

## THE CYCLE OF ANTHROPIC RURAL LANDSCAPE IN GIURGEU DEPRESSION. SPATIAL-TEMPORAL EVOLUTIONS

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**Abstract.** Economic and cultural development as well as communications led to expansion of relations between individuals and social groups, strengthening the consciousness of unity and common destiny, without diminishing the zonal/ local differences, peculiarities that are kept in time. Types and territorial distribution of rural and ethnographic landscapes are governed by natural resources, demographics and the economic factors. The evolution of the human factor over time, changes in structure and swarming of human settlements, general management for economic purposes, gave rise to a variety of rural / ethnographic landscapes in Giurgeu Depression.

### 1. Demographic analyse

Evolution of population (workforce) is the main criterion for differentiation the rural landscapes based on the geomorphic analysis. The impact of population on natural landscape is expressed in a significant manner by agricultural density of population which is calculated by the ratio between population and agricultural used area.

$$Da = P/Sa \rightarrow 78079 \text{ inhabitants./}1034,3 \text{ km}^2$$

This demographic indicator registers a value of 75.5 inhabitants/km<sup>2</sup>, namely that the population has a share of average human intervention, if we analyze it in comparison to other similar physical-geographical units, such as the Ciuc Depression. Low density, below the overall average we encounter in Joseni(40,5 inhabitants/km<sup>2</sup>) and Suseni(42,1 inhabitants/km<sup>2</sup>). Higher densities than the overall average we encounter in Remetea (76.4 inhabitants/km<sup>2</sup>) Ditrău (78 inhabitants/km<sup>2</sup>) and Gălăuțuș (105.8 inhabitants / Km<sup>2</sup>). The evolution of the human factor over time, changes in structure and swarming of human settlements, general management for economic purposes, gave rise to a variety of rural / ethnographic landscapes in Giurgeu Depression. Dynamics of rural / ethnographic

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landscapes was transformed quickly, moderately or coiled. Agro-economic criteria (use of land) differentiated the following agricultural landscapes: very extensive agro-pastoral types (80% of commons) and cultivated fields, extensive small plantations of fruit trees in the hearth of settlements with mixed farming. Rural areas, in the ordinary meaning of the term, appeared together with the settlement of the man and the appearance of the first housing and first improvements for agricultural production. In time, between rural societies and the territorial complex that they exploited and are still exploiting it created a series of sustainable and deep relationships, hardened by activities, physiognomy, traditions, customs and very diverse interests. Thus, the countryside is no longer, most often, only the domain of agricultural and pastoral activities, much space serves for industrial, commercial activities, for relaxation and recreation, a place of residence for farmers, as well as for the non-agricultural population (figure nr 4). However, it remains with a certain way of social existence, support of human life and base of resources of food and raw materials for industry. Rural space makes the rural landscape and includes the attributes of agricultural area, those of housing, tourist facilities, historical objectives and equipment providing the link between rural (habitat) and productive forms, between them and markets. Rural settlement is defined as a human community situated in a well defined territory and engaged in multiple primary followed by secondary and tertiary activities, being from this point of view, a basic concern for interdisciplinary research: geography, sociology, history, economics, etc. They approached economic issues related to: resources, cultural and artistic traditions, architecture, handicraft activities, conducted in rural areas that could be problematized based on components of conceptual complex: **Rural settlement + rural space = ethnographic landscape.**

According to the Organization for Economic Cooperation and Development methodology depending on the capacity of rural areas in Giurgeu depression to integrate in national economies, they can be grouped into three categories describing in direct correlation with the index of dispersion of settlements, various ethnographic landscapes (Fig. no. 2):

- economically integrated rural areas near urban industrial centers, developed and characterized by increasing number of population, the existence of jobs, more developed infrastructure (Joseni, Lăzarea, Gălăuțaș, Subcetate, Sârmaș).
- intermediate rural areas are those that are relatively far from major cities, but have access to the means of communication. They depend largely on agriculture as well as on the industry of processing the agricultural products (Ditrău, Voșlăbeni, Remetea, Ciumani, Suseni).
- remote rural areas are those that have a low density of population, unfavorable demographic structure, the income is low and dependent on agriculture. Also here, there is a poorly developed infrastructure, unfavorable natural conditions, low

opportunities for economic development ("hamlets" of the commons: Ditrău, Remetea and Gălăuțaș-fig. no. 1 and 2). In 2002, Țengheler "hamlet" of Ditrău common was left, at the census no inhabitant was registered. But in 2010 there were built here three farms, all with a pronounced agro touristic character and a Roman chapel Catholic was raised right in the pass. The rest of the settlement was abandoned, older houses are almost demolished (photo no. 1-2). Martonca and Făgețel villages, in Remetea commune are depopulated since the 1970s, the current function being of summer abodes without functional organizational structures.



Photo no.1-2 - Tilalmaș hamlet, traditional ethnographic landscape, formed by successive swarmings between Ditrău and Jolotca on the Subcetate-Toplice fragmented plateau. Țengheler left hamlet, the recent history of ethnographic landscape (twentieth century)

## 2. Rural areas

These regions are related to values such as nature protection and preservation of cultural specificity, a sense of belonging to a community, the experience of healthy environment etc. Parts of the agricultural and non agricultural rural land form a distinct entity from urban areas, entity characterized by specific basic functions:

- economic function, supported by a system of farming and forestry, fishing, rural tourism, exploitation of natural resources, operation of productive small and medium industry;
- ecological function, promoted by the protection of biotic systems, maintaining diversity and specific characteristics of the landscape, protection of natural components of healthy life (soil, water, air) - Natura 2000 site " Giurgeu Mountains and Depression";

From structural point of view, the rural/ ethnographic space is different through its economic and social components, which prints the specific features in the landscape:

- suburban rural landscape is circumscribed to big urban industrial centers, its size is determined by its economic, demographic and administrative power of the respective poles. The authentic rural is

increasingly absent, the population is very heterogeneous, most of them practicing commuting;

- intermediate rural landscape represents the agrarian area of countryside, with private farms;

- peripheral rural countryside, defined not in terms of territory, but primarily from economic and social perspective, is that part of the countryside that is "peripheral" from the economic and productive point of view. The main factors forcing the rural spaces to become the periphery are: agro-ecological potential, position of rural areas to supply and sale centers, agricultural overproduction or unfavorable soil-climatic conditions. This structure is not strictly defined in space-time, because within each category island areas from other categories are found.

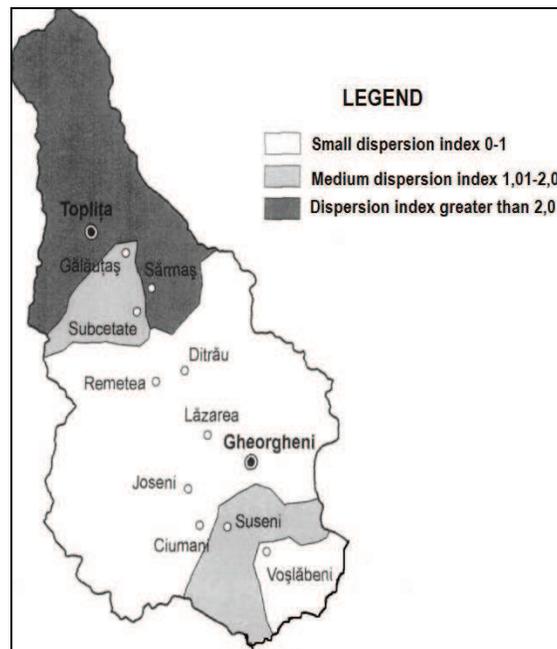


Fig. 1 - Index of dispersion of settlements in 2002 (processing after Mara, 2008)

The term of ethnographic landscape was first used in Romania by Ion Ghinoiu "criterion of maximum generality after which the humanized (cultured) spaces can be classified is soil that can be covered with vegetation (rural-agricultural landscapes) and construction (rural, urban, industrial landscapes). Rural areas will be divided into: agriculture (arable land, vineyards, orchards, pastures, meadows) and non agricultural (water, forests). From the agricultural use of land (agricultural, pastoral, tree-wine) and non-agricultural (forestry, fisheries) it resulted ethnographic landscapes (civilizations). "According to the taxonomy of popular culture made by the IEFRA ethnography sector, the components of ethnographic landscape are:

- a) habitat: village, household, housing, divine shelter, posthumously shelter;
- b) livelihoods;
- c) hunting, silkworm rearing, cooking, transportation and means of transport;
- c<sub>1</sub>) crafts: wood, clay, stone, iron, hides and skins, heaven, flax, hemp, wool, animal hair, bone, horn, wattle, rush and reed;
- c<sub>2</sub>) popular technical installations: located on the banks of the river or stream: mills, saw mills, the press to crush and squeeze the fruit and oil seeds, irrigation facilities for household textiles (fulling mills, mills, whirlpool, woolcards) for minerals (machines to crushed ores), human energy (grinder, beater, loom, lathe and mill operated by foot etc) boilers for brandy as well as animal power (plants for groundwater, woolcards)
- d) artistic manifestations: folk art and costumes;
- e) spiritual manifestations: celebrations and customs (calendar, family), folklore (folk literature, ethno-musicology, ethno-coreology), mythology.

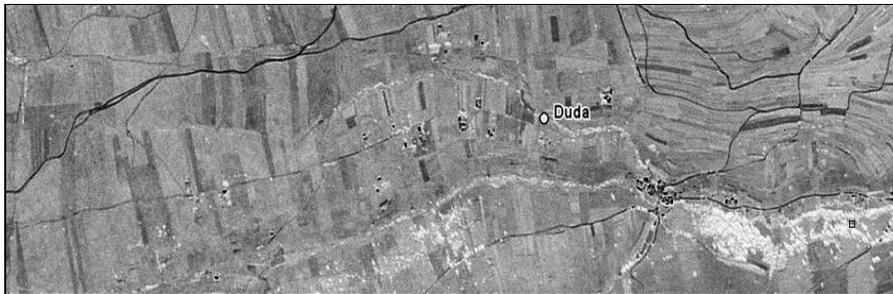


Fig. 2 - Duda "Hamlet" of common Gălăuțaș. We can observe the large dispersion of households on the Gurghiului Piedmont (Source: Google Earth, accessed 30/03/2011)

Forest landscape is crucial for the whole typology of the current landscape in Giurgeu Depression and it is defined by:

- space-time existence of a significant forest;
- perpetuation of a civilization of wood;
- presence of wood in all areas of material life.

Human risks identified in Giurgeu Depression (based on sociological surveys and analysis, interviews with government in the community (focus group) and stats on sites of county council and county police) are considered with secondary and medium potential, as effect of amending the countryside:

- poverty affects in average over 50% of people from Giurgeu Depression, of which about 10% are situated below the threshold of subsistence (Fig. No. 2);
- unemployment indicator is closely related to the one already mentioned, the unemployment rate affects about 15% of the population. The impact of unemployment on mental health of the population is crucial, creating other emerging risks in recent years: crime, divorce, suicide, chronic alcoholism, drug abuse, hallucinogenic effect etc;

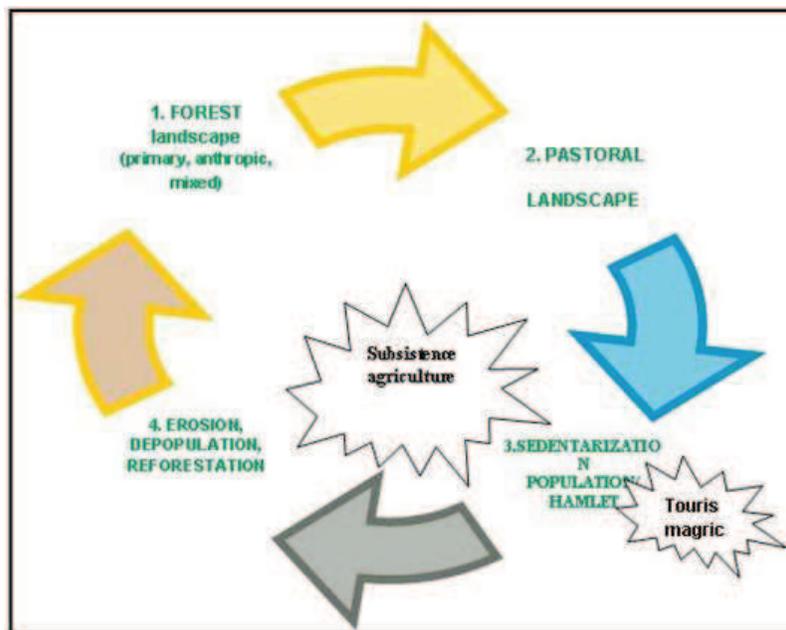


Fig. 3 - Nomogram agro-pastoral landscape cycle (forest landscape → deforestation → agro-pastoral landscape → hamlet → agro-pastoral landscape (with agro-tourism development valences) → depopulation and reforestation)

- alcoholism is a phenomenon of risk amplified by the prolonged economic crisis, and sometimes is determined by historical and even traditional custom. There is a worrying increase in alcohol consumption in young and female sex;
- Crime has increased values in recent years. Juvenile delinquency often reaches fever pitch, being in correlation with the risk factors already mentioned. Economic crime is also increasing due to multiplication of theft of wood from the private sector or from the state, with disastrous effects on the appearance of forest landscape and incidence on geomorphologic landscape changed intensively.



Fig. 3 - Semi-travellers Roma "Hamlet" in the former quarry of volcanic agglomerates from Moglănești (Toplita) that determine the continuity of degraded geomorphologic landscape

### **Conclusion.**

Giurgeu depression, in general, in terms of taxonomy landscapes could be classified into "the type of agricultural and forest landscapes influenced anthropogenic " (Dincă, 2005). Due to the diversity of natural factors, rural landscape in Giurgeu depression has limited circumstances of development. Limits of countryside or humanization (economic) extend to where human activities have the ownership of land, regardless of its use and derivative landscape: forest or agropastoral. Landscape cycle described in Fig. no. 3 is the essence of the evolution of landscape in Giurgeu depression and photo no. 2 represents the transition from residential landscape, to the left, deserted one and eventually, in process of reforestation. Rural and mining landscapes are among the most visible changes in the extensive natural (geomorphologic) landscape of Giurgeu Depression,

customizing, in some places, the features of anthropomorphic natural landscape. Where human intervention to cover the "wounds" caused by exploitation of natural resources, sometimes aggressive (deforestation, mining, quarries etc.) by ecological construction and re-construction, it is tried their restoration to the natural landscape.

The results achieved in improving the environment and implicitly in the value of actual rural landscape give on the short and medium term, positive multiplier opportunities and even a specific know-how, good practice in rural settlements in Giurgeu depression (examples: rock quarries at Suseni, Voşlăbeni, Ciumani, Toplița, Lăzarea; dumps in the valleys Turcu/Török, Jolotca/Orotva as well as those on the superior course of Belcina/Belkya/Becheni valley in the mountain area of Giurgeu.

The emergence and development of agro-touristic component of the rural landscape, sometimes with eco-agro-touristic canopy derived from the principles of sustainable development, has produced important changes in all the studied geographical area, new activities practically contributing to the rapid development of rural communities. Development of non-agricultural activities, more numerous in rural areas can gradually affect the fundamental and structural features of it, with unpredictable effects on the ethnographic landscape as a whole, leading to de-ruralization of space and movement to suburban areas (Lăzarea, Joseni) or even to urban industrial evolutions in perspective (Ditrău).

#### **Bibliography:**

- Apostol, L., Paraschiv, V. (2010)**, *Insights in the polemical history of geographical landscape*, in volume „Humanist itineraries”, editor-coordonator dr. Doina Balan, Performantica Publishing House, Iași (pp. 20-57).
- Donisă, I. (1979)**, *Geographic landscape in the vision of systemic conception*, Analele Șt. UAIC, Iași-seria nouă, secț. II-Geografie.
- Mara, V. (2008)**, *Giurgeu and Ciuc depression. Study of regional geography*, Univ. „Babeș-Bolyai”, Cluj Napoca (summary phd thesis).
- Pătroescu, Maria, Niculae M.-I. (2010)**, *The rurality between the Ramnicul Sarat and Buzau Valleys-Definitive component of the SubCarpathian Landscapes Dynamics*, Forum geografic. Studii și cercetări de geografie și protecția mediului”, anul 9, No. 9:107-114.
- Perșu, Mihaela, Nancu, Daniela (2009)**, *Types of rural landscapes in the Oltanian Subcarpathian Depression*, Forum geografic. Studii și cercetări de geografie și protecția mediului, Anul VIII, nr. 8:124-130.
- Ungureanu Irina (1988)**, *Modification antropique du paysage dans le Nord-Est du Plateau Central Moldave*, în Analele Științ. ale UAIC din Iași (seria nouă), secț. II.b, Geol.-geogr, pp. 81-83.