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## TRANSFORMATION OF AGRARIAN STRUCTURE IN THE WINE-GROWING HALOZE

The wine-growing Haloze represent an agreable area of the sub-Pannonian tertiary hills of the low Slovene part of the Drava basin, composed of the miocence sandy and marly sediments and of the prevalent altitudes from 300 to 360 metres. Strong variation of the relief makes for rash changes in the microclimatic exposition and for the discontinuity of the agrarian productive surfaces. Comparatively long fairly inclined ridges are on their sunny side in the upper parts covered with vine, below the vineyards there follow pastures with orchard trees or slopy fields called "lazia" that can be tilled with hoe only. In the valley, or rather in the ravine, where sunshine is comparatively scare, there are meadows or forest. This side of the ridges is covered with mixed, but predominatly with leafy forests. Normal fields are to be found on the drier sandy-loamy pleistocene terraces. In the agrarian distribution disjointed wholes and bits of vineyards are predominant while recently bigger surfaces of vineyards arranged in terraces have started to come up.

Ecological conditions for the production of the wines of northern type are very favourable, the average annual tmperature being 9,8°, the sum of the active temperatures approximating 3000° Cent, and the vegetation term constant being 3.275° Cent. The annual precipitation totals around 1000 mm. Only some  $5\,^{0}/_{0}$  of the wine-growing regions in the world can boast of such ecological conditions for which reason the Haloze wines belong to the world's top-quality wines.

Archaeological finds and historical documentations testify to an early settlement the shape of which was in solitary estates on the slopes. With the expansion and intensification of wine-growing, however, there developed in the 16<sup>th</sup> century a marked settlement distributed over the slopes and this was some 100 years ago provided with moderately developed administrative-agrarian microcentres.

An interesting feature of the wine-growing Haloze lies in the fact that the land ownership of townspeople and farmers from the neighbouring lowland areas was already officially recorder and in the course of the last century also strongly increased. Down to 1935, 444 townspeople and 957 farmers from the lowland areas had — making use of the difficult economic circumstances — pulled out of the hands of the local Haloze

wine-growers almost a half  $(48,5\,^0/_0)$  of the total wine-growing surfaces, and in some parts with the most favourable positions for wine-growing even more than 90  $^0/_0$ . The former owner had become cheap manpower — winegrower — a special category of the agrarian proletariat. In this way a strong mixture in the land ownership had come about, thus, in 1963 of the total number of 3.727 farming estates 2.106 of them  $(-56,5\,^0/_0)$  belonged to native owners, while 1.084 of them  $(-29\,^0/_0)$  to the farmers from Polje, and 541 of them  $(-14,5\,^0/_0)$  to others resident mostly in towns.

In the course of last century, the decay of land ownership led into life in cottages and relying on wine-growing; in 1963 23 estates of the natives were smaller than 1 hectare, while  $40\,\%$  of them comprised up to 2 hectares, and  $72\,\%$  up to 5 hectares. The average size of a native's estate was 4,46 hectares, while the average size of the estate a lowlandarea farmer was 0,90 hectares, and the estates of others were of the size of 1,22 hectare. The everage size of a native vineyard was 0,33 hectare. Such a development of the countryside brought about a strong mixture in land ownership and parcelling of land, preserved the primitive manual tilling of land and the related accumulation of manpower — and in this way the arithmetic density had reached the figure 90, the agrarian density 118, andthe agricultural 247 — which all proves a marked agrarian overpopulation.

With the post-war revolutionary changes the old social problems have been overcome, the invasion of foreign capital has been stopped and a further parcelling of land was stopped as well, social land ownership came into being and the accompanying modern ways of economy. The mixture in land ownership, the former parcelling of land and the related manual tilling, however, and the old manner of land use have remained.

The productive surfaces amount to 96  $^0/_0$ , the non-productive ones to  $4\,^0/_0$ . Of the total productive surfaces  $16,2\,^0/_0$  in taken up by the fields,  $15\,^0/_0$  by meadows,  $3,8\,^0/_0$  by orchards,  $9,8\,^0/_0$  by vineyards,  $17,5\,^0/_0$  by pastures, and  $37,7\,^0/_0$  by forests. Since the land use is characterised by the production of the native farmers, it is henceforth their farming surfaces and their way of land use together with a partial comparison of land use together with a partial comparison of land use in Kmetijski kombinat (KK) that are taken into account. Of the agrarian surfaces of the native farmers  $43\,^0/_0$  belongs to cultivated surfaces and  $57\,^0/_0$  to grassland. Field plus garden comprise  $27\,^0/_0$ , vineyards  $11\,^0/_0$ , and orchards  $4\,^0/_0$  of the farming surfaces. All the vineyards and more than a half of the fields are tilled by the natives by hoe, it is only the fields on the softly inclined pleistocene terraces that are ploughed. The farmers have little light farming mechanical equipment.

On the fields, cereals  $(70\,^0/_0)$  predominate; first among them is maize (50), next wheat. The remaining cereals are of much lesser importance. In addition to cereals the more important field crop is potatoes. Most of the cereals produced on the fields may be regarded as bread cereals, for it is only a part of maize and oats that is given to livestock. Genuine fodder plants, however, are grown only in very small quantities. A large part of the fields is accordingly intended for the production of food. Owing to the unsatisfactory manuring and unselected seeds, the yields per

hectare remain below the average. On the average, fields of one household yield 19 corn units, or 4,9 corn units per one farming inhabitant (corn units calculated according to Blohm). Owing to the frugal field surfaces no regular rotation of crops is as a rule practised.

The orchards are old, strongly infected with the San Jose scale, poorly manured, and their fertility is accordingly small, bearing full fruit as a rule only each third year. There is little of the quality fruit for the market, most of the fruit having to be done into cider. Modern fruit production could in otherwise favourable ecological conditions lead to four times as much of quality fruit.

Most of the vineyards are ca. 60 years old, hence exhausted, yielding — owing to the unsatisfactory manuring (stable manure is none too plentiful, artificial manure continues to be little used) — on the average per hectare only 19 Q of grapes or 16 hectolitres of cider. In view of the expensive tilling with hoe such a production is not paying and can be maintained only with the low standard of living of the population.

The total plant production gives 10,9 hectares of corn units per hectare of farming surfaces and 31,9 corn units per one estate — which is far below the national average. The plant production at the KK gives, on the average  $50-100~^0/_0$  higher hectare yields on the fields and 4-5 times higher yields in the renovated vineyards, while the extremely high yields are even to 8 times higher. Of the plant production,  $25~^0/_0$  goes for food production and  $75~^0/_0$  for fodder production.

From the fact that  $57\,^0/_0$  of all farming surfaces belong to grassland and that  $75\,^0/_0$  of the plant production belongs to the fodder production one might expect a fine state of livestock but the real picture is quite different.

There comes one horse on each 13<sup>th</sup> estate, and a pair of oxen per each tenth. There is little of draught cattle, and we have already mentioned that most of the fields cannot be ploughed while on the steep slopes drawing of carts is also possible. More than one third of the estates have not a cow, more than two swine are grown only on mediumsize and large-size farms, and those living in cottages have just one pig. The cows have small quantities of milk (ca. 1000 litres, at the KK 3.800 litres). An average of 7 hens is grown on an estate; the number of bee-hives is decreasing steadily. There is 0,55 cattle per hectare of farming surfaces and 0,95 per hectare of grassland. There is 1,75 head of tall animals (according to Blohm) per one estate which is strongly behind the average of the neighbouring regions. Livestock gives only moderate surpluses for the market; in 1964 the average of sold livestock per one estate was hardly 0,2 head.

In 1964 the total value of the production on the average estate amonted to 4.248.— Dinars, detailed: Dinars 2.078.— of the plant production, and Dinars 2.170.— of the livestock production, which means  $35\,\%$ 0 less than the average estate in the commune of Ptuj, with Haloze belonging to it. Such a value of the production of course cannot suffice for the simplest needs of the population let alone provide means for the necessary investments for the modernization of economy, above all for the renovation of the vineyards and orchards. Since no industry exists either at Haloze or in the vicinity, it is particularly younger people who emigrate a great deal. During the last decade, a quarter of the population has

emigrated. In view of the 80  $^0\!/_0$  af agrarian population, manpower is al-

ready lacking.

It is clearly obvious that the present traditional organization and technique of farming estates, based on manual (hoeing) cultivating of land, does not meet the needs of modern economic requirements and social relationship. The economically and socially imperative changes in the land use as indicated on the wine-growing terraces adapted to mechanised tilling by the KK will result — in addition to the improvement of the material conditions of the wine-growers — in a number of changes in the population and in the countryside.