by GSOC member Clara Nelson. She has received a notice from Dr. George P. Kanokoff, curator of the Los Angeles Museum, Los Angeles 7, California, that he would like to exchange complete faunas -- fossils of the John Day country being particularly desired. Anyone having material to exchange should contact Dr. Kanokoff at the above address, and find out what he has to offer.

J.E.

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VALSETZ FIELD TRIP - SUNDAY, AUGUST 10, 1952

Some eighteen cars of GSOC members assembled on Sunday morning at Falls City around ten o'clock, and found Dr. and Mrs. Ewart Baldwin and their two sons waiting --- he being the scheduled trip leader to show us some of the very interesting geological formations in the Valsetz area. Dr. Baldwin's remarks follow:

At Falls City, the rock dips gently to the east. Proceeding toward Valsetz, the road follows the top of a prominent sill. Sediments rest upon the sill and are in turn overlaid by remnants of another sill. The first stop was made at the junction with the Black Rock road. Here we could see the valley of the Little Luckiamute River, the Willamette Valley Lumber Company road, and the top of a prominent sill that composes Laurel Mountain.

We passed Cold Springs and went on to Fanno Ridge where after a short foot climb, we looked far off to the south and westward into the immense Valsetz Basin. This basin is drained to the east by the Luckiamute River which circles Bald Mountain (Monmouth Peak) and heads eastward through Hoskins and Kings Valley by Rock Creek to the south which joins the Siletz and to the west by the south fork of the Siletz River. Valsetz Lake is an artificial lake, like its name --- the first half taken from "Valley" and the last from the "Siletz" Railroad.

The rock in the basin is Tyee sandstone. Erosion of the sandstone has caused undercutting of the sill and it slumps off in blocks thus causing a steep face to retreat. Diamond Peak south of Valsetz is caused by two prominent dikes crossing each other. Fanno Ridge sill is continuous with masses crossing as far north as Saddleback Mountain near Grand Ronde.

West of Valsetz the south fork of the Siletz River enters a gorge carved largely in the Siletz River volcanic series. The river joins the North Fork a few miles down stream and together they cut through the Coast Range. At the falls of the Siletz a short distance west of the mouth of Gravel Creek, large blocks of volcanic breccia have blocked the river, evidently from a landslide, making a natural dam. The State Game Department is constructing a fish ladder at this place.

It was now past "eating" time and Dr. Baldwin led us to a beautiful gravel bar on the Siletz River, just below this dam where we gathered 'round for a most welcome repast. He explained that the Siletz River volcanic series is lower to middle Eocene, the Tyee formation is middle Eocene, and the sills are thought to be uppermost Oligocene. These are immense sills from 750 to 1,000 feet in thickness.

About middle afternoon we broke up for the trip home, Dr. Baldwin and family returning to Eugene, some of us coming by way of Black Rock, the rest the usual route. A most instructive and interesting trip geologically and scenically, and of course, always socially.

E.M.B. and J.E.

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MEETING AND PROGRAM OF FRIDAY, SEPTEMBER 12, 1952

A large turnout greeted Dr. and Mrs. Arthur Jones on their first appearance at our bi-monthly meeting and program since their return from a combined business and pleasure trip to Europe. Cramped for time in which to present the subject, "Doc" gave a most interesting commentary on their trip, illustrated with colored slides. By air, rail, water, and "U-drive" autos they viewed a lot of native life and the complexity of European geology in a short time.

High sea cliffs of intrusive Paleozoic basalt greeted them on their approach to northern Ireland from the airfield at Gander, Newfoundland. Breaks in the clouds over the Scotch coast revealed the pre-Cambrian chains of highlands dotted with lakes dug by Pleistocene ice flows. Farther to the east green fields dotted with piles of mill tailings mark location of the truly Carboniferous coal deposits beneath. Effects of glaciation were prominent between Oslo and Stockholm and the Archean bedrock of eastern Sweden showed in the eroded hillsides.

Back into Norway by rail a view was had of one of the greatest "thrust-zones" of the world. Paleozoic metamorphics have been pushed eastward across older rocks. On to Denmark by water the rolling countryside was found to be composed of soil largely of weathered Mesozoic and Tertiary sediments. Traversing the coast of Holland they encountered in northern Belgium and France the same Cretaceous chalky formations noted later in the cliffs of Dover as they crossed to England.

Many of the Rhineland castles were built on volcanic "stumps" overlooking the river. The Bavarian Alps were found to be mostly of limestone overthrusts extending from the Rhine to the Danube, including Triassic, Jurassic, and Cretaceous sediments mostly of massive type. Lake Garda was found to be in a deep glacial valley of the Italian Alps and the Po Valley of deep alluvium from the mountains to the north and west. The trip north was by way of Mt. Cenis Pass, through Switzerland, France, the Scotch Highlands and finally by way of Wales to the mysterious blue limestone structure of Stonehenge near Salisbury, England.

It is hoped that further opportunity will be afforded of seeing the interesting souvenirs of this trip supplementing the slides.

R.F.W.

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JAMES-TRUMBULL WEDDING EVENT OF SEPTEMBER

Many of us were happily present on Sunday, September 21, when Miss Ellen James (our own "Ellen"), daughter of GSOC member Mrs. Mildred James, became the bride of James Trumbull of Stonington, Connecticut, at the First Unitarian Church, Dr. Wm. G. Elliott officiating.

The young couple left immediately following the ceremony for a trip beginning with the Oregon beaches and ending in Tulsa, Oklahoma. Ellen and Jim are both members of "our" profession, being presently with the U.S. Geological Survey. Ellen will return to her work in Washington in October, and Jim will join her there upon completion of his assignment in Oklahoma. We certainly wish them in generous amount all of the many good things that life has to offer.

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HAVE YOU HEARD?

Of the pungent punster who put the proposition: When two geologists marry, is the result a "welded tuff?" . . .Of the most exciting "bone" find by Dick Walker and the Davenports "somewhere in eastern Oregon?" . . .Don't leave any favorite books around; you may find them in GSOC Library as our Librarian has such taking ways! . . .That President Stone's letter on invitation to our guests is so good it makes us want to join all over again. . .That Mary Davenport has been real help to Librarian May Bushby this summer both as junior hostess and helping catalog. . .That we are "doubly proud" of our two brides, Lotus Simon Miller and Ellen James Trumbull. They formed a friendship way back in high school, each followed her bent in science, Lotus in biology and Ellen in geology and then carried the analogy still further by marrying within a few weeks of each other, men in scientific professions. . .Of the new leaf find on Fish Creek (Clackamas area) to be explored as soon as weather permits entering restricted area by explorers Stanley and Liv....er a'excuse us, Erickson and Gilchrist. . . That Dr. John Buwalda can return and talk to our organization any time he wishes and we'll miss our dinner to hear him; he has much of interest to say as those at Luncheon Meeting August 18 can attest. . .Circle March 13 as date for Annual Banquet.

J.E.

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LIBRARY FEST AT THE BUSHBY'S
INTERESTING MINING EXPERIENCE

It is hard to believe that as many as a dozen GSOC members could sit quietly and read but we did -- for an hour at least -- at the Library Browsing Fest at the Bushby residence Wednesday evening September 24. Later came the "surprise" when May and Ed unveiled a lighted display cabinet containing a collection of beautiful and interesting specimens collected by them on their recent trip to the mining areas of Canada. Along with the specimens came a running account of their trip. This mining section that takes in Trail, Nelson, B.C., and other points, apparently is a veritable beehive of activity -- ghost towns revived, old dumps reworked, and many new and rewarding developments.

Following Ed Bushby's interesting talk (he had us all mining mentally to the point where we fully expected him to declare a dividend on our non-existent stock) refreshments were served by the hostesses of the evening, Mrs. Bruce Schminky and Mrs. Albert Keen.

These library nights are interesting and stimulating affairs. The next date - Tuesday, October 7, at the Bushby's, then Tuesday, October 21, at the Dr. Arthur Jones' residence (see calendar for details).

J.E.

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A THANKYOU TO AL KEEN

Hats off to our new chairman of Housing Committee, Mr. Al Keen, for arranging such an ideal place for luncheon meetings, Room 305 YMCA Cafeteria. The food is excellent, the location convenient, and the surroundings most congenial. And if you don't believe it, we suggest that you come some Thursday and find out. Room 305 YMCA.

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CRATER LAKE

Before Mazama spewed her molten fire
Across her neighbor's face, with angry quip;
Before her vengeful spirit petrified
Her enemies aboard the Phantom Ship . . .
I think I sailed some Lake of Indigo
Below the surface of that Long Ago.

I seem to feel a kinship with it all --
The passengers and crew, the skeleton,
Solidified just where he leaped and fell;
The kneeling guard who aims a rigid gun.
Familiar objects, these; familiar shore;
I wonder . . . did I pass this way before?

Jean Stephen Johnston.

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LUNCHEON NOTES

August 21, 1952

The nineteen people present at the YMCA dining room on August 21 were: R. L. Baldwin, E. D. Bushby, May R. Bushby, Mr. Davis, G. V. Elder, Jane Erickson, Rudolph Erickson, Rose Jennings, Mrs. A. C. Jones, Albert Keen, E. A. Kelham, Clarence Phillips, H. B. Schminky, Leo Simon, Lotus Simon, Wilmer J. Miller, O. E. Stanley, N. B. Stone, and Richard Walker. . .A book about fossils recently given to the library by Mrs. Nellie V. Lange, was brought by Librarian May Bushby for exhibition. Mrs. Bushby reported that with the assistance of Mary Davenport she expects to have the library ready for open house on Wednesday, Sept. 24, and Tuesday, Oct. 7. . .Rudolph L. Erickson had a typed copy of "Stratigraphy and Paleontology of the Triassic of the Suplee Region of Central Oregon" by E.T.Schenck. . Mr. Schminky called attention to an article in Rocks and Minerals Magazine entitled "A Brief Guide to the Geology of the Olympic National Park" by Wilbert T. Danner. . .Rudolph Erickson said that he and Reynolds Ohmart had made a trip to fossil leaf deposits at the Sweet Home and Bilyeu Creek sites with Dr. Chaney and that they had found fossilized logs, and standing stumps in the Bilyeu Creek bed. He said also that excellent leaves were found farther up the creek on the south bank. . .President Stone called attention to the coming exhibit of Miss Hughes' collection of glassware at St. Stephens' Cathedral at 1432 S.W. 13th Avenue on September 6 and 7. . .Mrs. A.C.Jones had some rare shells and specimens of sand from Europe. She also brought for inspection the following books: "The Earth's Crest," "Ancient Monuments of North Wales," "Outline of Historic Geology," "Field Archaeology; Some Notes for Beginners" (issued by the Ordnance Survey), "War and Archaeology in Britain" (issued by the Ministry of Works), "The Observer's Book of British Geology," "A Guide to the Geological Column Exhibited in the Museum of Practical Geology," "Man the Toolmaker," "British Regional Geology - The Welsh Borderland," "Beauty in Britain," "Prehistoric Britain," "A Camera in the Hills," and "Birds in London." . . .Mr. Erickson had found that there are in the library of the State Department of Geology and Mineral Industries a number of theses on the geology of various locations in the Oregon Country which would be valuable to members of GSOC. This started a discussion of the best and cheapest methods of getting this information reprinted for the use of our members and for sale to other interested geologists. Mr. Erickson was appointed chairman of a committee to investigate any report.

O.E.S.

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LUNCHEON NOTES (cont.)

August 28, 1952

Present were: R. L. Baldwin, presiding, May Bushby, Mary Davenport, Rudolph Erickson, Albert Keen, F. W. Libbey, Clarence Phillips, H. B. Schminky, N.W.Sipple, Leo Simon, Orrin Stanley, A.D.Vance, and Richard Walker. . .Richard had been on a trip with the Davenports and brought for inspection a fossil leg bone, what he hopes is a plume agate, and a bit of fossil coral from the Suplee region. . . Mr. Libbey announced for Tom Matthews that Dr. A. C. Jones will show European slides and talk about the Jones family's summer in Europe. . .A sample of cobalt ore from the Standard Mine near Prairie City in Grant County was shown by Mr.Libbey . . .Mr. Simon said that Dr. and Mrs. Hodge are planning a trip to Europe and Africa.

O.E.S.

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September 4, 1952

Those present in room 305 YMCA Building were Miss Ada Henley and Messrs. Baldwin, Beck, Brogan, Elder, Erickson, Keen, Libbey, Matthews, Schminky, Shirk, Stanley, Stone (presiding), Vance, and Wilbur. . .Rudolph Erickson told of having visited a fossil leaf location about 36½ miles southeast of Estacada in a typically Eagle Creek formation. He went with Dr. Chaney. The site is on the divide between the Clackamas and Collawash rivers. . .Dr. Beck spoke briefly about finds of fossil elephant bones and metasequoia leaves. He had a ring set with a piece of dinosaur bone from the Dinosaur National Monument in Utah. . .Phil Brogan was asked by Pres. Stone what a "geologist-newspaper man" does on vacation. He replied by telling of collecting fossils furing his recent travels. . .R. L. Baldwin called attention to an article in Colliers magazine on "Canada Today," and Ada Henley read extracts from an article in Science Monthly about a fossil starfish and another predicting a warmer climate after 25 or 50 years. . .President Stone said that we will soon be furnished with a complete list of books in the GSOC library. He also said that Mr. Vance is chairman of a Committee that is preparing a list of geological works recommended for beginners in the study.

O.E.S.

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September 11, 1952

The group met in room 305, YMCA Building. Those attending were Mrs. and Ellen James, Miss Hughes, Mrs. Stone, and Messrs. Elder, Erickson, Keen, Kelham, Matthews, Schminky, Simon, Stanley, and Stone. Mr. Elder had as guests John M. West, geologist, and Fred W. Rodolf, engineer, both from the Corps of Engineers. . .Stanley showed a specimen, of unknown origin, for identification. Those who stuck their necks out, called it furnace slag. . .Tom Matthews was drawn into a discussion as to whether a mineral was more valuable because it fluoresced. He stated that this had no bearing on ore value, nor did it mean that an ore body that contained fluorescent minerals would be of commercial value. This is just another aid in prospecting. Its big value lies in making it possible to sort ores in a mine by hand picking under black lights. . .Ellen James said that she found several horizons or life zones in the area between Yaquina Head and Otter Crest. She will not know if she discovered any new fossils until all of her specimens have been classified. . . Leo Simon told of their recent trip arount Mt. Rainier, into the Lake Chelan country and across some of the northern passes in the Cascade Mountains of Washington.

H.B.S.

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"How puny and meagre is the utmost power man can put forth, even by the aid of all his mechanical appliances, when compared with the primal earth forces!"

John Burroughs in
Time and Change

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GEOLOGICAL NEWS LETTER

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnoma and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR - NOVEMBER 1952

Thursday Nov. 6 — Luncheon meeting - YMCA Cafeteria

Monday Nov.10 — Browsing Fest "Your Library and Mine" at residence of Mr. and Mrs. Edward Bushby, 1202 SW Cardinell Drive.

Thursday Nov. 13 — Luncheon Meeting - YMCA Cafeteria

Friday Nov.14 — Friday night meeting Library Hall - 8:00 o'clock. Mr. Archie Smith of Smith's Fluorescents will give a demonstration of various types of fluorescence with explanations.

Sunday Nov.16 — Field Trip - See details below.

Thursday Nov. 20 — Luncheon meeting - YMCA Cafeteria

Tuesday Nov. 25 — Browsing Fest "Your Library and Mine" at residence of Mr. and Mrs. Edward Bushby, 1202 SW Cardinell Drive.

Thursday Nov. 27 — Thanksgiving - NO LUNCHEON MEETING

Friday Nov.28 — Friday night meeting Library Hall - 8:00 o'clock. Mr. Orrin E. Stanley will show slides of recent trips both geologic and scenic.

Tuesday Dec. 9 — December Browsing Fest "Your Library and Mine" at residence of Mr. and Mrs. Edward Bushby, 1202 SW Cardinell Drive.

FIELD TRIP - SUNDAY, NOVEMBER 16

The November field trip will be "Geologizing in and around Portland-Oregon City way," led by Bruce Schminky. We will leave from the Journal Building on Front Street at ten o'clock a.m. Get there a little early, please. Also, Leo Simon, Trip Chairman, tells us he is not bringing the lunch this time, so better provide your own. Again, Sunday, November 16 - Journal Building on Front Street, leave at ten o'clock! Bring a friend!

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NEW MEMBERS

		Zone	Phone
Covalt, Mr. James	2316 N.E. Tillamook St.	12	TR 7549
Mr. Covalt is a student at Portland State - Geology Major.			
Gilchrist, Dr. and Mrs. Francis G.	0644 S.W. Palatine Hill Rd.	1	CH 4248
Professor of Biology at Lewis and Clark College.			CH 7531
Heiberg, Mr. and Mrs. Harry M.	2726 S.W. Nevada Court	1	CH 9742
Salesman for Willamina Clay Products Company.			
Schull, Mr. and Mrs. Bert R.	418 N. Holland Street	11	UK 2755

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IMPORTANT: Bumper GSOC cards are a necessity on field trips. Obtain from Secretary Johanna Simon - only 10 cents each!

CHANGE OF ADDRESS

Greg Davis 212-A Village Stanford, California

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"PICNIC SILVER"

Stella Keen reports that Picnic Silver is still waiting to be claimed and taken home.

Item 1 - Tablespoon by Community
Item 2 - Tablespoon - Biglow Bros. and Kennard
Item 3 - Stainless steel knife

Will be happy to turn them over to their rightful owners on meeting night.

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GSOC EMBLEM PINS AVAILABLE

For those GSOC members who desire them, gold emblem lapel pins or studs can be secured from Carl Klein, Jeweler, Jackson Tower Building. These are available at a cost of $2.40 each, including tax, or $2.10 each in group orders of not less than twelve.

N.S.

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THE CHARCOAL WAGON BOY

Many of us feel a tingle of pride when we realize that Oswego's iron smelter which came into existence back in the 1860's was at that time the largest manufacturing development west of the Rockies. With this project as background, Teresa Truchot, of Oswego, Oregon, has written a fascinating, part-fictional narrative for young people, titled "The Charcoal Wagon Boy." It is based on the boyhood experiences of the late Charles Dickenson of Oswego who in his early teens drove an ox-drawn wagon laden with charcoal from the Dickenson pioneer homestead into the Oswego smelter, where it was used in firing the ovens that fused the iron ore into one of Oregon's first manufactured products.

The book, just out, is a publication of Binfords & Mort, Portland. Mrs. Truchot's interest turned easily to her subject as she has had first hand knowledge of many of Oregon's early historical events. This through the fact that her husband is a direct descendant of Samuel Black, as well as Pierre Panbrum, both early day employees of the Hudson's Bay Company. Even though it is written for the adolescent, we will all want to read and enjoy this story of Oswego's iron and some of the factors connected with its manufacture.

J.E.

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THE PYROCLASTIC ROCKS

By
Paul W. Howell

The word "pyroclastic" is a combination of two Greek words: pyro, meaning fire, and clastic, meaning fragmental. Pyroclastic rocks, then, are rocks made up of fragments originating in vulcanism (fire). Pyroclastic is a more inclusive term than the word tuffaceous and covers rocks ranging from volcanic breccias and agglomerates to fine tuffaceous shales.

The pyroclastic rocks are a much ignored and much maligned group. In the field they are usually soft, poorly exposed, discontinuous, and often hard to correlate. The coarser varieties are generally poorly bedded. Most types make poor building stone and dull cabinet specimens. As a consequence of these drawbacks, the literature is not abundantly supplied with data on pyroclastics. Yet, in the Pacific Northwest they make up a large percent of the stratigraphic column, and in the Western Cascade Mountains of Oregon they constitute perhaps 70 percent of the Tertiary rocks. Anyone doing field geology there and in many of the neighboring areas must familiarize himself with them, both in their fresh and their weathered state, or fail in his work. Even the amateur and the Sunday excursionist cannot ignore them if he is to get full measure from his travels in this region.

There is not room here to give and describe the entire classification of the pyroclastic rocks. Those who are interested should read pages 19 to 53 of the Bulletin of the National Research Council, no. 89, 1932: Report of the Committee on Sedimentation. In general, the classification of these rocks is based on fragment sizes, in a like manner to the more familiar rocks of fluviatile and marine origin. Listed below are the more prominent types found in the Western Cascade Mountains of Oregon.

VOLCANIC BRECCIA

Dominant fragment size greater than 1¼ inches. Fragments are angular, of previously solidified volcanic rock, and are held together by a matrix of volcanic material other then tuff.

TUFF BRECCIA

Dominant fragment size greater than 1¼ inches. Differs from volcanic breccia in that the matrix is tuff. Fragments show more variation in both texture and color.

LAPILLI TUFF

Dominant fragment size 1¼ to 1/6 inch. Fragments are angular and usually show considerable variation in texture and color. The matrix is tuff.

TUFF

Dominant fragment size less than 1/6 inch. Fragments angular. May or may not show variation in texture and color.

WELDED TUFF

A term covering tuffaceous rocks consolidated chiefly through the welding together of the fragments while their surfaces are still molten. Includes all sizes from tuff breccias to apparent volcanic glass.

META-VOLCANICS

A term describing moderately metamorphosed pyroclastics and lavas. In these rocks the original character can be ascertained, but sufficient change has

occurred to alter their texture, structure, hardness, and density. New minerals, especially epidote, feldspar, and quartz, are formed or introduced in the rock. There is often the growth of new crystals, called porphyroblasts, and occasionally some metallic mineralization. Specular hematite may be formed, but its occurrence is rare.

Generally speaking, the common pyroclastic rocks of basic composition are dark colored, soft, slack readily when freshly exposed, and form few if any outcrops in an area with humid climate. The acid pyroclastic rocks, on the other hand, are generally light colored, are resistant to weathering though not necessarily to erosion, and often form bold knobs and ridges, even in areas with a humid climate. They are likewise soft. The welded tuffs, being somewhat more dense and better stuck together than the types described above, often form cliffs and angular knobs. They have the further peculiarity of sometimes displaying columnar jointing, and, as a result, are mistaken for flow rocks. On close inspection, a specimen will be seen to have a streaked appearance due to the flattening and stretching of the fragments during the welding process. Some of the fine glassy types may be mistaken for obsidian, which, of course, does constitute the matrix. Inspection of a thin section under the microscope, however, will reveal the true nature of this type. Generally, a piece of welded tuff will give off a tinkling sound when struck with the hammer or against another piece of welded tuff. This rock may be comparatively soft, but the dense varieties may be harder than the common basalts and andesites.

The specific gravity of the common pyroclastic rocks usually ranges from 2.30 to 2.40, the welded tuffs from 2.40 to 2.60, and the meta-pyroclastic rocks from 2.50 to 2.70. Medium-grained acid tuffs and lapilli tuffs have found some use as dimension stone, especially in the construction of fireplaces where their low heat conduction and easy workability is of considerable advantage. Fresh welded tuff is fairly good material for most engineering purposes, except concrete aggregate. Meta-pyroclastic rocks have the strength and durability of the better flow rocks and generally have greater beauty. The common weak, slacking, pyroclastic rocks are a bugaboo and a trap for the unwary construction man. The fresh rock has a sound appearance but, after a week or so of exposure, large chunks may be crumbled to bits.

It is believed that if less attention is paid to color, fragment size, and soundness, and more attention paid to the petrography of the fragments and the matrix, not only will correlation be more easily made, but sources of the material may be traced out. The regional geology may thus be pieced together with little greater difficulty than is experienced in regions of sedimentary rocks and probably with less difficulty than is experienced in some regions of metamorphic rocks.

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THE CASE OF THE MYSTERIOUS "HAND ANIMAL"

This is the title of a very interesting article in the September issue of Natural History. Apparently little is known of the animal responsible for these uncanny "hand" tracks, but Andrew Hamilton's story of research concerning them made by Dr. Frank Peabody, University of Kansas Museum of Natural History, is a fascinating one. Read this account of a lively scientific argument.

J.E.

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THE DALLES TRIP
September 28, 1952

Forty Gesockers and guests met at the west edge of Mosier, on U.S. Highway 30, Sunday September 28, for a trip through The Dalles region. Lloyd Ruff, who is geologist with the Portland district Corps of Engineers and long-time member of GSOC, led the trip.

Geologically speaking, our meeting place was in the trough of the Mosier syncline - one of a series of anticlines and synclines across which the Columbia River has carved its gorge, exposing the folded rocks along its walls. In brief, our route took us through Mosier and southeast on a dirt road running along the divide between Rowena and Mosier creeks, then eastward to the north branch of Chenoweth Creek, and on to The Dalles. From there we continued on Highway 30 as far as Celilo Falls, and then turned back, making stops along the site of the future Dalles dam at Big Eddy, viewing it first from the Oregon side and then, after crossing the Columbia on The Dalles ferry, from the Washington side.

In chronological order the stops and the accompanying information by Mr. Ruff are given below. The route can be followed on The Dalles quadrangle sheet.

The first stop was at a gravel quarry on a hill about a mile east of Mosier and on the north side of the dirt road mentioned above. In the quarry walls were exposed fresh, uncemented, coarse sands and gravels which were cross bedded, but showed a general slope to the south. These gravels were deposited by what Bretz calls the "Spokane Flood." During late Pleistocene, Bretz believes, glacial Lake Missoula was impounded behind a sheet of ice 1,000 feet thick, and when the ice dam gave way the water rushed south across what we now call the "scablands," sweeping the gravels up into the tributary valleys along the Columbia. Remnants of this torrential delta-like deposit are perched in out-of-the-way places 600 to 700 feet above sea level along the Columbia River as far as Bonneville. Absence of fine sand in the gravels indicates that the fine material was carried on down the Columbia.

An interesting feature for GSOC collectors at this quarry was the hyalite opal which coats the lower side of so many of the pebbles. The opal is a clear, colorless, bubbly deposit which looks good enough to eat but is of no commercial value, gastronomically or otherwise.

There was a brief stop at about 1,300 feet in elevation on the divide between Mosier and Rowena creeks to view the Cascade Range. Mount Hood towered sharp and bright. At this point we were on Columbia River basalt and part way up the Ortley anticline, named after the ghost town of Ortley to the north.

At the third stop we were at the headwaters of the north branch of Chenoweth Creek. We had just crossed the top of the Ortley anticline and could look east into the Dalles syncline in which lay the light-gray Dalles beds of Pliocene age. To the east and beyond the Dalles syncline stretched the high plateau on Columbia River basalt, called by Dr. Edwin T. Hodge the "Shaniko Surface." To the northeast could be seen the line of the Columbia fault which parallels the river for about 80 miles. Of special interest at this stop was the old fossil forest with its opalized tree stumps still standing upright in the lava rock that buried it way back in Miocene times. Fossilized forests between lava flows are characteristic of the Columbia River basalt formation. Apparently, in some places, enough time elapsed between flows for a soil to form, seeds to come in, and a forest to grow. Unfortunately at this place, erosion has gone so far as to remove not only the

basalt that buried the forest but also the tree trunks down to their stumps, so that the pits excavated by opal collectors are now near the base. However, the collector can still get out some fairly good chunks of opalized wood in yellows and browns.

A short distance beyond the last stop, down grade toward the north branch of Chenoweth Creek, was a solid ledge of opal of unknown origin in the cut on the north side of the road. Some of this was red and some green.

Still farther down grade in the valley of the north branch of Chenoweth Creek we came to the level of the Spokane flood. Here were granite erratics, presumably rafted down from the north in icebergs, scattered about on the basalt surface at about 800 feet above the sea level. The erratics at this locality were largely granodiorite, diorite, and quartz monzonite.

At noon we reached the Chenoweth Creek Grange Hall where there was a sudden lack of interest in geology caused by the sight of baskets of food being hauled out of car trunks. On the grange-hall wood pile, under the shade of the trees, there followed an important period of erosion and deposition of fried chicken, sandwiches, and pie.

In the Dalles formation near the Chenoweth Creek Grange is one of Dr. Ralph W. Chaney's Pliocene leaf localities and also Condon's camel-bone locality. The leaf locality is south of the road in the bank along the creek bed, where a few not very well preserved leaves were found. A search was made along the bluffs north of the creek for camel bones, but the only bones found were chicken.

We continued on through The Dalles and eastward to Celilo Falls where the Indians, perched out on wooden platforms over the falls, were fishing with nets for salmon. Up along the road the Indian women were drying and smoking the fish, which we are glad to learn is for their own consumption considering that they calmly share it will all the flies for miles around. By 1956, this historic fishing place will be far beneath the surface of the Dalles dam lake.

The party turned around at Celilo and drove west about a mile along the highway and then walked down to the wide river bed. The strong winds sweeping across the bar had pelted the basalt outcrops and the river-bed pebbles with sand until they had acquired a glossy varnish, very similar to desert varnish. Many of the pebbles were sharply faceted by this process.

A stop was made at the lower locks to see some of the drill cores from the Dalles dam site, whose foundation is Columbia River basalt. The cores of basalt looked like long rolls of petrified sausage and everybody got a slice.

Above the locks and overlooking Big Eddy, the site of the new dam, we watched rock fill being dumped off a barge into the river channel, which at this point is 175 feet deep. This will be the location of the east end of the powerhouse. The dam itself will be 1½ miles long.

The whole group crossed the river on two installments of The Dalles ferry, and on the Washington side of the river drove east to Big Eddy, across the river from the previous stop, and went down into the bottom of what will be the west end of the power house. It was from this part of the dam site that the core samples we obtained had come.

Our very interesting and enjoyable trip terminated in the power house excavation with a cocktail party of Adam's ale served by Lloyd Ruff at a spring which

had been tapped by the removal of a drill core. From here we returned to Portland, some going back across the ferry to the Oregon side, and others by way of Washington.

A short list of references is appended here for the benefit of anyone wishing to go further into the study of the geology of the region:

Bretz, J. Harlan
1925 Spokane flood beyond the channeled scablands: Journal of Geology, vol. 33, p. 97-115, 236-260, 1925.

Chaney, Ralph W.
1948 The ancient forests of Oregon: Oregon State System of Higher Education, Condon Lecture, 1948.

Hodge, Edwin T.
1942 Geology of north-central Oregon: Oregon State College Studies in Geology no. 3, 1942.

McCornack, E. C.
1928 Thomas Condon, pioneer geologist of Oregon: University Press, University of Oregon, 1928.

Piper, Arthur M.
1932 Geology and ground-water resources of The Dalles region: U.S. Geological Survey Water Supply Paper 659-B, 1932.

M.L.S.

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FRIDAY EVENING MEETING, OCTOBER 10, 1952

Members of the G.S.O.C. and their friends had the pleasure of viewing a film entitled, "This is Aluminum, ALCOA Version." The film gave a picture of the manufacture of aluminum from the mining of bauxite to the completed product.

Following the film, Mr. David Beetem, chief metallurgist at the Alcoa plant in Vancouver, Washington, gave an interesting explanation of the different processes used in the production and fabrication of the metal. We learned that our own country has several deposits of low-grade bauxite. Bauxite is found in many parts of the world, one of the richest deposits being located in Dutch Guiana. This high-grade ore can be shipped to this country and processed more economically than our domestic bauxite. This leaves our own supply in reserve for use in case outside sources are cut off by war or other unforseen circumstances. Thus the aluminum industry will be able to maintain our necessary supply for years to come.

The latter part of the evening was given over to a question and answer period. Many availed themselves of the opportunity to learn more about aluminum and its manufacture. Mr. Beetem related many interesting sidelights experienced during his long association with the Aluminum Company of America. The instructive evening was enjoyed by all.

S.K.

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FIBER SANDALS FROM FORT ROCK DATED AT SMITHSONIAN

Americans of 9,000 years ago were skilled artists and artisans.

The oldest actual articles of human manufacture thus far dated are sandals made of fiber and some basketry decorated with a false embroidery found under a layer of pumice in Fort Rock Cave, Oregon, by Dr. L. S. Cressman of the University of Oregon. The age, as determined by Dr. W. F. Libby and his associates of the University of Chicago from the relative amount of radioactive carbon remaining in the vegetable fibers, is approximately 9,000 years. This places the weavers of the basketry and makers of the sandals as at least contemporaries, and possibly forerunners, of Folsom man whose peculiarly fashioned javelin points have been found in close association with the bones of animals which became extinct about the end of the last ice age.

The significance of the Fort Rock cave material, according to Dr. Frank H. H. Roberts, Jr., of the Bureau of American Ethnology in the Annual Report of the Smithsonian Institution, is that it shows these ancient Americans had reached a fairly high degree of primitive culture. The sandals, especially, show a fine manufacturing technique and an inventive concern for protection of the feet. They may have been on a par with the late ice age peoples of Europe.

Up to now these first Americans have been wraithlike figures in prehistory. No human bones have been found which can with certainty be associated with them. Essentially they have been known only from fragments of their weapons.

Even aside from the radioactive carbon showing, Dr. Roberts points out, there can be little question of the antiquity of the Fort Rock Cave deposits. The volcanic pumice which covers them also can be dated with considerable precision. It is not likely, Dr. Roberts points out, that the people of this particular locality should have been unique in artistic development. It is quite possible, he says, that artifacts from other areas populated at about the same time will show equal handicraft skill when they are found.

Folsom man -- named from the village of Folsom, New Mexico, where the characteristic javelin points used in hunting were first found in association with extinct species of animals -- remains one of the oldest occupants of this continent. For the past twenty years there has been considerable dispute over the period in which he flourished. Perhaps the best date, up to now, is about 9,800 years -- the carbon-14 dating for material found by the Texas Memorial Museum at a site near Lubbock, Texas. This material was associated with Folsom points, which are quite characteristic and cannot easily be mistaken for later Indian artifacts.

It is quite probable, Dr. Roberts points out, that the Folsom complex or culture persisted over a considerable period. (From The Smithsonian Institution, October 30, 1952.)

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HAVE YOU HEARD?

That, To the varied cognomens attaching to GSOC member "Fire Chief" Ray Golden, should be added "Mr. Fixit" and "Skipper's Mate." Just ask anybody who went on the Willamette River trip who did the necessary when the necessary needed to be done, and you will learn why . . .That we are proud of election of Clarence Phillips as chairman of the board of State bar examiners, at recent meeting of that group at Bend. . . Postal card from Greg Davis from Stanford University extends good wishes to all . . . That a son has arrived to Mr. and Mrs. R. E. Symonds (Dr. and Mrs. A Weinzirl, grandparents, and Mrs. John Weinzirl of Seattle, great-grandmother). . .Does President Norris Stone think it would be safe to turn specimen-hungry, pick-carrying Gesockers

loose in that Baptist church in Chicago where that beautiful jade window has just been presented by Mr. Kraft, jade lover and authority? . . .Ford Wilson has a knack of catching candid shots with his new Exacta that are astonishingly, well, something or other. . .GSOC member Robert Wilbur has been made chairman of Conservation Committee, on geological finds of course. . .That there is a good story on Dr. Ralph Chaney in September issue of Salem Geode. . .That our Annual Banquet date is March 13?

J.E.

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YOUR LIBRARY AND MINE

This column was started on Tuesday, October 28, while eleven of us were browsing. I overheard one gentleman remark "The thing I like best about these library nights are the discussions which inevitably take place. And I like to take a book home to enjoy." The librarian hopes she offended no one when she "squelched" a good political argument by reminding everyone that there was a rule to concentrate on geology. Others were inclined to sit quietly and read.

Miss Hughes, our Honorary Librarian, appeared quite pleased that the library was now more accessible to members. And a thank-you to her for presenting to the library four books: (1) Field Geology, by Lahee (1931); (2) Manual of Mineralogy and Petrography, by Dana (1886); (3) Dana's Textbook of Mineralogy, revised by Wm. E. Ford, 1922 (This work has an extended treatise on crystallography and physical mineralogy); and (4) Textbook of Geomorphology, by Philip G. Worcester (1939).

Dr. H. C. Dake has our warm thanks for his complimentary offer of three books, of which he is the author. They are (1) The Agate Book (1951) (beautiful plates and descriptions); (2) Mineral Club History (1943), which includes a creditable write-up of GSOC; (3) Northwest Gem Trails (1950).

President Norris B. Stone has constructed a new open-shelf bookcase, with adjustable shelves. The original bookcases were beginning to bulge at the seams! Besides the librarian's appreciating the extra book space, it should be gratifying to the entire membership to know that our collection of books and pamphlets is growing. A hearty thank-you to that gentleman for donating his time and effort in this direction!

Mrs. William F. Clark was my co-hostess for the evening; after the pleasant "coffee and. . ." period, Mr. Clark passed around some interesting specimens of crystals that were identified finally as zeolites with a question mark! Professional geologists were not on hand. The "die-hards" continued until after eleven perusing Dana and other textbooks in an effort to identify the small zeolite collection of the Bushby's. It was fun!

We have been looking for some of the new members to attend these library sessions. Won't you come soon? Will be eager to greet you Monday, November 10, and Tuesday, November 25.

Yours in the interest of Your Library and Mine

May R. Bushby, Librarian.

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WHAT'S NEW IN READING

1. A New Mastodont from the Miocene of Oregon, by Theodore Downs, published by University of California Press, Berkeley, California; price 35 cents.

The report describes a primitive species of mastodon found 10 miles east of Baker, Oregon, and believed to be the earliest record of that species in North America. The sediments enclosing the animal had been mapped in 1937 by Gilluly as lake and stream deposits of probable Miocene age because they appeared in places to interfinger with Columbia River basalt. Downs, on the basis of the mastodon identification, was able to ascertain the age of the sediments as middle to late Miocene.

2. Oregon, End of the Trail, 1951 revised edition, published by Binfords and Mort, Portland, Oregon; price $4.00.

This is a brand new edition of the Oregon guidebook that was compiled in 1939 by members of the Oregon Writers' Project. It contains many new illustrations and brings the written material of the old guidebook up-to-date. The guidebook, by the way, is a kind of bible for Oregonians, for it contains a wealth of information about the State from its earliest days up to the present. Half of the book is devoted to tours for which the mileage is logged in order to point out to the traveller the chief objects of interest along the highways.

M.L.S.

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DR. JOHN P. BUWALDA GUEST AT LUNCHEON MEETING - SEPTEMBER 18, 1952

Mr. F. W. Libbey introduced as his guest the eminent Dr. John P. Buwalda of California Institute of Technology. Dr. Buwalda gave a most enlightening and interesting talk on the recent Tehachapi earthquake. He had been spending most of his time since it occurred, he stated, in the field checking results and gathering technical data.

The earthquake, Dr. Buwalda explained, conducted itself in a most erratic and unpredictable manner. It didn't follow any particular fault line but appeared in some zones, even, where no faults were apparent. Its motion also seemed to be vertical rather than the usual horizontal one. Loss of life, luckily, considering the great intensity of the shock, was exceedingly small.

Dr. Buwalda was asked regarding reports of impending disaster by inundation of the great Salton basin as reported in various magazine articles. It was his opinion that the situation is not nearly as serious as the articles have reported.

He made some very interesting comments regarding work being done at the California Institute in geophysics and geochemistry. He mentioned the use of carbon in determining the age of materials as being a very great boon to archeologists. Study of the earth's interior, of various gases, lavas, also the content and age of meteorites are some of the interesting developments.

There were some 22 GSOC members present, 7 or 8 of them ladies. We were most happy to have as guests the soon-to-become Mr. and Mrs. James Trumbull (Ellen James); also it was good to see Miriam Shepard Roberts, long-time editor of News Letter, at the head table.

Bruce Schminky presided in the absence of President Stone. Mr. and Mrs. Edw. Bushby passed some very beautiful zinc crystals from the Lucky Jim Mine at

Zincton, B.C., and also what were thought to be garnets, these specimens being gathered by them on their recent vacation trip into Canada. Mrs. Barr had some flint concretions and chalk from near Amiens, France, that had been "bombed out" during the war. We were sorry indeed to hear that Al Vance had just undergone a serious operation but at present writing he is progressing nicely. Editor Emeritus Orrin Stanley made a very delayed and dramatic entrance but we forgave him when we saw that he held a pot of hot coffee as a peace offering for being so late.

J.E.

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ANOTHER IMPORTANT FIND BY A. W. HANCOCK

"This is a valuable specimen -- probably the most valuable scientifically that you have ever collected."

These words in themselves are such as to set the spine a-tingle anywhere. When applied as they were to a new find of GSOC member, A. W. Hancock, our "Lon," they become increasingly important as his very splendid collection of fossils is indeed well known. They refer to a "jaw and teeth" specimen found by Lon this past summer while he was in the Clarno area, and are quoted from a letter of Arnold Shotwell's, University of Oregon geologist who has been on leave at the University of California, where the specimen was sent for identification. The letter states further that this is probably from a small brontothere, Metarhinus. It is a specimen, Mr. Shotwell feels, that will have a great value as documented evidence for many future paleontologists. Congratulations, Lon, on this exciting find.

J.E.

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AN EVENING WITH DR. AND MRS. ARTHUR JONES

A social as well as educational and informative evening was enjoyed at the residence of Dr. and Mrs. Arthur Jones on Heather Lane, Portland, Tuesday, October 21.

Fossil specimens that represented many years of collecting from practically every important fossil area of the United States, as well as from other countries, were displayed in the Jones' basement hobby room. Upstairs in the informal living room were spread a myriad of guide books, brochures, commemorative publications, etc., that gave us a wonderful birds-eye view of what the Jones family saw and did on their recent European trip.

Hostesses assisting Mrs. Jones were Mrs. Leo Simon, Mrs. Wm. Clark, and Mrs. Edward Bushby, with Mrs. Rudolph Erickson at the coffee end of the long dining room table. After refreshments we again gathered 'round a most interesting display of some of the outstanding photographic studies of European scenes made by Irving Jones.

The evening at the Jones' residence was in lieu of regular Library browsing night at the Bushby's.

J.E.

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GSOC MEETING - YMCA, ROOM 305 - OCTOBER 2, 1952

Those present were R. L. Baldwin, May R. Bushby, Estella Conner, Mary Davenport, Rudolph Erickson, Ada Henley, Margaret Hughes, E. A. Kelham, F. W. Libbey, Tom C. Matthews, H. B. Schminky, Stanley H. Shirk, Leo F. Simon, Orrin E. Stanley, J. C. Stevens, Norris B. Stone, and Mr. Richards. . .Mr. Baldwin had received a recent letter from E. N. Bates calling attention to the fact that a cousin, Marcus Whitman Bates, who attended a GSOC picnic with Mr. and Mrs. Bates some years ago, was a

descendent of Marcus Whitman, the missionary who was massacred by the Indians near Walla Walla. . .Ada Henley called attention to an article "No Visitors from Space" in Science News Letter of August 30, 1952, which says that science now favors the belief that "there must be thousands of planets within our galaxy that support life not too different from our own." . . .A clipping from the Chicago Tribune of September 21, 1952, told of a jade window having been presented to the North Shore Baptist Church of Chicago by the GSOC's friend, Mr. Kraft of Kraft cheese fame. . . F. W. Libbey had brought a specimen of topaz from Hollis Dole to Leo Simon. Those with good eyesight could see it without a reading glass. . .May Bushby had a specimen of gold-bearing ore from Phoenix, B.C., that showed specular iron stains. . . Orrin Stanley had wind-faceted pebbles from near Celilo.

O.E.S.

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LUNCHEON MEETING - OCTOBER 16, 1952

At this luncheon meeting at the YMCA, some twenty GSOC members gathered and while we missed some of the regulars we were glad to see Al Vance back again after a recent illness, also Miss Hughes looking pert and chirper, as well as another long-time member, Dr. H. L. Underwood. New member, Mrs. Ethel Opitz, was present and Mr. Len Ramp, a geologist from the State Department of Geology and Mineral Industries, was the guest of Mr. F. W. Libbey.

A vote of thanks was extended the trip committee for arranging such an interesting trip up the Willamette River enjoyed by some 45 members and their friends on the previous Sunday.

A publication "The Flora of Eagle Creek" by Dr. Ralph W. Chaney was passed around by Leo Simon. Also, a copy of "The Ancient Forests of Oregon" by the same author was presented to the GSOC Library collection by Rudolph Erickson.

A beautiful specimen of native copper from the O'Halloran mine in Montana was presented to the Society by Mr. T. Herbert Laurence. Fossil leaf specimens from a new location on Jeff Davis Creek east and north of Prairie City located by Phillip Dale were shown by Mr. Rudolph Erickson. The formation is thought by Dr. Ralph W. Chaney to be Clarno. Mr. Erickson also told of another deposit presumed to be Mascall at Vinegar Creek on the middle fork of the John Day River.

Dr. Ruth Hopson, who incidentally had driven all the way in from Moro (Sherman County), Oregon, to be present at the luncheon, showed us a piece of tusk of a mammoth elephant from that same area. She also had some opal turned up from wheat lands which was said to carry a high gold content. Dr. Hopson makes a weekly trip to Grass Valley in Sherman County to teach a class in geology.

Al Vance drew considerable sympathy when he exhibited a whacked thumb, the result of trying to pop some concretions brought in from Sunset Tunnel. He found nothing for his pains (no pun intended) and explained that he still had a goodly supply of unopened specimens which were ours for the asking (or whacking). There were no takers.

J.E.

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"What is knowledge without enjoyment, without love? It is sympathy, appreciation, emotional experience, which refine and elevate and breathe into exact knowledge the breath of life!"

John Burroughs, Time and Change.

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GEOLOGICAL NEWS LETTER

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GEOLOGICAL SOCIETY OF THE OREGON COUNTRY

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SOCIETY OBJECTIVES

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 better acquaintance and closer association between those engaged in the above objectives.

SOCIETY ACTIVITIES, 1952 - 1953

EVENING MEETINGS: Formal lectures or informal round-table discussions, on geological subjects, on the second and fourth Fridays of each month, at Public Library Hall, S.W. Tenth Avenue and Yamhill Street. 8:00 P.M.

FIELD TRIPS: Usually, one field trip is scheduled for each month.

LUNCHEONS: Informal luncheons, with geologic motif, each Thursday noon, at Chamber of Commerce, 824 S.W. Fifth Avenue. 85 cents per plate.

PUBLICATION: The Geological News Letter, issued once each month, is official publication.

MEMBERSHIPS

A Member shall be a person at least twenty-one years of age who is interested in and supports the aims and objects of the Society and who has been recommended by the membership committee. A regular membership comprises: (a) a single person, or (b) a husband and wife, with children under 18 years of age. A Junior Member shall be a person under twenty-one years of age, with like qualifications and recommendation. Each membership receives one subscription to the Geological News Letter.

Persons desiring to become members should contact the Membership Chairman, Mr. Albert Keen, 2705 N.E. 41st Ave., Phone GA 0229. Annual dues are $3.50 for residents of Multnoma and adjacent counties, $2.50 for others, and $1.50 for Junior Members. Remittances should

CALENDAR FOR DECEMBER - 1952

Thursday Dec. 4	Luncheon Meeting - YMCA Cafeteria
Tuesday Dec. 9	Library Browsing time "Your Library and Mine" Residence of Mr. and Mrs. Edw. Bushby, 1202 S.W. Cardinell Drive
Thursday Dec. 11	Luncheon Meeting - YMCA Cafeteria
Friday Dec.12	Friday night meeting Library Hall - 8:00 p.m. Dr. Arthur Jones will give more on the geology of Western Europe with particular emphasis on England.
Sunday Dec.14	Field Trip - See details below
Thursday Dec. 18	Luncheon Meeting - YMCA Cafeteria
Thursday Dec. 25	Christmas Day - No luncheon meeting
Friday Dec.26	No Friday night meeting.

FIELD TRIP FOR DECEMBER

Sunday, December 14, 1952

The field trip will be to Albany to visit the Fred Roner collection of minerals, fossils, and polished agate and wood specimens, between 10:00 a.m. and 11:00 a.m.

Leave Salem on Highway 99, drive toward Albany until you reach the Barrett Brothers International Truck Company, turn left three blocks to 11th and Oak. We will have GSOC bumper cards posted. After leaving the Roner collection we will visit Mrs. Harnisch's collection, and there we will eat our lunch. You bring the lunch. Refreshments will be served.

Mrs. Harnisch's collection consists of rocks, minerals, and fossils which are uniquely displayed and should be of interest to amateur collectors.

If you need or can furnish transportation, please call Mr. or Mrs. Leo F. Simon, BEacon 0300 or EMpire 0549 by Friday, December 12.

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THERE WILL BE NO FRIDAY EVENING MEETING ON FRIDAY, DECEMBER 26!

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NORTHWEST SCIENCE EXPOSITION TO BE FEATURE OF OREGON MUSEUM

On March 16 to 20, at Portland State College (old Lincoln High School building) will be held the Northwest's first Junior Science Exposition. This is a planned spring activity of the Oregon Museum of Science and Industry and is for the purpose of encouraging young students to demonstrate their scientific accomplishments and activities.

If you know of some student of a public, parochial, or private school who has developed an interesting scientific theory and who can create a display for entry in this exposition, you can be of aid to him and to the exposition by helping him get the necessary entry information and rules from Stanley Shirk, director at the Museum.

Expositions of this kind have been received enthusiastically by teachers, pupils, and the public wherever they have been held in the eastern states. In some cases they have been the instrument of putting students in contact with the science departments of organizations in the outside technical world.

J.E.

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ADDED SPEAKER ATTRACTION IN AUDUBON SERIES

Supplementing the Audubon Screen Tours will be illustrated talks stressing conservation of the Wildlife, forests, land, water, and recreational facilities of the Northwest. The first of these was a most interesting talk by Mr. Tom McAllister of the Oregon State Game Commission on November 10.

On December 8, the supplementary talk is "What does the Picture Show?" by Melvin Burke, watershed expert from the U.S. Forest Service.

Other Audubon dates are February 16, March 16, and May 6. Mark these on your calendar so that you don't miss these interesting and stimulating sessions.

J.E.

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THREE ARCH ROCKS

Once we were a part of Ocean's floor
Whose sands were washed upon the changing shore
Of mystical horizons.
Long ages passed. . .
And now, at last, we stand majestically apart,
Yet feel the beat of Neptune's heart
Against our own eternal pulse of time.

Small grains of sand, the tides, the warmth of sun. . .
An artist dreamed His dream and made us one.

Jean Stephen Johnston

****

DR. ETHEL I. SANBORN

The many friends of Dr. Ethel I. Sanborn, professor emeritus of botany and paleobotany at Oregon State College, were deeply saddened to learn of her death on October 31, 1952, at Vancouver, Washington.

Dr. Sanborn's long and undeviating devotion to science, the stimulating and inspirational aid given to her students, and her many important scientific publications are but a few of her attributes by which we measure our loss. Always a friend to those needing her assistance, she gave with unending patience and without stint to those many students and others who sought her guidance during the years that she was instructor at the University of Oregon (1914-32) and at Oregon State College (1932-48).

Among her many botanical publications the most outstanding are "Moss Floras of the Willamette Valley" (1941) and "Marine Algae of the Coos Bay-Arago Region," (1944-47). In 1938, she was co-author with Dr. Ralph W. Chaney on the "Goshen Flora of West Central Oregon," a most comprehensive work. Subsequently she published "The Scio Flora of Western Oregon" an Oregon State College publication (1947). According to Professor Ira S. Allison, dean of geology at that institution, her paleobotanical studies of the Goshen, Comstock, and Scio fossil floras are especially important contributions to our knowledge of Tertiary vegetation and climates of western Oregon, for which geologists are most grateful. At the time of her death she was at work on a publication concerning material from along Branch Creek near Pilot Rock in central Oregon.

Dr. Sanborn made important contributions to the pages of our GSOC News Letter, among these being "Prehistoric Forests of Oregon," (1936), also "Methods used in collecting and preserving paleobotanical specimens," (1938). At different times she gave most interesting talks on various subjects at meetings of GSOC members. She was a member of Sigma Xi, Phi Beta Kappa, Pi Lambda Theta, Delta Kappa Gamma, A.A.U.W., D.A.R., Alpha Xi Delta, and the Oregon Academy of Science. She was given a "citation of merit" award by this latter organization at its 1952 meeting.

A part of Dr. Sanborn's personal paleobotany library was left to her long-time friend, Mrs. Eleanor Gordon, of Salem, Oregon, who did much to brighten her later health-impaired years. The balance of her library has been donated to Oregon State College by her sister, Mrs. Richard Boetticher.

The pall bearers at services held at Vancouver, Washington, were Mr. A. W. Hancock, Mr. Ted Gordon, Dr. L. M. Deitz, Mr. Leo F. Simon, Mr. M. L. Boetticher, and Dr. Finney.

In our affectionate contemplatation of Dr. Sanborn and her long years of devotion and closeness to the earth sciences, the words of Walt Whitman seem

particularly apropos:

". . .the sights of the open landscape, and the high-spread sky are fitting,
And life and the fields, and the huge and thoughtful night.
The night, in silence, under many a star;
The ocean shore, and the husky whispering wave, whose voice I know;
And the soul turning to thee, O vast and well-veil'd Death,
And the body gratefully nestling close to thee."

J.E.

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MEMORIAL BOOK FUND AT CORVALLIS

We have word from Professor Ira S. Allison of Oregon State College at Corvallis that a number of the friends of Dr. Ethel Sanborn have contributed to a memorial fund in her memory. This for the purchase of books by the college library. Dr. Sanborn's own personal library has been donated to the college by her sister, Mrs. Richard Boetticher of Clear Lake, South Dakota.

Contributions can be made by check or money order by anyone interested in having a part in this very useful and appropriate project. These should be made payable to Oregon State College, marked: "Dr. Sanborn Memorial Fund" and sent either to the department of Botany or Geology. Any amount will be most gratefully accepted by those promoting the fund. It is an opportunity to express, in a small measure, the esteem and affection we hold for Dr. Sanborn.

J.E.

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PHIL BROGAN TO RECEIVE DEGREE IN JOURNALISM

Our "east of the Cascades" reporter, Phil Brogan, whose contributions on Oregon geology have long been a feature of the Sunday Oregonian, as well as our own News Letter, will receive his baccalaureate degree in journalism next June from the University of Oregon.

The degree will come to him exactly thirty years after his completing the necessary work. Due to certain technicalities, Brogan did not graduate at the time he completed the requirements which was in 1923. Now these have been cleared away and he will graduate with the class of 1953 with a bachelor of Science degree.

"Phil" has long been a leading writer and authority on the geology of the Oregon country, his articles being used as class assignments in the universities. He is also a member of the news staff of the Bend Bulletin. His many friends among GSOC are glad indeed to see him receive this long-deferred recognition.

J.E.

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NOMINATING COMMITTEE NAMED BY PRESIDENT STONE

The following members have been named as our nominating committee for 1953: F. W. Libbey, Chairman, Mrs. A. W. Hancock, Miss Clara Nelson, Lloyd Ruff, and Leo Simon. If you have any ideas about who should be what, get them to the members of this committee.

J.E.

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WILLAMETTE RIVER TRIP - OCTOBER 12, 1952

By

Clara Stone

It's Columbus Day and some 45 GSOC members and friends are gathered at 9:00 a.m. at the K&R Marine Service Landing at Bridgeton, Faloma, on the Oregon slough side of the Columbia River. Great excitement prevails for this is to be a Sunday of sightseeing and exploration.

The K&R Marine skipper soon has us apportioned to the two launches that are to take us down the Columbia to the mouth of the Willamette, thence on to explore that river as far as Oregon City. The "Lu Ray" is in charge for the day of "Commodore" Leo Simon, and the launch in which we are riding, the "Yours Truly" has as its temporary command, none other that "Commodore" Bruce Schminky. Hawsers are cast off, whistles tooted, we find a place to sit down and are off in a flurry of fog around the eastern tip of Tomahawk (Lotus) Island.

Here we skirt the first-to-be-noted geological formations, sandbars (land in the making). Threading past them, we "cross the bar" and are out on the Columbia. Commodore Schminky pulls out maps that date back 160 years - the fog begins to lift, the sun shines and we begin to learn step by step the history and geology of these two "Rivers of the West."

First, Bruce hands us Lt. Broughton's map of the Columbia, the oldest drawing extant of the Columbia River. Lt. Broughton was with the Vancouver party who charted the West Coast, from Alaska down, in an attempt to find the Northwest Passage for the English. He entered the Columbia River in October 1792, and then in a smaller boat rowed up and mapped that river as far as the entrance of the Sandy. This point was indicated as "Vancouver" on the map, so named in honor of his commander. He and his party saw a mountain peak to the east from which they believed the waters of the Columbia originated, and this peak they named "Mt. Hood." This is the first known time that Mt. Hood was seen by white man.

We are all excited over the maps but there's too much to see to digest all they contain. There is great excitement, too, we can see, in the "Lu Ray" which is chugging along to the north of us. "Commodore Simon" is pointing across river to his right and we know that he is showing his group where old Fort Vancouver stood for there the site is, right in front of us. In our launch "Commodore Bruce" pulls out a drawing (1850) of the town of Vancouver, showing the old stockade located as we know the location today. The original fort (built in 1825) he says was located on the high ground just to the east where the School for the Deaf now stands. He also calls our attention to the fact that the spot named Vancouver shown on Lt. Broughton's early map, is about twenty miles east of where the city is today.

Suddenly, we find ourselves passing under the Interstate Bridge, our two craft now side by side on either side of the draw span, which puts the "Lu Ray" in the state of Washington and "Yours Truly" in Oregon. Has the boundary (the channel of the river) always been at this point in the river? To answer that, Bruce pulls out another map - 1897 Geological Survey (the first quadrangle map of the area ever published) depicting the channel of the Columbia River south of Hayden Island. Hayden Island is shown on this map (erroneously) as being in the state of Washington. That came as a shock to many of us. This map does not show any Tomahawk (Lotus) Island.

Maps keep unfolding. We have before us now Lewis and Clark's 1805 map, made up partly of hearsay from the Indians. It depicts the headwaters of the Willamette River as "Youta (Utah) Lake" (Salt Lake). It was shown thus on various maps up until 1838. In looking at these maps, the Lewis and Clark, the Hall Kelley map of 1830, and others, we see strange names: "River Multnomah" (instead of Willamette), "River Manning" (ah, the power of suggestion; Norris Stone pours himself a cup of coffee), "Willamut," "Champooing." Now we are approaching the entrance to the Willamette, the waters are rough and a few of our young sprouts perched on the prow of the "Lu Ray," got just exactly that, a "Champooing."

We look down into the water. Suddenly, it changes color. Now on the Willamette, we still look at maps. Here's one made by the expedition sent out by the United States Government in 1841-2-3, under the leadership of Lt. Wilkes. The Wilkes' expedition explored the Hawaiian Islands, Alaska, and the West Coast. They charted the Columbia as far as the Cascades and the Willamette as far as the falls at Oregon City.

Now our Commodore starts handing out Government Survey maps, the first of which were made in 1851. These show the general features of the land, sections, townships, rivers and streams, depth soundings, etc.

We are approaching the outlet of Columbia Slough. Just beyond, on the opposite side of the river, between Sauvies Island and the mainland is the slough we now know as Multnomah Channel. It wasn't always a slough, however, but was once the main channel leading from the Columbia into the Willamette. From the entrance to Multnomah Channel to the present mouth of the Willamette was a tangle of stumps, logs, and debris of all kinds, lodged in a manner to make it unnavigable. In 1851 a Captain Pease blasted out this debris so that ships could enter the Willamette at its present mouth.

This entanglement, along with the showing of basalt hills south of Multnomah Channel is what fooled the early explorers. Lewis and Clark, on their trip downriver, didn't even suspect that there was a river emptying into the Columbia at that point. It was not until they returned in the spring of the next year that they entered the Willamette and went on to about what is now Terminal No. 4. There was an abandoned Indian village at the mouth of a slough running back to Ramsey Lake, long since filled in. The maps show numerous lakes and waterways which, over the years, have been reclaimed into productive land. The explorers camped over night near this abandoned Indian village, pushing on the next day to possibly what is now University Point, then they turned around and went back.

The "Lu Ray" pulls alongside, a hungry lot, with coffee, sandwiches, etc., much in evidence. Again, the power of suggestion! We all join in a hearty lunch, missing nothing as we cruise along.

(Continued to January issue.)

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BASEMENT TRIP

The rumor is that we will have a Sunday afternoon "Basement Trip" some time in January or February. Watch for date in News Letter.

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DR. J. C. STEVENS TALKS ON NEW THEORY OF GLACIATION

As the speaker at Friday evening meeting of October 24, Library Hall, we were privileged to hear GSOC member Dr. J. C. Stevens outline a new theory of glaciation as discussed in a recent article by Karl A. Pauly, a retired engineer, in the Scientific Monthly.

We were especially alert to Dr. Stevens' remarks as he is an engineer and a successful inventor and business man who has made valuable contributions in the field of technology. He is listed as such in Who's Who in America and was honored also by Oregon State College in 1938 with an honorary degree of Doctor of Engineering with a similar degree conferred on him in 1947 by the University of Nebraska. He is a past president and for many years has been a director in the American Society of Civil Engineers. We in the Northwest know him best perhaps as a member of the firm of Leupold & Stevens, manufacturers of scientific instruments and founder and leading influence in the Oregon Museum of Science and Industry.

Dr. Stevens explained that the subject on which he spoke was first advanced by A. S. Eddington in a paper entitled "The Borderland of Geology and Astronomy" and that it has been the object of a large amount of research by Mr. Pauly.

Mr. Pauly believes the great ice ages were caused by shifting of the lithosphere (outer several miles of the earth's crust) on the interior of the earth, assumed to be in a more or less plastic state, held in position by the enormous weight of the earth's crust. The same forces which cause the tides in the oceans exert a tremendous pull on the land also sliding the crust and placing another part of it over the north and south poles. This causes severe glaciation of the portion moved over the poles and changes the climate of all the earth's surface.

Investigations were made of terminal moraines of Pleistocene and modern free flowing glaciers in North America, South America, Asia, Africa, New Zealand, and Australia and comparisons made with their latitudes and elevations. The result of these studies supported the theory of lithospheric displacement, shifting new portions under the poles many times. He believes this displacement is the direct cause of all the climatic changes we know have occurred during the earth's existence.

This theory eliminates many of the ideas previously advanced as the cause of glaciation, interference between the sun and the earth, cutting off some of its heat, long periods of excessive rainfall, etc.

Dr. Stevens' lecture, illustrated with slides, explained the subject very thoroughly. He was kept busy for some time after the lecture, answering questions which further clarified this interesting theory.

We are indebted to Dr. Stevens for a very interesting and instructive evening, which will undoubtedly lead to further study by at least part of those present.

A.K.

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LUNCHEON NOTES - October 23, 1952

Those in attendance were: Mrs. Arthur Jones, Mrs. Ethel Opitz, and the following gentlemen: President Stone (who presided) and Messrs Baldwin, Simon, Kelham, Erickson, Hancock, Elder, Shirk, Schminky, Vance, and Keen. Announcement was made of the next field trip covering part of Portland and some of the surrounding area to be led by Bruce Schminky. Mr. Shirk announced the Audubon Screen Tours. It was decided that the beautiful specimen of native copper donated to the Society by Mr. Lawrence would be turned over to the Oregon Museum of Science and Industry as the Society has no place to display specimens.

SMITH'S FLUORESCENTS

Library Hall - November 14, 1952

Program chairman, Tom Matthews, introduced the guest speaker, Mr. Archie H. Smith, of Smith's Fluorescents, and Mr. Smith started off his lecture by saying that it consisted of 90 percent display and 10 percent talk.

The display covered about 250 specimens of fluorescent minerals, several Geiger counters, different types of black lights, a tray of calcite crystals from Mexico, and many miscellaneous articles.

After a detailed description of the Geiger counters, Mr. Smith demonstrated the different "black lights," and answered many questions regarding the advantages and disadvantages of each. The audience was particularly interested in the Mercury arc light when told that this type of light is used at the Ice Capades to bring out the beautiful colors of the costumes which are made of fluorescent satins.

A piece of Fluorescein glassware from England, which has the ability to excite a Geiger counter, was of special interest. Also a bottle containing a mixture of fluorescein and water. This, according to Mr. Smith, is used to trace the passage of water in rivers and streams from its source to the ocean or other terminal.

Mr. Smith described his fluorescent display as a "Symphony of Color." From the chorus of "Oh's" and "Ah's" heard as he and Dick Walker played the short or long wave lights on the different specimens, it was apparent that the GSOC members felt the understatement of this remark. Mr. Smith pointed out a piece of "calcite and franklinite" as his number-one specimen, which under the short wave lamp showed deep red and black. The audience expressed great appreciation for a specimen of fluorite from England which, under long wave light, fluoresced a beautiful blue. There was an enthusiastic discussion regarding the specimens from the Franklin Furnace area of New Jersey.

Among the Oregon part of the collection, were two specimens which aroused an animated discussion. The first was a specimen of uraniferous chalcedony on rhyolite from central Oregon, which fluoresced a bright yellow green. Mr. Smith said that he had another, an historical specimen of this material from the Mutton Mountains, which he never takes out of his store. He said, "It is historical because it is the first of its kind discovered in Oregon." The second was a piece of fluorescent, mottled semi-opal, from southeastern Oregon which the discoverer claims was found, not in the "belly of a whale" but in the like cavity of a dinosaur.

The lecture then settled down to a veritable game of "I spy," as individuals in the audience called out for Mr. Smith or Dick to play the lights on the specimens of their choosing. This would have continued, indefinitely, had not Leo Simon come to Mr. Smith's rescue with a suggestion that the meeting be brought to a close, and we all reluctantly left the hall.

C. Clark

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YOUR LIBRARY AND MINE

Browsing night of November 25 was a "first" for three of the fifteen members who attended. We hope they come again and we do wish more new members would come - at least once to see how worthwhile are these informal get-togethers. Bring a specimen and have it identified if you wish and ask all the questions you desire. There are only one or two rules. While in the library for reading and reference purposes, all conversation should be limited to geology or related subjects. This rule holds until after the member who has been asked to handle the "surprise" has completed his program. This enables everyone to learn a little about geology or mineralogy outside the atmosphere of formal lecture nights. Coffe and ... follows with a social hour.

A thank you to Mr. and Mrs. Leo F. Simon who handled refreshments and the "surprise" so pleasantly and capably. You who did not attend should be envious of our experience. Leo had an excellent display of native copper and copper ores - specimens of native copper in quartz X'ls; native copper in calcite; azurite nodules; malachite in quartz; chalcanthite (blue stone) or blue vitriol used in copper plating and in water supply reservoirs to kill algae; green X'ls of African diaphase; chrysocolla with drewsy quartz X'ls; chalcopyrite (which is the most important copper ore although not of the highest copper content); and many other interesting and beautiful specimens including a gorgeous azurite X'l on lush green malachite borrowed from the Oregon Museum of Science and Industry that is a beauty.

After eighteen hours work last week on the librarian's part and three hours on the part of Dick Walker (thank you Dick) the first penciled draft inventory of the library has been completed. Mrs. Estella Conner and Mrs. Wm. F. Clark are assisting in preparing the first typed draft. A journal has been purchased in which from now on every acquisition to the library will be recorded which should somewhat simplify the preparation of future inventories. On a former Saturday, Mrs. Murray Miller worked five hours on the library with the librarian. A big thank you for all this help. Do I have more volunteers to help with the typing or other duties?

A thank you too, to Grace Poppleton who delivered to the library some 200 copies of old issues of our News Letter, some bound copies and a few issues of The Mineralogist and several books. And to Dr. Francis T. Jones for three complimentary copies of a reprint of his article, "Iris Agate" which appeared in a former issue of American Mineralogist. An ad in the April 1936 issue of this publication reads: "Special fluorescent issue of January 1935 of The Mineralogist at 35 cents per copy." Another ad to the effect that $1.00 will bring a piece of iridescent obsidian with a cabochon of same. A California firm offered selected gem quality of iridescent obsidian for $1.50 per pound. Pony Ridge thunder eggs brought $1.00 to $4.00 each. Should be interesting to compare with today's prices.

Just one browsing night in December! Won't you come and join us on Tuesday, December 9?

Yours in the interest of "Your Library and Mine"

May R. Bushby, Librarian.

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HAVE YOU HEARD?

. . .That in a story in the Oregon Journal telling about Dr. and Mrs. Edwin T. Hodge leaving for South Africa, it stated that they sailed on the "Vulgaria?" Just a slight missprint, it was the Italian Steamer "Vulcania." . . .Another news item in Oregonian tells us we are soon to have long-range weather forecasting. Up to five days in advance, it says, with elimination of all "probablys," "possiblys," etc. Wonderful for Geesocker trips! . . .That Phil Brogan writes of Poebrotherium, the little camel that shared our John Day pastures with Miohippus, the three-toed horse, in Oregonian of November 9. . .our "Presidents' Picture Book" still lacks photo of the "shoemaker," er a, beg your pardon, the "photographer" Leo Simon, who is still holding out. . .Thomas Henry, Science Editor, tells us that petroleum is created in a relatively brief time, geologically speaking, this discovered by carbon tests. . .That the interesting display of quartz crystals and fossilized material placed by GSOC member Maury Miller in the public library at Oregon City has been attracting a lot of attention. . .That there will be no Friday-night meeting December 26. . .That Dr. Claude Adams sent us a clipping about the hairy mammoth on display in Albany, Oregon, discovered by William Falk, a farmer of that area. . .that F. W. Libbey was guest editor in the Oregon Journal with an article on western chromite. . .that GSOC member Grace Poppleton and her mother were featured on Oregonian's "Back to the Mayflower" page. . .That a Univ. of California paleontologist is preparing to reconstruct the bones of a prehistoric "sea serpent." At last the Hollywood adjectives "stupendous" colossal" and such like will be truly applicable. . .that a number of GSOC members heard Dr. R. C. Miller, director of California Academy of Sciences, tell members of Oregon Museum at their annual banquet that television is a fine educational medium. . .and from ex-president Ford Wilson, another item stating that R. H. Corey, well-known Portland consulting engineer, is retiring from active practice. . .Also, from Ford, the story of geologist Claire P. Holdredge who was inspecting possible earthquake damage at Isabella Dam near Bakersfield (of which he found none). It seems that geologist Holdredge, noticing a small crack in the ground, stooped to examine it when the earth parted and there, before his very two eyes (or perhaps we should say, "between his very two feet") the said ground opened up a matter of another six to eight inches. If Mother Nature is going to disclose her secrets this openly, geology won't be fun any more.

J.E.

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LUNCHEON NOTES - November 6, 1952

Some nineteen members gathered for luncheon today, President Norris Stone presiding. . .Material started circulating, among which was a piece of iron given to R. Erickson by John Walsted of the Bureau of Mines at Albany, Oregon. This was from ore that exists in quite a large amount at Scappoose, Oregon. F. W. Libbey explained that wood waste was now being used as fusing material in manufacture of iron in Oregon. . .A postal card from R. F. Wilbur was passed around; he is vacationing in Nebraska and points east. He promises some interesting specimens to show us on his return. . .Stanley Shirk told of forthcoming Audubon screen tours, also about plans for televising educational programs from the Oregon Museum of Science and Industry. He stated that a large piece of fossilized wood is being brought down from Cascade Locks for display at the Museum. Tom Matthews showed us an interesting brochure on"salt" and Mrs. Edward Bushby, an article about a recent anthropological "find" in the southwest. . .Guest of the day was Mrs. Glenn Yount, sister of Mrs. R. Erickson.

J.E.

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ADVENTURE OVER THE HILL

In 1943 I walked out "over the fill and far away" with a group of amateur geologists. They carried wicked-looking hammers with which they walloped harmless and unresisting pebbles with astounding zeal and enthusiasm.

There were 15 of us in the party. A young soldier and his wife from the east; an enthusiastic lady whose chief interest seemed to be entomology; myself, mostly interested in botany; a short, swarthy man interested in everything; and a small, energetic woman and her equally energetic daughter who was a college student majoring in geology.

The party was led by an amateur. He expounded volubly and at great length on the rocks, pebbles, and ledges, swinging at them viciously with his hammer. He explained to us about quartz, quartzite, basalt, granite, metamorphic rock, igneous rock, rhyolite, and silicates. He showed us where gravels overlaid basalts and the reason therefor; he pointed out many other very interesting features which most of us would have passed without seeing.

We stopped for lunch in a shady place. That over, we went on, following the road as it curved in and out among the hills. I walked awhile with the short, swarthy man and found him very interesting. He was of Greek parentage, born and raised in the city of Smyrna. He was a man of boundless enthusiasm, a great lover of the out-of-doors and possessed an insatiable curiosity about nature in all her forms.

Presently a peculiar formation of basalt was discovered on the upper side of the road. Our leader held forth about it, giving his explanation for the peculiarity. At the end of his talk a member of the party disagreed with his conclusions. A mighty argument ensued, eventually drawing in nearly half of the party, while the rest of us sat and listened ---- and rested.

We stopped at one point after another. When the excursion ended we found we had been six hours in covering the six-mile route. I had learned something about geology - and geologists!

Yes, you've guessed it! My "adventure over the hill" led me eventually straight into our own GSOC and happily for me, I've been there ever since.

E. A. Kelham

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LUNCHEON MEETING - NOVEMBER 13, 1952

Among the twenty geological enthusiasts who met for luncheon at the YMCA were Dr. Underwood, Mrs. Eleanor Gordon, A. D. Vance, Jr., and new members Mr. and Mrs. Bert R. Schull. . .May Bushby had copies of a pamphlet by Dr. Francis Jones about iris agates reported from American Mineralogist. . .It was announced that Glenna Teeters is home from the hospital with assurance that there will be absolutely no complications. . .A card from R. F. Wilbur mailed in Nebraska was read. . . A paper by F. W. Libbey, delivered at the 1952 convention of the American Mining Congress in Denver and reprinted as a guest editorial in the November 12, 1952, issue of Oregon Journal, was circulated by Leo Simon. . Names of the nominating committee of the Society for 1953 were read.

O.E.S.

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GSOC LUNCHEON MEETING - NOVEMBER 20, 1952

R. F. Wilbur brought some interesting specimens from Nebraska and Utah, including a section of a crinoid stock converted into carnelian; some brachiopod fossils in a carboniferous stratum. He had spent some time with the curator of the museum at the University of Nebraska in Lincoln and mentioned, particularly, the reconstructed skeletons of early inhabitants of the continent. . .A. W. Hancock had some specimens of black sand, very coarse. No one would state definitely that the particles were, or were not, fragments of obsidian. . .The meeting was enlivened by visitors scheduled to meet in another room who strode in officiously and backed out hastily when they discovered their error. . .Some discussion and a vote in favor of a December field trip, probably to Aurora, and generous servings of veal cutlets stimulated the seventeen members present both geologically and materially.

O.E.S.

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HIGHEST MOUNTAINS OF EASTERN NORTH AMERICA
RISE AGES BEFORE BIRTH OF HUMAN BEINGS
By
Thomas R. Henry

The loftiest mountain range of eastern North America and probably the oldest in the world is an unnamed stretch of jagged peaks which extends along the northeastern coast of Baffin Land, largest of the American Arctic islands except Greenland.

These are unnamed mountains, largely unexplored except by air and probably unexplorable. Their rocks, for the most part, are more than 500,000,000 years old. They were formed before the earliest living things which have been preserved as fossils appeared on earth.

The range, whose peaks rise to altitudes of 9000 feet in places, constitutes some of the most spectacular scenery in eastern North America, according to a description of the Canadian Arctic just issued by the department of mines and technical surveys at Ottawa. The lofty peaks and serrated ridges are partly buried under permanent snow fields and ice caps.

Long, twisting glaciers fill many valleys, discharging into the sea at several places and drifting slowly southward into the north Atlantic as icebergs. The whole coast, with its indentations and fjords, rises abruptly from the water, presenting a barrier of rugged grandeur facing Greenland across Davis strait.

The range is cut in two by Lancaster sound, the remarkable water channel which cuts the Arctic islands into northern and southern halves. It breaks out again on Bylot island, where its peaks jut out through an interior ice cap, and appears again in northern Ellesmere land, within 500 miles of the north pole.

The Ellesmere mountains are divided into two ranges, the United States and British Empire ranges.

(From The Oregonian, October 15, 1952.)

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