

THE PONDS AND THE RESERVOIRS AS CLIMATIC FACTORS IN THE SUDETEN LANDS

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Before the Hussite Wars fishermen are mentioned as a separate occupational group in some cities of the Sudeten lands near to which waters would hardly be encountered today that would justify such an occupation. A comparison of historical maps from the 18th century and the present clearly indicates a change in the pond areas of the Sudeten lands, and this is proven by the history of the ponds in this geographical area. The drainage of the ponds during the 19th century can be traced above all to four reasons: 1. the rise in grain prices, 2. the flourishing of improved sheep-breeding, 3. the drop in fish prices, and finally 4. the increase in sugar-beet cultivation. This alteration of the pond areas resulted in a change of evaporation and with it also in a change in the local precipitation conditions, which in turn influenced the structure of the landscape. The appended tables show clearly that the drainage of the ponds resulted in a tendency toward the development of steppes, corresponding to an increase in the air temperature.

This change of the pond areas can also be detected in the amount of river drainage, namely in the "apparent" periods, which for the most part reflect human intervention in the regulation of the water supply. The index of aridity best expresses the relation between precipitation and air temperature. It was calculated for 122 stations and depicted cartographically. Next to these pond areas, which more or less go back to mediaeval fish hatcheries, there appear in recent times reservoirs in the course of the increased industrialization of these lands. The changeable character of the water volume of the Moldau-Elbe and the March was a particular obstacle for the extensive industrialization of the Sudeten lands after 1945. In order to meet this obstacle, water reservoirs were laid out, representing a water area of 15,252 hectares with a water capacity of 1,963 million cubic meters. Although they comprise only one-fourth of the pond areas, they store almost five times as much water as these did.

The development of steppes introduced in the 19th century by the drainage of the ponds is being restricted in recent times by the establishment of reservoirs in the Sudeten lands, or is being perhaps completely elimi-

nated. Although the change from the oceanic and Pannonian-Continental climate in the Sudeten lands was intensified up to now, it has probably been rather balanced out through these dams.