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THE GOLDEN YEARS OF EASTERN OREGON

By Miles F. Potter and Harold McCall

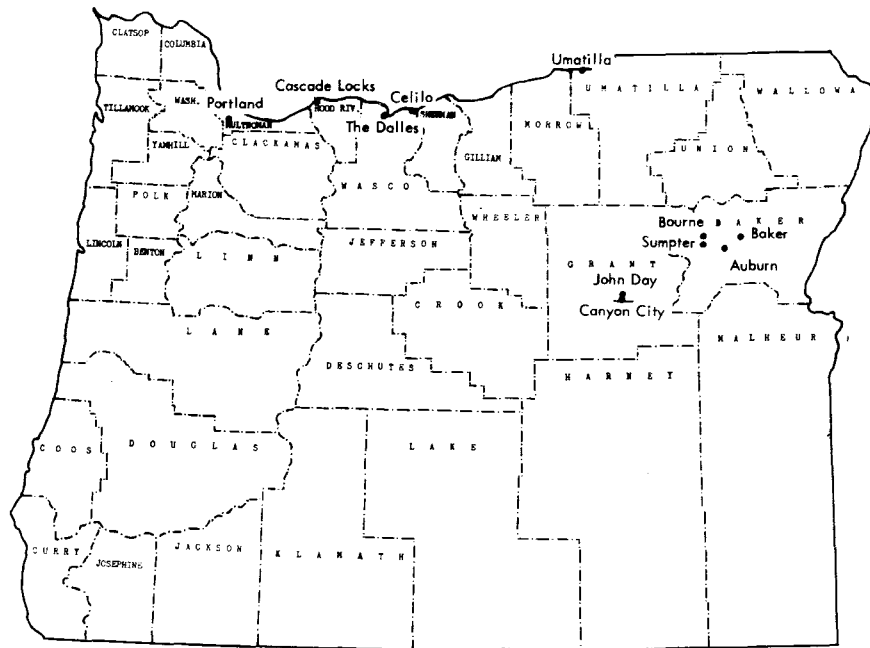
The following pictorial article on the golden years of eastern Oregon, by Miles F. Potter and Harold McCall, is an abstract from their manuscript of a forthcoming book they are calling "Golden Pebbles." Potter is a long-time resident of eastern Oregon and an amateur historian of some of the early gold camps in Grant and Baker Counties. McCall is a photographer in Oregon City with a keen interest in the history of gold mining. The two authors have been working together for a number of years assembling photographs and data from many sources for their book. Their article and the accompanying pictures in this issue of The ORE BIN remind us of a commonly forgotten fact: that the discovery of gold in eastern Oregon had a tremendous impact on the economy and development of the entire region which is still felt a full century later.

Gold mining was also the mainstay of the early economy of southwestern Oregon and played an equally significant role in the development of that region (see: "Lest We Forget," by F. W. Libbey, June 1963 ORE BIN). Ed.

Prior to the start of the Civil War in 1861, the early pioneer wagon trains which traversed the Oregon Country east of The Dalles did not tarry. Instead, they rolled ever westward through eastern Oregon's vast wilderness over the dusty ribbon of the Oregon Trail to the comparative safety and more alluring market area of the Willamette Valley. Contributing to this westward push was a military order by General Wool discouraging settlement in the eastern area by immigrants, or "whites," other than Hudson Bay men and miners [provided that the miners did not molest the Indians and their squaws].

The story of the early settlement of eastern Oregon owes its existence to a particular wagon train known today as the "lost wagon train of 1845" -- so named because its members took an ill-advised short cut through east-central Oregon and lost their way during the process. While they were hunting for the short cut they made a reported discovery of gold somewhere along their route -- a report that resulted quickly in the legend of the Blue Bucket mine.

This legend of the Blue Bucket mine is the reason a party of miners was



Index map of Oregon, showing transportation points along the Columbia River and gold-mining centers in Baker and Grant Counties

in eastern Oregon 16 years later when the Civil War was in progress. The miners had set out to look for the Blue Bucket, but ended up making a demonstrable discovery of gold in their own right. The place: Griffin Gulch, in what is now Baker County. The date: October 1861.

Display of the Griffin Gulch gold in Portland under a large banner saying "The First Gold Discovered in Eastern Oregon" gave rise to a cry that spread like fire in a strong wind. Another discovery of gold on Canyon Creek, in what is now Grant County, in 1862 and an almost simultaneous discovery of the yellow metal near Lewiston, Idaho, started a stampede of thousands of prospectors, miners, merchants, gamblers, and camp followers. Also in the same year, 1862, Congress passed the Homestead Act. Thus many farmers joined the rush, knowing that the mining industries would furnish a market for their products.

During the years immediately following the Griffin Gulch discovery, and indeed for a period of several decades thereafter, gold mining served to stimulate settlement and the establishment of a diversity of related business activities. For instance, even in 1862 steamers out of San Francisco heading north for Portland were sold out weeks ahead of time, and on one trip in that year the steamer "Brother Jonathan" landed more than a thousand people on the docks in Portland. Other shipping records show that 24,500 persons traveled up the Columbia River by boat in 1862. Another 22,000



About 800 people lived in Portland when this picture of Front Street was taken in 1852. Ten years later, when the gold stampede got under way, the population was around 2900, yet during the opening 3-year period of the gold rush it is estimated that 82,000 people passed through Portland en route to the gold fields in eastern Oregon and Idaho. (Oregon Historical Society photograph)



The portage at the Cascades in 1861 (now known as Cascade Locks) was 6 miles long. When steamers from Portland unloaded their up-river freight at the Cascades for transport over the portage during the gold rush, the mule-drawn flat cars were so slow that freight sometimes piled up for days before it could be loaded onto steamers above the rapids for transfer to The Dalles. (Oregon Historical Society photograph)

made the passage in 1863 and 36,000 more did so in 1864 -- all following the rainbow to the pot of gold.

The river boats belonged to the Oregon Steam Navigation Co. and operated originally between Portland and The Dalles, with a portage around the Cascade Rapids. Horse-drawn drays in Portland at times waited for 24 hours with baggage and supplies to be loaded on the up-river steamers, and so great was the traffic at Cascade Rapids that the portage was frequently blocked for days. In fact, steamer records show that 46,000 head of cattle were shipped up river along with additional thousands of horses, mules, hogs, and sheep during the first eight months of 1862.

At the outset, and with no competition, transportation costs on the river to The Dalles varied between \$40 and \$50 per ton. The passenger fare was \$20 with meals extra. The freight on a dozen brooms was a dollar and it was not until 1869, when a trail was opened through the Gorge for cattle and pack trains, that rates were greatly reduced.

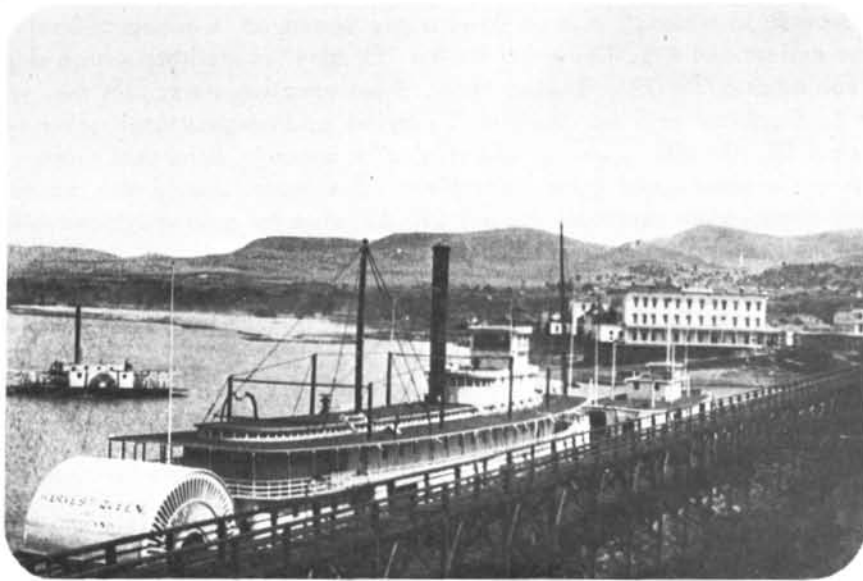
The Dalles was the original jumping-off place and the outfitting headquarters for all of what became known as the eastern Oregon gold belt -- an area that is today recognized as extending in a northeasterly direction from the vicinity of Canyon City on the west to the Snake River on the east. The Dalles also served as the "last stop" for the mining camps in Idaho. Nearly every group of men had to outfit there; and \$150 was the accepted price for a good mule during at least some of the period. Block-Miller & Co. became for a time the largest general merchandise store in the state and also the leading buyer of gold, averaging \$50,000 a month in purchases between 1861 and 1863.

People and supplies heading out from The Dalles to the Oregon gold fields followed one of two routes: either the military road or the Oregon Trail. Those headed for Upper Town (now Canyon City) and for Lower Town (now John Day) moved over the old military trail. In 1862 this was merely a blazed line over much of the route. However, by 1864 it became a road of sorts with a regular stage schedule and relay stops along the way over a distance of 177 miles. The stage trip was made in the fast time of 39 hours. Freight charges averaged around 55 cents a pound. The charge for the first few shipments of gold carried by pack train was equal to 3 percent of the weight of the shipment; that is, 3 ounces of gold for every hundred shipped.

The Oregon Trail served as the route from The Dalles to the gold mines in the Auburn area. By 1863 Wells-Fargo was operating along this route as well as out of Canyon City. However, during 1863 a 15-mile portage road was built around Celilo Falls, after which another group of boats was put in service to ply the upper waters of the Columbia and Snake Rivers as far as Lewiston, Idaho. Thus, in 1863, Umatilla Landing became the port for shipments to the Auburn area, shortening the distance overland from The Dalles to around 150 miles. Gillette (1904) reported that on just one trip up river from Celilo to Lewiston the steamer "Tenino" took in \$18,000 from passengers, freight, meals, and berths. By 1865 there were 14 steamers



This small engine, on display at the Union Station in Portland, was named "The Pony." It was built in San Francisco, then shipped to the Cascades in 1862 to help speed up the traffic over the portage. The rails were made of wood covered with strap iron. This was Oregon's first railroad. (Oregon Historical Society photograph)



The Dalles was the jumping-off place and last outfitting headquarters for the gold-seekers heading east, and the "Harvest Queen" pictured here was one of several boats plying the river between the Cascade portage and The Dalles. The famous Umatilla House is in the background. More money reportedly passed over its bar during this period than over any other bar in Oregon. Block Miller & Co., general hardware merchants, are said to have purchased an average of \$50,000 in gold each month over a period of 3 years. (Oregon Historical Society photograph)

operating up river from Celilo Falls and between there and Lewiston, Idaho, the traffic reportedly became so great that the boats paid for themselves in a few months.

Not all traffic flowed eastward during the 1860's. Instead, the surface and placer mining was funneling millions of dollars in gold westward over the trails to The Dalles and thence down river by boat to Portland and from there to San Francisco by either ocean steamer or overland express. Lindgren (1901, p. 717) estimated that Canyon Creek in Grant County produced between three to five million dollars a year up to 1865. Following this there was a gradual decline, as the richest of the easiest-to-mine placers became worked out. Even so, Raymond (1870, p. 224) estimated that production in 1865 averaged around \$22,000 a week, or more than one million dollars per year.

The flow of gold from the Auburn area presumably moved at a similar rate as that from Canyon City. In any event, the river steamer "Julia" carried \$100,000 worth of gold dust down river to Portland on April 28, 1862, and the "Carrie Ladd" followed with a \$175,000 shipment on May 20 and another worth \$200,000 on June 25.

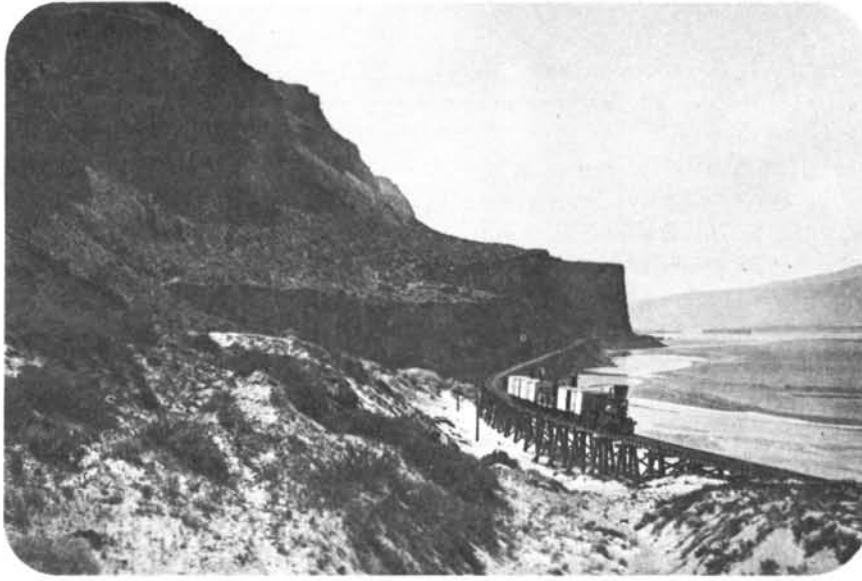
As for ocean-going steamers, other records show the "Tenino," another vessel with the same name as the river boat mentioned earlier, carried a \$200,000 gold shipment from Portland to San Francisco August 5, 1862. On October 27 of the same year the "Sierra Nevada" carried a half-million dollar shipment. During 1863, on three trips the "Sierra Nevada" transported an additional total of slightly more than \$931,000 worth of dust. The "Brother Jonathan," also on three trips, conveyed in excess of one million and on one trip, December 4, the "Oregon" is credited with a shipment valued at \$750,000. During 1864, these same steamers, plus the "John L. Stephens" and the "Pacific," carried gold cargoes totaling somewhat over \$3,100,000 in value, and it is to be borne in mind that these records are without doubt quite incomplete. The reader should also remember that these values represent the old \$20.67 price for gold which prevailed at the time, and not the present \$35 per ounce price.

Some gold, of course, traveled by overland stages to San Francisco; available records for shipments of bullion from Portland by way of Wells Fargo Express are as follows:

For 1864	\$6,200,000
For 1865	\$5,800,000
For 1866	\$5,400,000
For 1867	\$4,001,000

All told, from 1861 to 1867 the Northwest produced \$140,000,000 in gold, while during the same period California produced \$210,000,000, according to figures cited in "The History of Oregon" by Harvey Scott. This production went a long way towards bolstering the economy of our government during the Civil War.

(Text continued on page 118.)



The difficulties of the portage above The Dalles and past Celilo Falls were lessened by the construction in 1863 of the 15-mile narrow-gauge "portage" railroad. Built on the Oregon side of the Columbia River at a reported cost of \$50,000 per mile and in service until the 1880's, this railroad constituted an important link between the river boats plying the Columbia between Cascade Locks and The Dalles and those plying the up-river run from Celilo to Umatilla Landing and Lewiston. (Oregon Historical Society photograph)



The river steamer "Tenino," on the upper Columbia. With stops at Umatilla Landing, Wallula, and Lewiston, this vessel is credited with having taken in \$18,000 on one up-river trip in 1863. (Oregon Historical Society photograph)



Baker City as it appeared around 1867, or about one year after it became the county seat of Baker County. The large, unpainted building in the foreground served as the Court House and the repository of the county records removed from Auburn. With Auburn on the decline, Baker went on to become the Queen City in the eastern Oregon gold belt and the center for all heavy mining equipment. It even boasted a Chinatown population of more than 400 with its own stores and joss house before the end of the century. (Oregon Historical Society photograph No. 92)



Bourne, once known as Cracker City, is situated 6 miles north of Sumpter on Cracker Creek and is surrounded by some of the best mining property in the state -- the North Pole, E & E, Columbia, Golconda, and many other noted lode properties. Founded in 1890, Bourne soon had a population of 1500, with 2 hotels, 4 saloons, 7 general stores, 2 newspapers, 3 restaurants. Today there are only a few summer cabins and some buildings at the E & E mine. New exploration work has been under way in the area for several years; however, this, together with increasing world-wide pressure for a raise in the price of gold, may give the old town a new lease on life.



Miners and muckers at the Bonanza mine, 1894. Note use of wax candles and "single jacks" -- 4-pound hammers used with hand-held drill steel. Discovered in 1877 by Jack Haggard, the mine was sold for \$350 in 1879 to the Bonanza Mining Co. In 1892 it was purchased by the Geiser Brothers, who took out about \$400,000 before selling it to the Pittsburg Mining Co. for \$500,000. The mine was eventually worked to a depth of 1200 feet with a production estimated at approximately 1-3/4 million dollars at the old \$20.67 per ounce price of gold. Geiser, a town located at the mine, boasted a post office between July 15, 1898 and June 15, 1909.



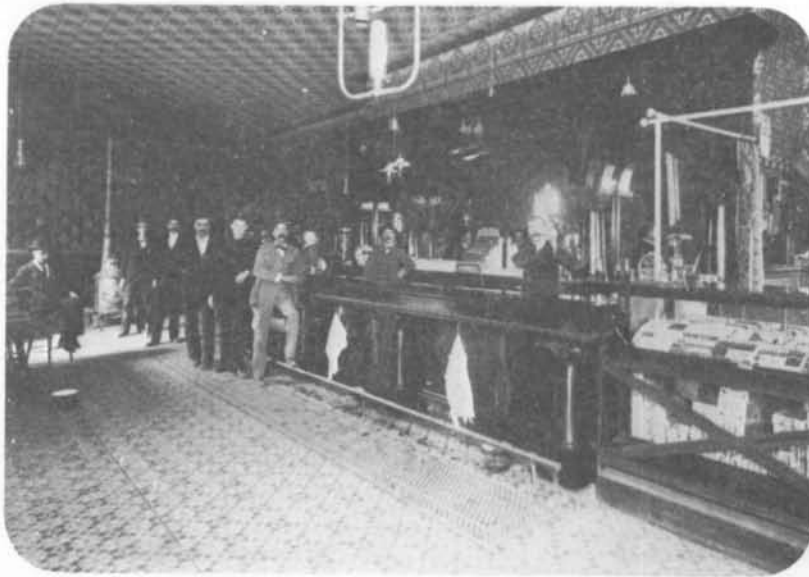
The old Potosi cabin near Windy Gap in the Greenhorn Mountains, one of the oldest mines in the Greenhorns. Nearby mines included the Ben Harrison, Morris, and the Bi-metallic. Picture taken in July, 1917. Notice snow in background and snow-broken shakes along eaves. Cabin is at an elevation of 7000 feet above sea level.



The small, but rich, Great Northern mine, "on the north side of Canyon Mountain" near Canyon City in Grant County, was discovered by Ike Guker, standing in the center. Man on right, standing on bank, is Frank McBean, old-time stage driver to Winnemucca. It is known that Guker let visitors pick nuggets and keep them. There was \$65,000 taken from this little hole. The mine was discovered as late as 1897.



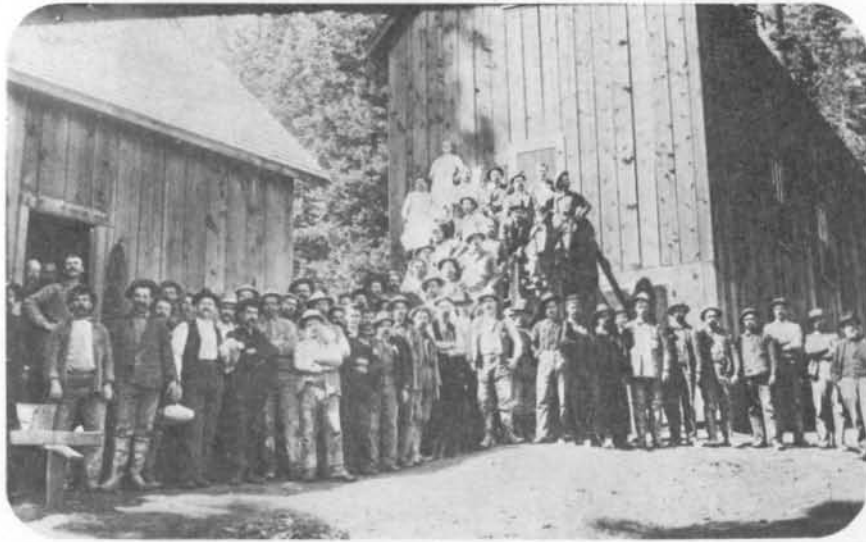
The narrow-gauge Sumpter Valley Railroad's Tipton station, located between Whitney and Austin, was an ore-shipping station for the mines around the town of Greenhorn during the fore part of the present century. The child in the picture is Dick Nokes, now assistant managing editor of the Oregonian.



The bar in the Gem Saloon in Sumpter -- a swanky establishment which featured a "lady orchestra" during the opening decade of the present century. When narrow-gauge rail service came in 1895, Sumpter was only a small mining camp. By 1904, however, the population reached 3500 with a payroll from the surrounding mines supporting two banks, 20 saloons, and the usual contingent of good managers, miners, and loggers along with the inevitable red-light district and its following of gamblers, shyster promoters and other fast-buck characters -- all looking for the "fickle goddess of fortune."



Saloons were not the only impressive establishments in the mining towns at the turn of the century. As the rich placer deposits became depleted, improved mining techniques made the source quartz lodes increasingly attractive targets for development; hence, wealthy investors and mining engineers came to the gold fields from all over the world. Their offices, often adorned with the latest of furnishings, were the headquarters for many planning sessions of far-reaching consequence.



The Cornucopia mine, located 10 miles northwest of Halfway in Baker County, was for a time one of the six largest gold mines in the United States. It also had the longest continuous run of any mine in Oregon. There were 36 miles of tunnels and a depth of 3000 feet. The estimated output is \$18,000,000 in combined gold, silver, copper, and lead. About 300 men were employed during its heyday of operation in the late 1930's. This picture obviously was taken earlier, if mustaches and bowlers are any criterion.



The dining room at the Cornucopia mine, sometime after 1922, when the company installed its generating plant. This mine was in operation about 50 years, and before the 8-hour day went into effect the men worked 10 hours a day, 7 days a week. Just think of the food that was served over these tables!



↑ Site of the old town of Auburn, located in Baker County south of Griffin Gulch. Nothing remains of Auburn today except fragments of old foundations. The June 1940 issue of "Oregon Mining Review" states that within 6 months after its creation the town had 700 cabins, many tents, and stores, hotels, and gambling houses. Between May and August of 1872, about 1700 mining claims were recorded in the vicinity. A post office was established Nov. 1, 1862. During that year Auburn became the seat of Baker County. If the report is true that Auburn had close to 6000 inhabitants in 1862-1863, it was for a time the largest town in Oregon.

↑ Henry Griffin, the man who started it all by discovering gold in Griffin Gulch in 1861, ended up buried in a cemetery located near Auburn, with his name misspelled on his headstone. (Oregon Historical Society photograph)

That gold mining remained an exceedingly important factor in our local economy for many decades is well known. What seems to be too often overlooked, however, is the part this mining played in the settlement of all of the country east of the Cascades. For instance, it was not until the year 1865 that Portland's population reached 6000 persons -- about the reported size of Auburn in the winters of 1862 and 1863. Had it not been for the market the mines created, the settlement of eastern Oregon would undoubtedly have occurred at a far slower rate.

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EAGLE ROCK QUADRANGLE, CROOK COUNTY, MAPPED

A geologic reconnaissance map of the Eagle Rock quadrangle in Crook County by A. C. Waters and R. H. Vaughan has been issued by the U. S. Geological Survey as Miscellaneous Geologic Investigations Map I-540. The quadrangle, bounded by lat. 44° 00' and 44° 15' and by long. 120° 30' and 120° 45', lies between Prineville and Post. It includes the new Prineville Reservoir and State Park on the Crooked River; however, these two features are not shown because the base map was made prior to their development. The map is in multicolor at a scale of one inch to the mile. An explanation column briefly describes the geologic units, which comprise Clarno and John Day Formations, Columbia River Basalt, Pleistocene lava flows, and Recent landslide materials and alluvium. Map I-540 is for sale by the U.S. Geological Survey, Federal Center, Denver, Colo. 80225 for 75 cents.

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METEORITE ARTICLES REPRINTED

"A Collection of Articles on Meteorites" has been issued by the Department as Miscellaneous Paper No. 11. The 39-page, illustrated booklet contains reprints of seven papers, many of them out of print, which have appeared in The ORE BIN in recent years. Six of the articles are by Dr. Erwin F. Lange, professor of general science at Portland State College and local authority on meteorites. Also reprinted is the report on the Port Orford Meteorite by E. P. Henderson, U.S. National Museum, and Hollis M. Dole, State Geologist. The booklet has been published to celebrate 1968 as "The Year of the Meteorite" for Oregon. During this year a concerted effort is being made throughout the State to locate unreported meteorites -- either in the field or in private collections -- in the interest of extending our knowledge of outer space.

Miscellaneous Paper No. 11 is for sale by the Department's offices in Portland, Baker, and Grants Pass for \$1.00.

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McBIRNEY TO HEAD UO GEOLOGY DEPARTMENT

Dr. Alexander R. McBirney, who has been in charge of the new Center for Volcanology at the University of Oregon, has been assigned the chairmanship of the Department of Geology. He fills the position of Dr. Lloyd W. Staples, who has headed the department for the past 10 years. Following a year of sabbatical leave, Staples will devote full time to teaching and research. Replacing Dr. McBirney as director for the Center for Volcanology will be Dr. Daniel F. Weill, associate professor of geology.

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GOLD AND SILVER IN OREGON



Issued by
State of Oregon Department of Geology and
Mineral Industries

"GOLD AND SILVER IN OREGON" PUBLISHED

"Gold and Silver in Oregon" has been published by the State of Oregon Department of Geology and Mineral Industries as Bulletin 61. Authors are Howard C. Brooks and Len Ramp, who have assembled a wealth of information that was previously scattered through a great number of published and unpublished records.

The bulletin reveals that between 1850 and 1965 Oregon produced about 5.8 million fine ounces of gold and 5.4 ounces of silver, worth a total of about \$210,000,000 at today's prices; probably 60 percent of the gold was mined before 1900. The information given in the bulletin is more than of historical interest, however. Should an improved economic climate for gold materialize, the volume will serve as a guide to future exploration and possible large-scale development.

Bulletin 61 is presented in three parts: Part I is a general discussion of the economics of gold and silver and a review of the production, history, and geologic occurrences of these metals in Oregon; Part II describes the principal gold-mining areas in eastern Oregon, particularly those in the "Gold Belt of the Blue Mountains"; and Part III presents the principal gold-mining areas in the Klamath Mountains and Western Cascades in western Oregon. In all, some 500 lode and placer mines and prospects are discussed.

The 337-page publication, the largest ever issued by the Department, contains selected mine maps, index maps of mining areas, tables and graphs of production statistics, and historical photographs. It is for sale by the Department at its Portland, Baker, and Grants Pass offices. The price is \$5.00.

WATER SUPPLY IN CLATSOP DUNES

"Availability of Ground Water in the Clatsop Plains Sand-dune Area, Clatsop County, Oregon" has been issued as an open-file report by the U.S. Geological Survey Ground Water Division in cooperation with Clatsop County. The author, F. J. Frank, reports that the extensive area of low dunes between Fort Stevens and the Necanicum River contains a large body of good quality ground water. Nearly 80 percent of the annual precipitation infiltrates into the dune sand, and test wells yield 100 gallons per minute. The dune sand is about 75 feet thick and rests on a platform of Astoria Formation. Geologic and hydrologic maps are included in the report. A copy is on file at the Oregon Department of Geology and Mineral Industries library in Portland.

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OCEAN FLOOR MAPPED OFF OREGON

A new map, covering 14,000 square miles of sea bottom off the Oregon coast, has been published by the Coast and Geodetic Survey of the U. S. Department of Commerce.

The map's coverage extends 100 miles offshore for a 140-mile stretch of coast between Heceta Head and Tillamook Head. Depths shown range from a few feet near the coastline to 9800 feet about 80 miles west of Heceta Head. Among the prominent underwater features delineated are Heceta Bank, about 35 miles offshore, rising to within 150 feet of the ocean surface, and Stonewall Bank, about 17 miles from the coastline and about 78 feet below the surface.

The Map (1308N-22) may be purchased from the Coast and Geodetic Survey, 121 Customhouse, San Francisco 94126, for 50 cents.

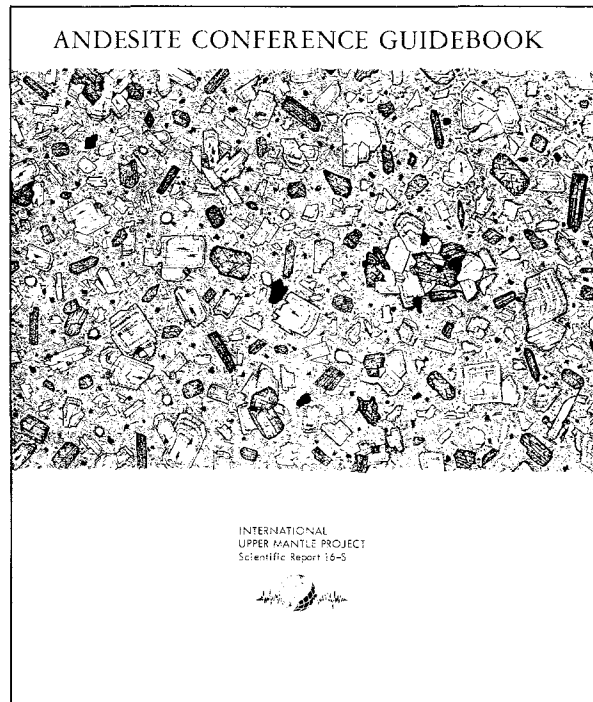
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BAKER COUNTY MINING NEWS

Copper prospects in the general vicinity of Sparta are being investigated by two companies, Cyprus Mining and Bear Creek Explorations, a subsidiary of Kennecott. Both companies are conducting diamond-drilling programs to test the feasibility of establishing open-pit operations. The old mining properties at Bourne are being explored by Omega Mines. Omega has been on the ground for the past three years and is currently driving new exploratory headings, opening up old workings, and diamond drilling.

The Steinmetz-Underwood placers on Pine Creek above the town of Halfway are being reopened, and a bedrock channel cut to drain the deep placer ground which has been plagued with water in the past.

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ANDESITE GUIDEBOOK AVAILABLE

A guidebook designed primarily for the Andesite Conference which was held in the Bend region June 30 to July 5 under the sponsorship of the Upper Mantle Committee, the Center for Volcanology, and the State of Oregon Department of Geology and Mineral Industries, is now available to the public.

The Andesite Conference Guidebook is made up of a series of papers by a number of contributors. It includes two field-trip logs, one to the Santiam-McKenzie area by E. M. Taylor and the other to Newberry Caldera by M. W. Higgins and A. C. Waters. An article by W. S. Wise describes the geology of Mount Hood volcano. For the Crater Lake area there are three reports -- one on the volume of ash from Mount Mazama, by Howel Williams and Gordon Gofes; another on compositional variations of the climactic eruption, by A. R. McBirney; and the third on aeromagnetic and gravity surveys of H. R. Blank, Jr. The final article is a summary of the petrochemistry of Cascade andesite volcanoes in general, by A. R. McBirney. The cover picture is a microdrawing of andesite from the highest peak of Mount Mazama.

The 107-page volume is abundantly illustrated by photographs and colored maps. It was published by the Department as Bulletin 62 and is for sale at our offices in Portland, Grants Pass, and Baker. The price is \$3.50.

WILKINSON MINERAL COLLECTION RECEIVED

Leonard J. Wilkinson, Prineville, Oregon, has donated an outstanding collection of more than 100 kinds of minerals, fossils, and rocks to the Oregon Department of Geology and Mineral Industries. The specimens are from many places in the United States, and some are from foreign countries. All are of prime quality and represent some of the finest material available from the source region. Among the group are fossil ferns, trilobites, fish, a variety of polished agates, large crystals of barite, selenite, and sphalerite, a rare specimen of native copper and silver, and many exceptionally fine examples of minerals such as purpurite, mariposite, kroehnkite, and cornwallite.

The collection is housed at present in two display cases in the Department's museum in Portland.

In addition to the display specimens, Mr. Wilkinson gave the Department his library of reference books on rocks, minerals, gems, fossils, and general geology. This large group of books and pamphlets will be arranged according to subject matter and parts of it will be available in the fall for loan to rock clubs and other interested groups.

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AMMONITE PAPER AVAILABLE

"Lower Jurassic (Pleinsbachian and Toarcian) Ammonites from Eastern Oregon and California" by R. W. Imlay has been issued as Professional Paper 593-C by the U.S. Geological Survey. The Oregon fossils described are from the Nicely, Suplee, and Snowshoe Formations in east-central Oregon and from the Hurwal Formation in the Wallowa Mountains. The succession of ammonite faunas is compared with other Pacific Coast and European sequences.

Professional Paper 593-C has 51 pages plus 9 plates of photographs. It is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402. The price is 65 cents.

* * * * *

EARL MOLLARD DIES

Earl S. Mollard of Myrtle Creek, Western States Representative for Hanna Mining Co. and formerly general manager of the Hanna Nickel operation at Riddle, died May 31. Mollard was appointed to the Governing Board of the Department of Geology and Mineral Industries in April 1961 and resigned a year later when he was transferred to Hanna's head office in Cleveland, Ohio.

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GOLD RESERVES COMMISSION ESTABLISHED

Among bills introduced in the U.S. Senate last month is S. 3506 to establish joint commission on gold reserves, by Sen. Tower of Texas, Committee on Banking and Currency. It would authorize the President to establish a commission composed of the Secretary of the Treasury as chairman, the Secretary of Commerce, The Director of the Budget Bureau, six Senators, six Representatives, and eight public members, none of whom shall be associated or identified with the gold industry, to study U.S. gold policies. (American Mining Congress Legislative Bulletin, June 7, 1968.)

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RECENT EPOCH CHANGED TO HOLOCENE

The Geologic Names Committee, U.S. Geological Survey, headed by George V. Cohee, adopted the term "Holocene" in place of "Recent" at its January 23, 1968 meeting. The Survey gives Holocene a series rank equal to that of Pleistocene. The use of Holocene, meaning "wholly recent", was endorsed in 1967 at the annual meeting of the American Commission on Stratigraphic Nomenclature, and the term has already been adopted officially by various geological organizations. The change is desirable because of the wide use of Holocene in Europe and the ambiguity arising from the word "recent."

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OIL DEEPENING PERMIT ISSUED

The Department issued Deepening Permit No. 60-D to R. F. Harrison of Seattle, Wash. on May 27, 1968. Harrison will deepen the Central Oils, Inc. "Morrow 1" located in the SW $\frac{1}{4}$ sec. 18, T. 12 S., R. 15 E., Jefferson County. The hole was originally drilled to a depth of 3300 feet in 1954 by Northwestern Oils, Inc. Central Oils, Inc. was formed after the first corporation was dissolved. Central Oils, Inc. took out a deepening permit in 1966 but no new footage was drilled. Harrison will deepen the hole to more than 5000 feet to test Mesozoic marine formations.

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McCALL APPOINTS BRISTOL TO GEOLOGY BOARD

Governor Tom McCall appointed Mr. Fayette I. Bristol to the Governing Board of the Department of Geology and Mineral Industries April 15, 1968. Mr. Bristol is president of the Bristol Silica Co., Rogue River, Oregon.

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AVAILABLE PUBLICATIONS

(Please include remittance with order. Postage free. All sales are final and no material is returnable. Upon request, a complete list of the Department's publications, including those no longer in print, will be mailed.)

BULLETINS

2.	Progress report on Coos Bay coal field, 1938: F. W. Libbey	\$ 0.15
8.	Feasibility of steel plant in lower Columbia River area, rev. 1940: Miller	0.40
26.	Soil: Its origin, destruction, preservation, 1944: Twenhofel	0.45
33.	Bibliography (1st supplement) of geology and mineral resources of Oregon, 1947: Allen	1.00
35.	Geology of Dallas and Valsetz quadrangles, Oregon, rev. 1963: Baldwin	3.00
36.	(1st vol.) Five papers on Western Oregon Tertiary foraminifera, 1947: Cushman, Stewart, and Stewart	1.00
	(2nd vol.) Two papers on Western Oregon and Washington Tertiary foraminifera, 1949: Cushman, Stewart, and Stewart; and one paper on mollusca and microfauna, Wildcat coast section, Humboldt County, Calif., 1949: Stewart and Stewart	1.25
37.	Geology of the Albany quadrangle, Oregon, 1953: Allison	0.75
44.	Bibliography (2nd supplement) of geology and mineral resources of Oregon, 1953: Steere	1.00
46.	Ferruginous bauxite deposits, Salem Hills, Marion County, Oregon, 1956: Corcoran and Libbey	1.25
49.	Lode mines, Granite Mining Dist., Grant County, Ore., 1959: Koch	1.00
52.	Chromite in southwestern Oregon, 1961: Ramp	3.50
53.	Bibliography (3rd supplement) of the geology and mineral resources of Oregon, 1962: Steere and Owen	1.50
56.	Fourteenth biennial report of the State Geologist, 1963-64	Free
57.	Lunar Geological Field Conference guide book, 1965: Peterson and Grah, editors	3.50
58.	Geology of the Suplee-Izee area, Oregon, 1965: Dickinson and Vigrass	5.00
59.	Fifteenth biennial report of the State Geologist, 1964-1966	Free
60.	Engineering geology of the Tualatin Valley region, Oregon, 1967: Schlicker and Deacon	5.00

GEOLOGIC MAPS

	Preliminary geologic map of Sumpter quadrangle, 1941: Pardee and others	0.40
	Geologic map of the St. Helens quadrangle, 1945: Wilkinson, Lowry & Baldwin	0.35
	Geologic map of Kerby quadrangle, Oregon, 1948: Wells, Hotz, and Cater	0.80
	Geologic map of Albany quadrangle, Oregon, 1953: Allison (also in Bull. 37)	0.50
	Geologic map of Galice quadrangle, Oregon, 1953: Wells and Walker	1.00
	Geologic map of Lebanon quadrangle, Oregon, 1956: Allison and Felts	0.75
	Geologic map of Bend quadrangle, and reconnaissance geologic map of central portion, High Cascade Mountains, Oregon, 1957: Williams	1.00
	GMS-1 - Geologic map of the Sparta quadrangle, Oregon, 1962: Prostka	1.50
	GMS-2 - Geologic map, Mitchell Butte quad., Oregon, 1962: Corcoran et al.	1.50
	GMS-3 - Preliminary geologic map, Durkee quad., Oregon, 1967: Prostka	1.50
	Geologic map of Oregon west of 121st meridian (over the counter)	2.00
	folded in envelope, \$2.15; rolled in map tube, \$2.50	
	Gravity maps of Oregon, onshore and offshore, 1967: [Sold only in set] flat	2.00
	folded in envelope, \$2.25; rolled in map tube, \$2.50	

[Continued on back cover]

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Available Publications, Continued:

SHORT PAPERS

2.	Industrial aluminum, a brief survey, 1940: Leslie L. Motz	\$ 0.10
18.	Radioactive minerals the prospectors should know (2nd rev.), 1955: White and Schafer	0.30
19.	Brick and tile industry in Oregon, 1949: J.E. Allen and R.S. Mason	0.20
20.	Glazes from Oregon volcanic glass, 1950: Charles W. F. Jacobs	0.20
21.	Lightweight aggregate industry in Oregon, 1951: Ralph S. Mason	0.25
23.	Oregon King Mine, Jefferson County, 1962: F.W. Libbey and R.E. Corcoran	1.00
24.	The Almeda Mine, Josephine County, Oregon, 1967: F. W. Libbey	2.00

MISCELLANEOUS PAPERS

2.	Key to Oregon mineral deposits map, 1951: Ralph S. Mason	0.15
3.	Facts about fossils (reprints), 1953	0.35
4.	Rules and regulations for conservation of oil and natural gas (revised 1962)	1.00
5.	Oregon's gold placers (reprints), 1954	0.25
6.	Oil and gas exploration in Oregon, rev. 1965: Stewart and Newton	1.50
7.	Bibliography of theses on Oregon geology, 1959: H. G. Schlicker	0.50
7.	(Supplement) Bibliography of theses, 1959 to Dec. 31, 1965: M. Roberts	0.50
8.	Available well records of oil & gas exploration in Oregon, rev. 1963: Newton	0.50
10.	Articles on Recent volcanism in Oregon, 1965: (reprints, The ORE BIN)	1.00

MISCELLANEOUS PUBLICATIONS

	Oregon mineral deposits map (22 x 34 inches), rev. 1958	0.30
	Oregon quicksilver localities map (22 x 34 inches) 1946	0.30
	Landforms of Oregon: a physiographic sketch (17 x 22 inches), 1941	0.25
	Index to topographic mapping in Oregon, 1961	Free
	Index to published geologic mapping in Oregon, 1960	Free
	Geologic time chart for Oregon, 1961	Free

OIL and GAS INVESTIGATIONS SERIES

1.	Petroleum geology of the western Snake River basin, Oregon-Idaho, 1963: V. C. Newton, Jr., and R. E. Corcoran	2.50
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