

AGRICULTURE AS A PROVIDER OF LANDSCAPES, TICVANIU MARE VILLAGE CASE STUDY

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Abstract

Considering agriculture as both a large-scale user of land and a provider of landscapes, this paper aims to present the evolution of landscape in Ticvaniu Mare, Caraș Severin County, located in the Romanian Banat Region due to different agriculture policies. The paper debates on different historical periods: Habsburg Empire (beginning with the 18th century), between the wars (1918-1939) with The Romanian Agricultural Reform (1921), communism and post communism period (1990) until present day. We are interested in how agriculture modified the landscape over time and if there still are landscape elements bearing witness to such changes in the present. The research focuses on different scales: a small scale, the village, its tissue, plots' structure, homestead, specific architecture and a large scale, outside the village, agriculture fields, orchards, meadows/pastures and agriculture infrastructure and buildings. The research data has been obtained through different research methods: archive research (The Romanian National Archives in Timisoara and Caransebeș, Municipality of Ticvaniu Mare archives), map comparing and several field observation. The research on agriculture policies during different periods and landscape changes reveal that the two are well interconnected and that landscape should be taken into consideration by the local/national/European agricultural policy.

Key words: agriculture, landscape, landscape change, agriculture policy.

INTRODUCTION

Considering agriculture as both a land user and a provider of landscapes (Lefebvre et. al., 2012) this paper intends to analyse different agriculture policies and the way they changed the landscape in Ticvaniu Mare village. Landscape means an area whose character is the result of the action and interaction of natural and human factors (Council of Europe, 2000) and agricultural landscape is the result of the land use and management system in an area (Kizos et. al., 2006). Also, landscape is considered to have memory, some characteristics we see today come from the past, representing different historical periods and management systems (Haines-Young, 2005). The research on landscape changes in Ticvaniu Mare due to different agriculture policies is part of a wider research dealing with agriculture landscape in different villages in Banat, the historical perspective being the central focus. Agricultural policies applied different on Banat's area during historical periods, in accordance with natural and social conditions. Therefore in some villages the

historical periods with agriculture policies are more present than in other and determined different landscape changes. There are typical archaic Romanian villages in Banat, still practicing traditional agriculture where the landscape systematization during Habsburg Empire did not apply, nor communist collectivization (Crivina de Sus in Timiș county or Cornereva in Caraș Severin). On the other hand, Banat plains suffered great landscape changes during Habsburg Empire when a great part of the marshes were drained out with the help of Dutch engineers (Griselini, 1984) and transformed in agricultural land. During this period new villages were settled, following new predefined typology (Bußhoff, 1938) the most common typology being the cess table (Biled and Hatzfeld in Timis County) and the cross shape typology (Bogarosch). This period is also associated with the modernization of agriculture in Banat. Later, probably one of the most important agriculture reforms in Romania is the Agriculture Reform in 1921, that applied a set of laws for each region in Romania, in Banat applied the Law For Agriculture Reform in Transilvania, Banat,

Crișana and Maramureș from the 30th of June 1921. Few of the mutations generated by the agricultural reform were:

- the reduction of big properties and the raise of the percentage of medium and small properties;
- the raising of medium surface of medium and small properties and the reduction of it in case of the big properties;

- the reduction of the bipolarity of the agriculture property in Romania; (Oțiman, 2007).

Not in the end, period of the collectivization process during communism starting with the law 187/1945 for the agrarian reform (Oțiman, 2006) is probably one of the most intensive reforms with a great impact on rural society and landscape:

- the private property was transferred to the public/governmental property;

- there were organized local centres for agriculture machines (the future SMT);

- the most efficient farms (between 50-100 Hectares) were totally or partially turned into governmental property;

- with the Decree 133 in April 1949 agriculture cooperatives (first named GAC) began to be founded.

Ticvaniu Mare the village is mentioned in 1699 to have a majority Romanian population, the property of Petru Macskási and later it appears in official Empire documents (Lotreanu, 1935) and detailed maps. In time the landscape in Ticvaniu Mare suffered radical changes due to agriculture policies and agriculture land management as it was subject of all agricultural reforms.

MATERIALS AND METHODS

The research proposes a historical approach on the village of Ticvaniu Mare (Agnolleti, 2007) and the methodology focuses on two different scales:

- A village scale with its tissue, plots' structure, homestead, circulation and architecture

- A large scale analyse, outside the village (Ticvaniu Mare's territory) with agriculture field, orchards, meadows/pastures agriculture infrastructure and buildings.

The results will be correlated with short references on social impact and changes in social structure.

Research materials are obtained from four main sources:

- Archives study: National Archives in Caransebeș, Municipality of Ticvaniu Mare Archives, National Agency of Land Improvement, Timiș- Mureș inferior Teritorial Branch Archives (ANIF) and personal archives;
- Historical map and plans comparing;
- Studies and research on Banat;
- Field observations and landscape analyse (James et. al., 2008);
- Photographic documentation;

RESULTS AND DISCUSSIONS

1. The village scale analyse

Being a majority Romanian village, Ticvaniu Mare has a typical organic tissue. Usually, Romanian villages structures before Habsburg Empire colonisation are organic, in relation to the landscape and natural conditions, the houses are grouped and the circulation system is not very well developed (Ciobotă et. al., 2014) (Figure 1). Generally, the house is surrounded by a garden or there is a small orchard nearby. In Romanian villages, usually young couples leave their family's home and move out building their own, phenomenon named "roire". (Gheorghiu, 2008). During this period, the houses in Romanian villages were made out of clay, straw and reed or the walls were made out of knitted birches and clay. Usually a house had two rooms, one used as a kitchen and one as a dormitory.



Figure 1 Ticvaniu Mare. The First Military Survey 1763-1787 (<http://mapire.eu/>)

After Kempelen visited Banat, to observe the colonization process, the Empire ordered a set of regulations for the colonization named "Impopulations-Haupt-Instruktion" (Roth, 1988). This regulation affected not only the

new colonized villages but also Romanian and Serbian typical villages. The house was to be placed perpendicular to the street so that the access inside was protected. Not only the house and its relation to the street was affected by the new regulations, but also the village structure, circulations became more coherent and houses got in better relation to them (Figure 2).



Figure 2 Ticvaniu Mare. The Second Military Survey 1806-1869 (<http://mapire.eu/>)

Village architecture is well related to community occupations and the level of welfare. A quick analyse on Ticvaniu Mare architecture reveals different periods in the village history, most of them connected to agriculture. The analyze of Ticvaniu Mare's Second Military Survey map, reveals a quite dense compact village, with the plots orientated perpendicular to the street (Figure 3), with a very strong axis (the road from Resita to Gradinari). All the houses have small cultivated gardens. Romanian peasant's agriculture techniques are described to be poor, and they cultivate only some roots and few plants for eating (Griselini, 1984).



Figure 3 Typical clay house of a 19th century peasant with later extension at street side (original)

In time, the house typology changes in Ticvaniu Mare. Houses perpendicular to the street are less built and the house parallel to the street begins to be typical. The new house typologies are bigger, more compact and together with its annexes define an interior yard

well protected. The crop garden is outside this ensemble (Figure 4).



Figure 4 House No. 342. Typical compact house of a rich peasant 20th century (original)

All these coherent structure and architecture was brutally completed during communism period with technological/urban architecture such as the Machine and Tractors Station (SMT), the Veterinary Centre, animal stables or the engineer's block of flat. In 1971, People's Council of Caraş-Severin County orders a research for architectural solutions in rural areas in Caraş-Severin County. The project No. 255 *Research about housing in rural areas* is accomplished, offering 10 architectural solutions in accordance with different cultural landscapes (Unit for Planning in Caraş-Severin County, 1972). Nevertheless, few years later the project No. 1645 orders the construction of a six apartments block of flat that should be finished until 1979 (Figure 5).



Figure 5 Block of flat for agriculture engineers, 1979 (original)

Part of the communist buildings and farms were put down after December 1989, but few still remained as marks of the period.

Even if the structure typology of Ticvaniu Mare was with the houses facades close to each other, describing a continuous front, street side, the situation has changed in the late years when part of the Romanians, because of economic problems and weak agriculture reform, left the village, selling their houses to gipsy community that built their own typical houses (Figure 6).



Figure 6 Typical continuous house front interrupted by a new out of the scale house, 21st century (original)

2. The large scale analyse (Ticvaniu-Mare territory level)

On the First Military Survey map, agriculture landscape in Ticvaniu Mare is quite modest. There are few gardens or orchards near houses and few arable terrains along Caraş river. For this period, cultivating the land is very well connected to nature and it has a small impact on the landscape. A family produces only for its own needs. Another reason could be the lack of agriculture knowledge, as Romanian peasants don't plough the land or they do it very bad and they don't fertilise the land with compost (Griselini, 1984). Situation changes, the map of The Second Military Survey reveals that the whole village of Ticvaniu Mare is surrounded by orchards, and first lots are noticed. Another sign that the agriculture developed are the two mills along Caraş river, one of them still in the same location, still functioning until modernization and later closing after miller's death. During Habsburg Empire there were several regulations for beautification of villages, but also for planting fruit trees and especially *Morus alba* for silk production (Griselini, 1984). Therefore, alignments of trees along roads already appear on the Second Military Survey map of Ticvaniu Mare.

The situation of Romanian peasants is not very good during this period. A statistical survey in Transylvania, Banat, Crişana and Maramureş conducted in 1914 reveals the fact that a very important part of the agricultural terrain, 11.283.818 jugăre (1 jugăr= 0,5775 hectares) belonged to minorities (6 jugăre/peasant), meanwhile Romanians had only 1 jugăr/peasant (Georgescu, 1943). This situation, but also agriculture situation in other Romanian regions, was the fundament for an agricultural reform, process started in 1918 and finished in Banat in 1921 with the Law For Agriculture Reform in Transylvania, Banat, Crişana and Maramureş.

As an immediate result, there was an excessive fragmentation of land generating a diverse landscape mosaic (a complete plot was of 7 jugăre and a colonisation plot had 16 jugăre) (Law For Agriculture Reform in Transylvania, Banat, Crişana and Maramureş, 1921) and a decrease in production due to poor endowment. Later, in April 1949, the process of agriculture organising into a system of collective farms, following the Soviet model of *kolkhozes*, started also in Romania. In Ticvaniu Mare the Collective Agricultural Farm (GAC) was founded later in 1952. At first, GAC was founded by 42 families but statistics show that only in 7 years there were already 215 families as GAC members (Collective Agriculture Farm report, 1960). Still GAC Ticvaniu Mare wasn't a very stable organization, dealing with great variations of land use from one year to another as it is revealed in The Annual Production and Financial Plans 1962-1969. The situation turned to be different starting with 1966 (Production and Financial Plan of GAC Ticvaniu Mare, 1962-1969) when GAC was transformed in Agriculture Co-operative for Production (CAP).

In 1976, the Agriculture Co-operative for Production (CAP) Ticvaniu Mare plants the first plot with orchards (P1) (Figure 7) having a total surface of 28 hectares (13.852 trees) and during 1977-1978 plantings in P1 continue and the second plot (P2) is planted with a total surface of 93 hectares (76.500 trees). In 1977 The Economic Inter-cooperative Fruit-growing Association is founded and the orchard surfaces are turned into farms (P1 turns into Farm No.1 and P2 turns into Farm No.5.).



Figure 7 Land preparing for tree planting. Plot P1, 1976 (eng. Costescu G., director of AEIP Ticvaniu Mare personal archive)

In 1978, a plot belonging to Farm No.2 is planted (P3) and later in 1979 and 1981 trees are planted on the last plot of the farm (P4). In 1984 and 1986 the last two small areas are planted in Farm No.1, one with cherry trees and another with raspberry (Figure 8). Even if

AEIP was founded in Ticvaniu Mare, only three of the five fruit tree farms owned by the association, were situated on Ticvaniu Mare's territory. Farms No.3 and No.4 were located on Cârnecea and Secăşeni territory.

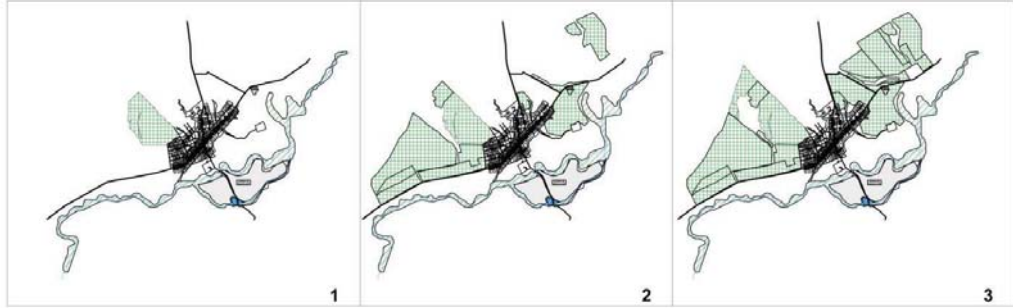


Figure 8. Fruit trees planting situation at AEIP Ticvaniu Mare between 1976-1986 1. Tree planting in 1976; 2. Tree planting 1977 and 1978; 3. Tree planting in 1979, 1981, 1984 and 1986 (original, after an eng. Costescu G., AEIP Ticvaniu Mare's director situation, dated 1983)

Between 1976 and 1986 a total surface of 406,78 hectares of land were transferred from the Agriculture Co-operative for Production (CAP) Ticvaniu Mare to AEIP Ticvaniu Mare and they were converted into orchards. An analyse on the land use situation before being converted, proves that for parcel P1, a total surface of 100,64 hectares was converted (97 hectares of natural pastures and 3 hectares with other usage). For parcel P2, a total surface of 139,38 hectares was converted (95,64 hectares of arable land, 24,53 hectares of pastures, 7,65 hectares of meadows and 11,18 hectares with other usage). For parcel P3, a total surface of 40,22 hectares was converted (37,92 hectares of pastures and 2,3 hectares with of other usage). For parcel P4, a total surface of 126 hectares was converted (70,59 hectares of arable land, 40,27 hectares of pastures, 9,65 hectares of meadows, 1,08 hectares of orchards and 4,95 hectares of other usage). (AEIP Ticvaniu Mare, 1980). This land conversions together with land drainage and land erosion control works along Caraş river are maybe the greatest changes in Ticvaniu Mare's landscape since Habsburg Empire. In 1985 the National

Agency of Land Improvement (ANIF) starts a large project of erosion control and agriculture land drainage. For better management, the area around Ticvaniu Mare is divided in two subzones, Vărădia-Secăşeni with an impact area of 3.734 hectares and Greoni-Ticvani subzone with an impact area of 7.855 hectares. The channels' total length for Vărădia-Secăşeni subzone has 121.235 meters (73.520 drainage channels and 25.680 meters erosion control channels) and for Greoni-Ticvani subzone the channels' total length is 138.451 meters (122.601 drainage channels and 15.850 erosion control channels). These works had also architectural elements such as bridges, concrete tubes and abrupt discharges (ANIF archives, 1985-1989). Even if all those quantities were not implemented only on Ticvaniu Mares's territory, the impact on the landscape and especially in Caraş flooding valley was quite significant. The marshes here were drained out and their specific vegetation (*Salix alba*, *Salix fragilis*, *Populus tremula*, *Populus alba*, *Sambucus nigra*, *Rubus idaeus*) were cut down. All this natural landscape was transformed in agricultural landscape (Figure 9).

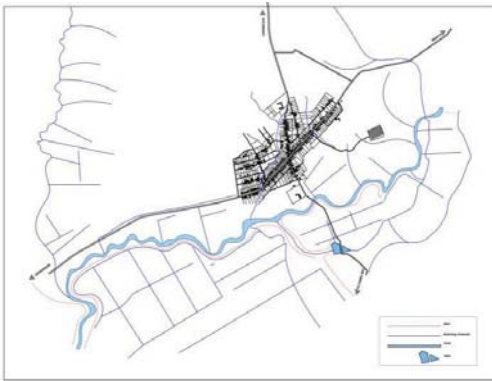


Figure 9. Drainage channels system and flooding protection dike (original, after an ANIF map in archives)

After 1989, together with the transition from communism to capitalism the agriculture situation was not very good. Even if dissolving both AEIP and CAP in Ticvaniu Mare was very well welcomed, the peasants and agriculture situation wasn't getting better. The new Law 18/1991 was applied. Even if the law had two objectives: to give back property to people and to make the agriculture reform, it is proved to be very weak and its impact wasn't the expected one. There were two immediate effects on the situation of Ticvaniu Mare:

- peasants received small properties, maximum 10 hectares (even if they had more before collectivization) and the new farms were very bad endowed.

- the migration of the village population to the city and the aging of the remained population (Oțiman, 2007).

As a short term effect on Ticvaniu Mare's agricultural landscape, there was a great fragmentation of the arable landscape and a great diversity of land mosaic with a growing trend in land abandonment because of a weak agricultural reform. As for the great potential of fruit farms (they were in full economic production), even if the land was returned to peasants property, they didn't have the specific technology and knowledge to continue production. As a result, on a medium term, the fruit farms declined and turned into almost forested areas (Figure 10).



Figure 10 In the foreground abandoned apple trees orchard and in the background forested plum trees orchard at Farm No.2 Ticvaniu Mare (original)

From the large surface of fruit trees farms (708 hectares belonging to AEIP Ticvaniu Mare) only a small surface was still maintained (2 hectares of apple trees farm) until 2003.

Because of the Law No.7/1996 of Land Cadastre articles, of the already poor rural communities and of the land low price compared to other EU countries, a phenomenon of large personal farms and large agriculture land property appeared in Romania. In Timiș and Arad counties, in 2007, based on an unofficial data-base, one third of the agricultural surface was already part of this kind of large farms property of foreign companies (Oțiman, 2007). In Ticvaniu Mare this phenomenon determined a great landscape change, agriculture landscape mosaic being less diverse (Figure 11).



Figure 11. Large farms on Ticvaniu Mare's territory (Agency of Agriculture Payments and Interventions in Agriculture Caraș-Severin)

Starting with the year 1880 there was a constant decrease in population and in ethnic diversity due to different reasons (Table 1). Between the periods with the greatest impact, besides the two world wars are the communism period and the period after December 1989 until now. The communist period was one of the most tragic periods for Romanian peasants culminating with HCM 308/1953 for the expropriation of land. This was the moment

when lots of the peasants in Ticvaniu Mare left their village and moved to industrial places around (Reșița, Oravița, Ciudanovița, Anina) to work in industry or mining. After December 1989, the Ticvaniu Mare's community identity loss process continued because of economic problems and lack of a real agriculture reform with a great impact on landscape and village architecture.

Table 1 Population in Ticvaniu Mare village between 1880 and 2011 (Varga E. Árpád, 2000 (updated in 2008). Nationality and confessional census in Transylvania, III. Arad, Caraș Severin and Timiș Counties between 1880 and 2002, Pro-Print Publishing, Miercurea Ciuc. For 2011 census data from the Municipality of Ticvaniu Mare)

Year	Total	Romanian	Hungarian	German	Gipsy	Other	Possible causes of the decrease in population
1880	1844	1775	2	24	-	1	
1890	1871	1834	2	31	-	1	
1900	1832	1761	13	36	-	3	
1910	1684	1589	6	46	-	1	World War I
1920	1422	1348	4	21	-	-	
1930	1452	1388	5	43	13	1	World War II
1941	1262	1095	3	36	-	-	
1956	1054	-	-	-	-	-	
1966	880	698	1	3	175	3	Collectivization process culminating with HCM 308/1953 for the expropriation in industry interest and later Decree No. 115/1959. The moving from the village to industrial areas.
1977	832	652	1	5	173	-	Economic problems, weak agriculture reform and migration to EU countries
1992	782	482	7	10	280	3	
2002	831	470	6	8	342	-	
2011	862	363	3	3	483	-	

CONCLUSIONS

Different policies applied during different historical periods produced dramatic changes into Ticvaniu Mare's landscape along the past centuries.

The application of this historical analyse method shows that there are landscape elements transmitted from the past to the present time. This kind of research should build the basis of a future strategy of management, protection and restoration of such heritage as part of the local identity.

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Another conclusion is that agriculture policy did not change only the landscape but it also had a very strong impact on the community. During Ticvaniu Mare's history there are big changes in the community structure.

As a main conclusion, the historical approach studying agriculture policy in Banat and particularly the way they applied and influenced Ticvaniu Mare, reveals a very strong interconnection between policies and landscape dynamic with a great impact on community identity.

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