UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SELECTED BIBLIOGRAPHY OF EPITHERMAL
PRECIOUS METAL MINERALIZATION

by


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This selected bibliography of epithermal precious metal mineralization was prepared for a workshop on hydrothermal systems that was part of the Symposium on Mineral Deposit Modeling, held December 5-14, 1985, in the Philippines. The bibliography compiles many of the recent references on epithermal mineralization and includes many diverse published studies. We have taken a liberal view of the term "epithermal mineralization" and have selected studies that focused on understanding processes in epithermal systems. We have included related experimental, isotopic, fluid inclusion, and petrological studies and have excluded massive-sulfide and remote-sensing investigations. Studies of geothermal systems are included because of their analogy to epithermal systems. Most of the references are in English and are from the last ten years of world literature. Some classic descriptions of epithermal ore deposit districts are included also with a brief description of the districts' significance. The bibliography was improved with reviews by Daniel O. Hayba and Daniel R. Shawe.

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Araneda, G. R., 1982, El Indio, Yacimiento de Oro, Plata y Cobre, Coquimbo, Chile: III Congreso Geologico Chileno, Concepcion, Chile.


Averitt, Paul, 1945, Quicksilver deposits of the Knoxville district, Napa, Yolo, and Lake Counties, California: California Journal of Mines and Geology, Quarterly Chapter of State Mineralogist's Report 41, p. 65-89. (Good general description of the setting of the McLaughlin gold deposit—discovered much later.)


Becker, G. F., 1882, Geology of the Comstock lode and the Washoe district: U.S. Geological Survey Monograph 3, 422 p. (Historically one of the most significant USGS reports about the earliest detailed description of a western mining district; also much detail on epithermal Ag-Au ores and their geologic setting, from first hand observation in a world-class precious metal district.)


Bonham, H. F., Jr., 1980, Silver producing districts of Nevada, 2nd ed.: Nevada Bureau of Mines Geologic Map 33, scale 1:1,000,000.

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Browne, P. R. L., 1971, Mineralization in the Broadlands Geothermal Field, Taupo Volcanic Zone, New Zealand: Society of Mining Geology of Japan Special Issue 2, p. 64-75.


Cameron, M., Bagby, W. C., and Cameron, K. L., 1980, Petrogenesis of voluminous mid-Tertiary ignimbrites of the Sierra Madre Occidental, Chihuahua, Mexico; Contributions to Mineralogy and Petrology, v. 74, p. 271-284.


Criss, R. E., Ekren, E. B., and Hardyman, R. F., 1984, Casto ring zone: A 4500 km$^2$ fossil hydrothermal system in the Challis volcanic field, central Idaho; Geology, v. 12, no. 6, p. 331.


Foley, N. K., Bethke, P. M., and Rye, R. O., 1982, A reinterpretation of \( D_{H2O} \) values of inclusion fluids in quartz from shallow ore bodies [abs.]: Geological Society of America Abstracts with Programs, v. 14, no. 7, p. 489.


Gianella, V. P., 1936, Geology of the Silver City district and the Southern portion of the Comstock lode, Nevada: Nevada University Bulletin, v. 30, no. 9, 105 p. (More details on the Comstock, particularly the south part.)


Hardee, H. C., 1982, Permeable convection above magma bodies; Tectonophysics, v. 84, no. 2-4, p. 179.


Heald-Wetlaufer, P., and Plumlee, G. S., 1984, Significance of mineral variations in time and space along the Bulldog Mountain vein system with respect to the district-wide hydrology, Creede district, Colorado [abs.]: Geological Society of America Abstracts with Programs, v. 16, no. 6, p. 535.


Joralemon, Peter, 1951, The occurrence of gold at the Getchell mine, Nevada: Economic Geology, v. 46, p. 267-310. (Good geologic detail indicating Tertiary age of gold mineralization.)


Keith, J. D., 1979, Miocene volcanism hosting porphyry-molybdenum and epithermal vein mineralization, southwestern Utah and Nevada [abs.]: Geological Society of America, Abstracts with Programs, v. 11, p. 455.


Kleinhampl, F. J., and Ziony, J. I., 1984, Mineral resources of northern Nye County, Nevada: Nevada Bureau of Mines and Geology Bulletin 99B, 243 p. (Good descriptions of many lesser known, mostly small, epigenetic Au-Ag districts such as Jefferson, Athens, etc.)


Lang, B., 1979, Base metals-gold hydrothermal ore deposits of Baia-Mare, Romania: Economic Geology, v. 74, p. 1336.

Lawrence, E. F., 1963, Antimony deposits of Nevada: Nevada Bureau of Mines Bulletin 61, 248 p. (Valuable background information on several gold-bearing epithermal Sb mines and districts. Data led Freeport and FMC into Independence Mountains where they discovered Jerrett Canyon gold deposits.)


Lodder, W., 1966, Gold-alunite deposits and zonal wallrock alteration near Rodalquilar, southeast Spain: University of Amsterdam, Geological Institute of Mededeel, no. 318, 95 p.


Mann, A. W., 1984, Mobility of gold and silver in lateritic weathering profiles: Some observations from western Australia: Economic Geology, v. 79, p. 38-49.


Mills, B. A., 1982, Geology of the Round Mountain Gold Deposit: American Mining Congress International Mining Show, Las Vegas, Nevada; Session Papers, p. _____.


Nolan, T. B., 1935, The underground geology of the Tonopah mining district, Nevada: Nevada University Bulletin 29, 49 p. (The two Nolan publications provide good detailed descriptions of the ores and their setting based on first hand observation.)


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Umpleby, R. W., 1910, Geology and ore deposits of Republic mining district: Washington Geological Survey Bulletin 1, 67 p. (1st Washington State report on an ore district and includes details on the State's premier gold producer in an epithermal deposit.)


