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# The synantropic landscape history of the Šumava Mountains (Czech side) Historie synantropní krajiny na české straně Šumavy

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### Abstract

Full understanding of the human colonization and landscape development of the Sumava region (Czech side) requires the adoption of a suitable geographical countryside division. This paper aims at definition of several altitudinal historical zones, reflecting different kinds of human impact on the forest. Zone I is not represented in the Sumava region, but it is necessary to notice this zone for the completeness' sake; it is represented by the Bohemian and Bavarian lowland areas with continual prehistoric agricultural tradition. Zone II (Fig.1) has been defined by the presence of rural prehistoric and early mediaeval human groups, limited however by countryside settlement discontinuity. The boundary of Zone II was demarcated according to the presence or absence of prehistoric and early mediaeval archaeological finds. Zone II is represented in the Sumava foothills where the inhabitants changed the primeval holocene forest into an open landscape. Since that time, the landscape has been dotted by scattered islands of woods. Zone III could be defined as a landscape belt strongly influenced by upper mediaeval colonisation. In order to define the boundary of Zone III, written sources dating from before the Czech Hussite War (1420) have been used; these sources are the first historical records of the existence of these villages. The forest here is more compact and less affected by human activity. Finally, the highest part of the Sumava Mts. (zone IV) was occupied later, namely in the 18th and 19th century, following some pre-industrial and industrial activity. All the zones were crossed by interregional trade paths which have apparently existed here since the Bronze Age (2000 BC). The period of greatest activity along these trade paths was connected with the mediaeval salt trade between the Alpine region and Bohemia. Natural forest was long affected by pasture, cutting of wood and glass making activity, which gradualy resulted in dramatic reduction of several dominant tree species, namely of beech and fir.

Key words: landscape archaeology, settlement zone, forest, clearance, human impact, trade paths, secondary grassland

### Introduction

Recent efforts of natural scientists aim at understanding the secondary synantropic grasslands of the Sumava Mts. Archaeology and historical geography can provide usefull information about the forest developement, as well as the formation of the cultural landscape. The following paper offers a short outline of a larger study which was published in a regional historical journal (Benes J. 1995). The article defines the main archaeological and historical zones of the Sumava mountains (Czech side) for both natural and social scientific purposes.

# Reconstructing settlement zones

The landscape of the Sumava Mts. and Sumava Mts. foothills can be grouped into three main settlement zones (Fig.1., II-IV) defined after the archaeological records, historical

written sources and old cartographic data. Each zone reflects a different kind of human occupation and land use history. Zone I, represented by the Bohemian and Bavarian lowlands with their probably unbroken prehistoric and early mediaeval settlement tradition, could be termed the "old settlement area". This type of lowland area is not represented here, but we note it for the sake of completness. Zone II comprises the foothills of the Šumava Mts. (Fig.1). Archaeological data which have been used here (Fridrich 1962, Benes A. 1980, Fröhlich & Michálek 1989, Benes J. & Parkman 1994) show a rich prehistoric and early mediaeval landscape colonization. The archaeological record in Zone II seems to indicate, however, a discontinuity model in settlement history (before cca 1200 AD) in contrast to the settlement continuity of Zone I.

Zone III comprises the higher parts of the Šumava foothills and the lower part of the highland area. The typical land use of this zone originated during the period of high mediaeval colonization. Most of the Šumava highland area is contained within the Zone IV which is characterized by large closed-forest areas and clearings of secondary grasslands.

These zones reflect different kinds of human participation in the process of deforestation. All of them were also crossed by several interregional trade paths (Kubü & Zavrel 1994) which apparently existed here since the Bronze Age (2000 BC). It is necessary to distinguish two different kinds of synanthropic impact: (1) areal impact affecting the whole landscape zone, and (2) linear impact affecting only the margins along the trade paths.

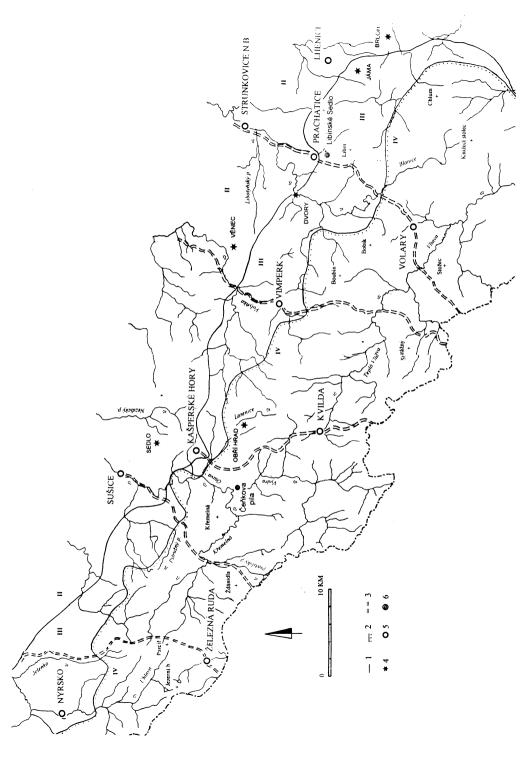
Zone I: Covering some Bohemian and Bavarian lowland areas, this zone is called by Czech archaeologist "the settlement zone of traditional occupation". Such areas are characterized by continual development from the neolithic (cca 5000 BC) to the high mediaeval period. The nearest example of such an area can be found in the Danubian floodplain, between Regensburg and Passau. Zone I is not represented in the Sumava region but it is necessary to note it for the sake of completness.

Zone II: This zone is represented by areas which are indicated by discontinual landscape occupation during the whole prehistoric and early mediaeval periods. A typical feature of this zone is the presence of a narrow spectrum of archaeological cultures. Occupation here was determined especially by climatic constraints, and its character was unstable, oscillating according to demographic and economic conditions. The area of Sumava (Czech side) Zone II encompasses the xerothermic part of the Vltava area (Lipno), the western part of the Lhenice valley, and the southern Vitějovice basin. The border line between Zone II and Zone III follows the southern edge of the Prachatice hollow, the southern part of the Čkyně valley, Kašperské Hory, the southern area of Sušice, Chotěšov and Janovice nad Úhlavou. The margin of this zone is probably indicated by a chain of prehistoric and early mediaeval hillforts or enclosures (Fig.1, stars). They seem to represent the frontier of the forest and cultural landscape in period until 1200 AD (the beginning of high mediaeval colonization).

Zone III: In order to define the boundary of Zone III, written sources dating from before the Czech Hussite War (1420) have been used. These sources are the first historical records of the existence of villages. This zone is characterized by upper mediaeval deforested land-scape formations which were used mainly for agriculture. Another activity evidenced in the

Fig. 1. – Map of the Sumava Mts. (Czech side) indicating the historic settlement zones, hillforts, burial fields and the main routes of the trade paths. Key: 1 – boundary of zones I and II, 2 – boundary of zones III. and IV, 3 – routes of trade paths, 4 – hillforts, 5 – important towns and villages, 6 – barrow fields

Obr. 1. – Mapa české strany Šumavy s vyznačenými oblastmi historického osídlení, hradišti, pohřebišti a hlavními trasami obchodních stezek. Vysvětlivky: 1 – hranice zón I a II, 2 – hranice zón III a IV, 3 – trasy obchodních stezek, 4 – hradiště, 5 – významnější města a vesnice, 6 – mohylové hroby



archaeological record here was the mediaeval mining of gold, which resulted in the appearence of typical hummocks along the creeks. The zone also contains a few cases of settlements and burial or ritual sites, especially along the trade paths. Its border line leads from the village of Horní Planá, follows the eastern Chlum foothills, through the village of Zbytiny, Mlynářovice, Šumavské Hoštice, Klášterec, Stachy, Lídrovy Dvory and Rejštejn. The border line goes on between the villages of Annín and Dlouhá Ves, turns southwards at Hartmanice village, Zámyšl, Javorná and Jesení, and terminates to the south of Matějovice, Stará Lhota and Nýrsko town (Fig.1, sign 2).

Zone IV: The character of this zone is early modern. The developement of this zone was associated with glass works and wood clearance activity. Zone IV was the last area of Sumava to be settled. Although further differentiation is possible, the zone seems to be relatively homogeneous. The peak of deforestation is markedly visible in the 18th century.

# The synantropic landscape developement of the Sumava Mts.

Developement of the cultural landscape of the Šumava Mts. consists of several periods. The first marked occupational wave appeared in the Mesolithic (Vencl 1989) when much of the Šumava Mts. was densely forested. At this time, the southeastern xerothermic part was used by groups of hunter-gatherers. Any greater human impact on the forest would seem to be rather unlikely in the Mesolithic Period (Jankovská 1994).

The holocene synanthropic processes of deforestation which radically influenced Bavarian and Bohemian agricultural lowland areas since the neolithic, did not reach the forest of the Sumava Mts. We only suppose that small cleared areas existed along the trade and communication trails which existed from the Early Bronze Age around 2000 BC (Kubù & Zavrel 1994, Benes J. 1995). On the other hand, we have evidence of a chain of several Iron Age enclosures and hillforts (500 – 0 BC) which seem to mark the border of the occupied land-scape during the Iron Age. The location of these hillforts indicates symbolic and ritual functions rather than economic and residential ones. The extent of the penetration of Late Iron Age farmers within the Sumava forest should not be exaggerated. For example, we have no evidence of any prehistoric gold mining activity in the upper settlement Zones III and IV. All the recorded features here date from the high mediaeval to the early modern periods (Kudrenkac 1991).

Large scale clearance activity has occured in the Šumava highlands since the high mediaeval colonization period (12th century). This period is characterized by appereance of specific islands of deforestation, for instance around Volary town and Kvilda (Benes J. 1995). During the mediaeval period Zone III. was colonized and partialy deforested. The last, but most extensive epoch of deforestation dates from the period of demographic recovery following the severe loss of population du ring the thirty years war. This process reached its peak in the 18th century. Deforestation culminated in the cutting of trees for glass works and the wood industry (Kudrlicka & Zaloha 1986). The glass works needed a lot of hard wood, especially beech. This type of production, together with the exploitation of forest litter (dead leaves), caused a rapid beech and fir decline (Malek 1979, 1980).

Throughout the history of the occupation of the Sumava Mts., agriculture played only a secondary role in human economic activity. A phenomenon which substantially shaped the landscape, notably the secondary grasslands, was pasture of cattle in forests and clearings with meadows. It is possible to define several elements of transhumance (seasonal long distance pasture) here, but it was not very extensive if compared with other parts of Europe

(Bray 1983, Chang 1992), for example the Balkans. For example, we have evidence of the alm system of open air cattle husbandry in the Sumava highland zone.

In conclusion we can say that the development of the Sumava Mts. region has a zonal character reflecting different settlement traditions from prehistoric agriculture in the foothills until early modern industrial clearance activity in the highlands.

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