

## **GEOTOPE - RESEARCH IN AUSTRIA: A HOLISTIC APPROACH**

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Although the history of geological research in Austria dates back to the 18th century, systematic studies of the geological heritage started in 1995. One of the most important results of systematic Geotop-research in Austria is the affinity of geo- and biotopes. More than 640 legally protected natural monuments do not represent the whole range of all geological features which are typical for the geology of Austria. These sites are mostly protected because of their outstanding morphology and/or because of their importance for water resources (canyons, waterfalls...). Only a few of them are protected because of scientific importance. But nearly all show in an excellent way the interactions of geology and biology. From this point of view the terms Biogeotope and Geobiotope were introduced to show the close relationship between the biosphere and the geosphere. From the experiences of many amphibious biotopes in geologically important (geotope!) abandoned clay-pits, the term Geobiotope resulted: Geobiotopes are biotopes which also have the characteristics of geotopes. They result from geotopes (natural or artificial) which provide the supposition for biotopes. Geobiotopes characteristically show features of the animate and inanimate nature and especially their reciprocal dependence and mutual effects. Looking at numerous organic build ups in the geological record, which have been biotope in the geological past, Biogeotopes were introduced: Biogeotopes are geotopes which have been in the geological past biotopes. As a consequence of this arises a new chance to cooperate with biologists. This challenge shows up new ways for better understanding the various interactions between geology and biology.