

THE NEW METALLOGENETIC MAP OF AUSTRIA

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The new "*Metallogenetic Map of Austria 1: 500 000 Including Industrial Minerals and Mineral Fuels*" has been compiled by the Committee for Mineral Deposits Research of the Austrian Mining Association (BVÖ, Bergmännischer Verband Österreichs) in close cooperation with the Austrian Academy of Sciences (WEBER, L. ed. 1997 a). The extremely complicated preparation of the map, which has been drawn digitally, has been carried out by the Geological Survey of Austria. An explanatory text ("*Handbuch der Lagerstätten der Erze, Industriemineralien und Energierohstoffe Österreichs*" WEBER, L. 1997 b) was also printed by the Geological Survey of Austria.

This metallogenetic map is the first of its kind in Austria. When the available maps proved to be insufficient it was inevitable to draw an up to date geologic-tectonic base map. Furthermore the numerous information concerning mineral deposits had to be checked carefully to build a reliable data base. For compiling this map the results both nationwide aeromagnetic survey and streamsediment geochemistry have been used.

Metallogenetic maps should emphasize connections between geology, tectonic and mineral deposits. Mineral deposits of similar metal content, similar genesis, which show a strong link to a particular geologic and or/tectonic unit, are defined as a metallogenetic district. As a matter of fact such maps may be of main interest for the mining industry as a decision basis for prospecting or exploration programs, for geoscientists to clarify various problems as well.

In the map the particular mineral deposits/occurrences are documented as followed:

- shape of deposit in symbols (without any genetic interpretation):
stratiform/lenticular - veins/lodes - disseminated/stockwork - irregular.
- orientation:
symbols of stratiform and vein deposits are arranged in the map in respect to the strike direction.
- mineral commodity:
the deposits were classified in respect to their major contents and distributed to iron and steel alloying metals - base metals - special metals - precious metals - industrial minerals - mineral fuels.
- dimension:
is only indicated as "major" (= actually or until last time mined) or "minor" deposits.
- minerogenetic districts:
frequency of deposits/occurrences is an important additional information to define particular minerogenetic districts. Therefore in contrast to other international metallogenetic maps it was attempted to include not only some important deposits in the map but also to define optically the about 150 minerogenetic districts by the frequency of their mineral occurrences. Contour lines were only drawn where it was required for a good readability of the map.
- position and name of deposits/occurrences:
a list of the nearly 3000 mineral occurrences, tabulated alphabetically and by map sheets of the official maps (ÖK), allowing to identify the locations on the map is added in pocket together with the maps.

The preparation of a CD-Rom is the next stage in the documentation of Austrian mineral deposits/occurrences. This electronic information system should be available at the beginning of 1999. It will provide the metallogenetic map, the entire data base for approx. 3000 mineral deposits/occurrences which can be read back by mouse click, and 28.000 sample sites and values of 35 analyzed elements of Austrian streamsediment geochemistry.

References:

- WEBER, F. (ed.): *Metallogenetische Karte von Österreich 1: 500.000 unter Einbeziehung der Industriemineralien und Energierohstoffe*. Geol. Survey, Vienna, 1977 a.
- WEBER, F. (ed.): *Handbuch der Lagerstätten der Erze, Industriemineralien und Energierohstoffe Österreichs*.- Arch. Lagerst.-forsch. Geol. B.-A., 19: 607 pp., Vienna, 1997 b.