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AGRARIAN ECONOMY AND LAND USE IN EASTERN SLOVENSKE GORICE

Eastern Slovenske gorice (or: Ljutomersko-ormoške gorice), tertiary hills between the Mura and the Drava, are a well-know wine-growing region. The vineyards occupy 1875 hectares of land, which is in other words a weak tenth part of all the vineyards in Slovenia. The eastern part of the region (Jeruzalemske gorice) and the western part of the region (Zahodne Ljutomersko-ormoške gorice) show great differences in the use of land. While Jeruzalemske gorice are ecologically extremely suitable for the growth of vine, the remaining part of the hill is less so. This is particularly so owing to the climate, for the warm temperatures sum of the vegetation period in Jeruzalemske toplice regularly reaches beyond 3000° C., while the number of days with the medium day temperatures above 10° C. exceedes 200. More than favourable circumstances for wine-growing are closely related to the character of the relief and to the petrographic variation. Hence the vineyards in Jeruzalemske gorice cover more than 1200 hectares (or almost a fifth) of the area.

The expansion of wine-growing, which is here very old indeed, has also been influenced by favourable social factors, mostly by the capital of townspeople and of the clergy, the chief owners of the vineyards in the past. Before the Second World War, people leaving outside the area — but mostly foreigners, owned 43,4 $^0/_0$ of the productive, and 69,5 $^0/_0$ of the wine-growing land. This land was tilled by wine-growers, highly exploited manpower owning no land of its own and living at a very low standard of living. It was only the agrarian reform and the law concerning the abolition of the relations in which the wine-growers had worked that after the liberation facilitated a radical transformation of that social ownership system and in this way a modern farming on a social basis. Thus, in Jeruzalemske gorice two thirds of all the vineyards have passed in to social ownership. It is small land-ownership which continues hectares of land, and only $8,6\,^0/_0$ of them has more than 10 hectares of land.

The social development after the Second World has brought about a strong depopulation, particulary in areas distant from the employment centres — Ljutomer and Ormož. During the 1953—1961 period, the population has retrograded for c. $7^{0}/_{0}$, the age structure is becoming unfavourable and on the private holdings manpower is increasingly lacking. The effects of the depopulation are hence to be seen in the extensiveness of the agricul-

tural production and in the abandoning of the vineyards. This is made for also by the deagrarization. The percentage of the active agrarian population has been considerably reduced since the last War, but it still amounts to c. 70 %.

Since wine was typically commercial goods, the countryside was undergoing in its development strong social-economic, ownership-structural, and populational changes. Thus, for instance, the prosperity of winegrowing in the first half of the 19th century accelerated the growth of the population which had risen during the years 1822-1869 in Jeruzalemske gorice for as much as $45\,^0\!/_{\! o}$. The wine-growing crisis at the turn of the century, however, caused a decay of the socially weak sections of the native inhabitants, the invasion of foreign ownership, and depopulation. During the period 1900-1961 the vineyards in Jeruzalemske gorice contraced for a forth of the former area, and in Zahodne Ljutomerske-ormoške gorice for a third. The recess of the vineyards entailed considerable changes in the relation between the categories of land, above all an increase of the fileds and meadows and a recess of the forest.

In various parts of the hills, the development of the land ownership and related social conditions and of the land use had a varied course. In the main, three structural types of the agrarian economy strike out as characteristic: the first in Jeruzalemske gorice, the second and the third in Zahodne Ljutomerske-ormoške gorice. The first type is come across in markedly wine-growing areas, where formerly foreign ownership was strongly predominant. These areas underwent after the Second World War a radical social and agrarian revolution. Here, with the introduction of mechanization on the wine-growing terraces, the way of the cultivation of land is most strongly being changed. Private holdings are here of small significance. This holds mostly for Jeruzalemske toplice, whose course of development is clearly marked by the transition into social ownership and by the changes in the way of cultivation. An example of this type of agrarian economy and of land use is the cadastrian parish of Nunska graba* (126 hectares, 202 inhabitants). As the ecological conditions for wine-growing are here extremely favourable, as much as 96 % of the vineyards were in 1824 in the hands of non-native inhabitants. In 1961 the vineyards cover 42 % of the surface. Of this, 85 % or 44 hectares are owned by the social sector, by Vinogradniško-živinorejski kombinat from Ljutomer. Native inhabitants own 20,8 procentage of the land, and non-native ones 15,4 $\frac{0}{0}$. It is only holdings with more than 2 hectares of land that have vineyards. The average parcel of land owned by a native is 17 ares. The wine-growing parcel is the biggest: 41 ares. The average holding covers 1.07 hecaters; per one holding come 6,4 of all, and 0,2 wine-growing, parcels. Of the holdings it is as many as $62 \, {}^{0}\!/_{\!0}$ of such whose members are primarily occupied by work in the Kombinat. Only 4 holdings are farmings ones, and they cover 30 % of the surface and all the vineyards of the native. The cultivation of land in the social sector is mechanised. The traditional vineyards with vine grown on poles have made way for vineyards on terraces, and in this way hoe has been replaced by machine. The new structure of the vineyard plantations has significantly increased the productivity and the yield (60 to 80 hl per hectare). Since vertical growth of vine attached to vertical wire — a kind of intermediate stage between the classic and terrace vineyards — does not permit mechanization, this growth

of vine is being abandoned. Great attention is paid to wine cellers. Both at Ljutomer and at Ormož, a modern wine cellar, each of the capacity of 450 railway carriages of wine, have been built. Intensive plantations of apple-trees likewise increasingly take place of former traditional orchards.

Of the total farming surfaces of private holding i36 hectares) at Nunska graba, fields occupy 50 $^{0}/_{0}$, orchards 27,8 $^{0}/_{0}$, vineyards 5,5 $^{0}/_{0}$ and grassland 16,7 %. Of the agricultural crops it is mostly wheat, maize, and potatoes that are grown. The plant production amounts to 22,9 corn units per one hectare of farming surface, and of this 70 % falls to food plants. Per one agricultural inhabitant come 5 corn units of the production. The growing of livestock is relatively important, 69 big animal units are being grown, of which 73 % is cattle. A holding has an average of 1,5 head of cattle and 1.9 pigs. Per 100 hectares of farming surfaces come 139 animal units of cattle and 35 of pigs, and per 100 agricultural inhabitants 30 animal units of cattle and 8 of pigs. We may conclude that small-scale agricultural productive in the winegrowing regions is considerably intensive and highly productive. On the whole, Nunska graba, however, cannot be characterised as a stockfarming and agricultural settlement, for such is only its private sector, but as a typically wine-growing area with a strong emphasis on the social sector and modern technology.

A wholly different development was that or Zahodne Ljutomerske-ormoške gorice. Here we are concerned with private land-ownership structure and with wine-growing holdings, not based on relationships of exploitation. The vineyards are much fewer in number, moreover, they are to a considerable degree up with natural growth. The social landownership structure varies: from small-scale ones, with the characteristic of winegrowers living in cottages, to solid farmin ones, with almost no vineyard, and also we get numerous transitions between the two agrarian-structural types. An example of teh first type of structure is the cadastrian parish Runeč z Žvabom* (272 hectares, 361 inhabitants) which has by now become strongly disintegrated. In 1824 sa many as 83 landowners of the 183 native inhabitants had less than 0,5 hectare, and 36 landowners had from 1 to 0,5 hectare of land, and in the hands of both groups there was only one fifth of the land of native inhabitants. When the vineyards had been assailed by phylloxera, they were destroyed and consequently the winegrowers-cottage-dwellers emigrated. For the most part their land passed into the hands of the more consolidated peasants in the valleys.

The vineyards which had been build up only ecologically more favourable areas occupy in 1964 at Runč 14,8 %0 and at Žvab only 4,6 %0 of the surface. There is only 46 %0 of surface that is natively owned. The same percentage of land is in non-native ownership, while the social sector occupies as little as 7,4 %0. Native inhabitants have 74 %0 of the fields, but only 23 %0 of the vineyards, while non-natives have 56 %0 of the vineyards and

Cf. Ivan Cerkvenčič—Vladimir Klemenčič: Arbeitsrichtungen and — Ergebnisse der Agrargeographie in Jugoslawien, p. 207, and the map of the land use in the Appendix.

Cf. Stefan Hauzer, Uzytkowanie ziemi i gospodarka rolna we wsiach Žvab i Runeč (Slowenia vschodnia) — Jugoslawia, pp. 105—127.

 $68\,\%$ of the forests. Conversely, at Zvab the ownership of natives amounts to $84\,\%$ of the total surfaces. At Runč there is $19.5\,\%$ of holdings with less than 1 hectare of land, $15\,\%$ with 1 to 2 hectares, $51\,\%$ with 2 to 5 hectares, and $14.5\,\%$ with 5 to 8 hectares of land. Holdings with less than 2 hectares of land occupy only $9.6\,\%$ of the total surfaces. The average size of a land parcel of the natives at Runč is as little as 22 ares, of a vineyard parcel 17 ares, and the average size of a holding as little as 2,9 hectares. Per one such holding comes 13,2 parcels and 1,1 wine-growing parcel. The situation at Zvab is more or less the same. There is $61\,\%$ of peasant holdings at Runč and $70\,\%$ at Zvab. The average size of the holdings of non-natives at Runč is 83 ares.

The holdings at Runč occupy 84 hectares of farming land. $61,9\,^0/_0$ of this falls to fields, $2,4\,^0/_0$ to orchards, $6\,^0/_0$ to vineyards, and $29,7\,^0/_0$ to grassland. The crops grown here are: maize, wheat, clover, rye, and potatoes; these crops occupy fairly equal surfaces. The plant production per 1 hectare of farming surfaces is 26,2 corn units, of which food plants occupy $47\,^0/_0$. Per one agrarian inhabitant there come 19 corn units of plant production. The breeding of livestock is fairly in the foreground. 97 animal units are being grown, of this $67\,^0/_0$ of cattle. A holding has on the average 1,6 heads of cattle and 2,9 heads of pigs. Per one hundred hectares of farming surfaces there come 77 animal units of cattle and 29 of pigs, and per one hundred of agrarian inhabitants 40 animal units of cattle and 15 of pigs. In this way, Runeč and Žvab are an example of peasant, poorly wine-growing, and predominantly agricultural-livestock-breeding agrarian structure.

An example of the solidly-based, non-wine-growing peasant ownership is the cadastrian parish of Bučkovci (345 hectares, 289 inhabitants), which did not undergo any strong changes in the course of its development. Major holdings — in 1824 such with 20 or 30 hectares of land were not rare — have strengthened the percentage of the medium-sized ones, but a subsequent parcelling did not follow. In 1961 the vineyards occupy only 1,4 0 /0 of the surfaces. In the parish three quarters of the land is owned by the natives, 12 0 /0 by non-natives, and the same percentage by the social sector. Of the 62 holdings, 9 holdings have more than 10 hectares of land, while only 8 holdings have less than 1 hectare. The average holding occupies 5,1 hectare, and consists of 14 parcels of land. The average parcel occupies 36 ares. There is 73 0 /0 of pure peasant holdings.

The land use is decidedly orientated towards agriculture and breeding of livestock. The holdings have 210 hectares of farming surfaces, of which $46\,\%$ is occupied by fields, $11\,\%$ by orchads and vineyards, and $43\,\%$ by grassland. Among the crops grown the first place is definitely occupied by wheat, which is followed by maize, rye, potatoes, clover, and oats. The plant production per 1 hectare of farming surface is 19.4 corn units, of this the production of food plants occupies $47\,\%$.

Per one agrarian inhabitant comes 20,6 corn units of the plant production. In view of the dampness in the valley, strong emphasis is laid on the production of grass and hay, hence the livestock occupies here a more significant place than in the previous two cases. 219 animal units are grown here, of this $68\,\%$ of cattle. An average holding has 2,6 head of cattle and 0,3 head of horses, and 3,8 head of pigs. Livestock production sells well. Per one hundred of farming surfaces come 71 animal units of cattle and 20 of pigs, and per one hundred of agrarian inhabitants 86 animal

units of cattle and 24 of pigs. Bučkovci is accordingly a marked agricultural-livestock-breeding settlement, a certain stamp of which is lent also by the socially-owned production of livestock and fruit. This production is to be even more prominent in its influence on the land use in the years to come.

Owing to the small percentage of the socially owned land, the post-war period has brought in both structural types of Zahodne Ljutomersko-ormoške gorice less dynamics than in Jeruzalemske gorice, altough the indirect influences of urbanization have penetrated into this area as well. De-agrization is poor here, and so the depopulation has drawn away the most active inhabitants, thus pressing into the foreground the question of the cultivation of land in the future. Intensive orchardgrowing in conjuction with breding of livestock is accordingly here the only perspective course of farming.

The character of the agrarian economy and of the land use in eastern Slovenske gorice has been radically changed since the Second World War by the disintegrating of the old social land-ownership structure, based on a very early encroachment of foreign capital on this land. Additionally, an intensive development of socially managed farming and of non-agrarian activities in the nearby centres was started, for which reason the character of land use is changing more rapidly than ever before. For a further development of the agrarian economy it will be necessary to improve the backward, small-scale, extensive and non-perspective private farming which has remaind strongly behind the esocially managed farming. To ensure to the private producer small means of mechanization is just one link in the complex agrarian-geographic problems.