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SPATIAL COORDINATES IN BUILDING THE BRAND IMAGE OF REGIONAL METROPOLISES. THE CASE OF IAŞI MUNICIPALITY

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Abstract: The article explores the spatial dimensions of the brand image building of the cities / regional metropolises, with an application on Iaşi as a study case. The starting point is represented by the results of the researches in *FP7 project EuroBroadMap. Visions of the Europe in the World*, which shows that the city of Iaşi has an unfavorable position among the preferences of the Romanian student's questioned, which raises some questions about its role as a regional metropolis. In order to improve its position, the city could appeal to the territorial marketing strategies. In this direction, using the results of some field surveys, the article studies the opportunities for structuring a brand image depending on the spatial structure of the symbolic characteristics of Iaşi.

Key Words: *regional city, territorial marketing, city lovemark*

Introduction

The collapse of the communist regimes has permitted the reconnection of all national urban systems and a fast creation of a system of European cities which, boosted by the globalization processes, had entered immediately into a competition with each other. This competition is based on the power relationships that describe the efforts to selective attraction of the activities, investments, labor and equipment (Equipe PARIS, 1993). In this tense relational field, the metropolitanisation degree of regional or national urban systems is the parameter that ensures the success or failure of integration of the cities in the international trends of economic exchanges, migratory, intellectual, travel and cultural. The urban systems in Eastern Europe are less metropolized and therefore less prepared to face the demands of globalization and Europeanization, but local authorities have become sensitive to this and begin to act consequently (Coudroy de Lille, 2005).

For regional metropolises, or rather for regional cities – although the terms are still confused (Bailoni, 2008), to exist means to be known and be well placed as active poles for international flows. An ongoing study, *FP7 EuroBroadMap. Visions of the Europe in the World*[1)], based on the analysis of the answers of over 10.000 students from around the world, shows a clear break between the attractiveness of cities in Western and Eastern Europe. The Research Center CUGUAT-TIGRIS, responsible for the research of the situation in Eastern European Union, has made surveys in two university centers, Iaşi and Bucharest, interviewed between

1) The study is made by an international consortium composed by European teams (from Belgium, France, Malta, Portugal, Romania, Sweden, Hungary), Asian (China, India, Turkey), African (Cameroon) and South American (Brazil) and at this stage it follows the vision that students have about the states and cities of the world, analyzed according to their knowledge (number of occurrences in responses) and their attractiveness / non-attractiveness (Like to Live / Not like to Live); http://www.eurobroadmap.eu

October to December 2009 a total of 439 students from different majors fields (social sciences, political sciences, business, health, arts, engineering). The preferences to live in different cities and their degree of knowledge (Fig.1) shows the same difference between Eastern and Western Europe, but also differences within Romania. Thus, Bucharest, Braşov and Sibiu are better known and liked than the city of Iaşi.

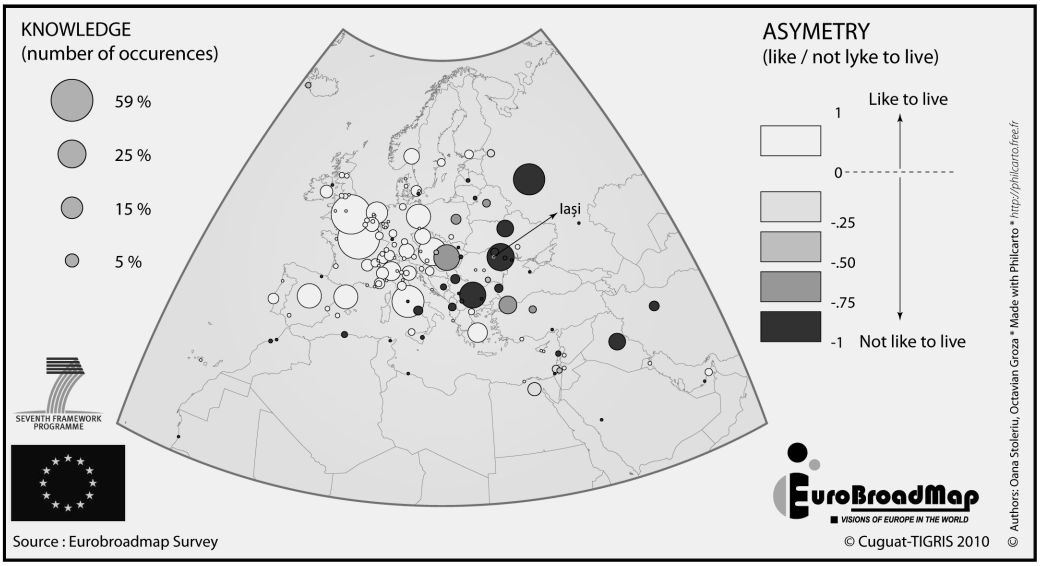

Fig. 1 – **Iaşi in the field of the preferences of the Romanian students**

This last finding, in apparent contradiction with the position of regional metropolis of Iaşi, raises the question of territorial marketing strategies that must apply to regional towns to improve the position / the image in the urban systems organized at different spatial scales. In this article we will not consider elements somehow objectives (resources, population, equipments, infrastructures) that can be mobilized in these strategies but cultural ones (identity values, historical heritage), cumulated on long-term, and which have therefore a character much less conjuncturale than the first one. These resources did not exist than in extent they are mobilized by territorial actors whose work seeks clearly the territory development (Gumuchian et al., 2003). Generally we can speak of the existence of two types of resources (Pecqueur, 2003, 2004): generic resources (their value is independent of their participation in any production process) and specific resources (exist as such but their value depends on their use).

The attractiveness of a territory, and especially her permanence, are stronger once the territory has more resources and more specific assets (Pecqueur, *ibid*.). The question therefore is the knowledge of the specific resources of the city and the estimate of their ability to be mobilized by marketing strategies to build / strengthen a territorial particularity able to provide the insertion of the municipality in the national and European urban system. Once built (structured), the territorial specificity is not enough in itself to serve the purpose of the territorial marketing strategies - it must be communicated. The communication process involves first the finding of the elements of visual identity easy to transform into a message which can transmits immediately to the receiver a number of positive associations of ideas, intended to structure an image as nearest as the realities of the respective territory. Therefore, the brand image of a

place is very close to the economic notion of brand marketing. Gardner & Levy (1955) assert that the brand is "a complex symbol representing a variety of ideas and attributes, that notify the consumer about several things, not only by how it "sounds" (and by literary significance, if it has it) but, more important, by the complex combinations that he built it and acquired it as a public object during a certain time"[2)]. According to Keller (1997, 2003) "what distinguishes a brand by an article without a brand and what gives him a economic value is the sum of consumer's perceptions and feelings about the product attributes and how to materialize them, at the brand name and what represents it and about the company associated to the brand", the brand being "a set of mental associations held by a consumer, which increase the perceived value of a product or service"[3)].

In the territorial marketing, the visual identity elements are components of the territorial complex and, mostly, they describe his symbolic dimension (Table 1). The diversity of situations, due to the many possibilities of combining *in situ* these components, combined with the diversity of perceptions of the target audience makes very difficult to choose the most suitable elements, capable to focus and to submit in a quickly assimilable form the essence of the territory in question.

Table 1

The territorial mix

Components	Variables
Organic component	**The history of territory**: the origin of the population, its role in country's history ... **The culture**: progressive traditions, conservative ones, ancient rituals, traditions, religion.... **The current organization of the territory**: the share of territory in the region, neighbouring cities, the locating of public services ...
Economic component	**Historical studies on the dominant economic activities** **Current economic diagnosis**
Geographic component	**Impact of geographic conditions** (relief, climate ...) on the identity of people, locating of economic activities
Symbolic component	**The visual identity of the territory**: - Landscapes (forest, mountain, parks ...) - Old and new architecture (castles, palaces, churches, factories ...)

Source: *Girad- Millet V., 1995.*

In this context, the designing of a necessary methodology finding the items with the highest visual impact, and affective of course, proves quite complicated. The most stable landmarks of such methodology should be searched first in the imaginary constructions already existing on the studied territory, and secondly in the ultimate goal pursued by the territorial marketing strategies. In the ideal case, the goal of these strategies should aim to crystallize a *lovemark* (Fig. 2), which combines the highest proportions, the affectivity and the respect of the target audience.

2) Quoted by Avasilcăi and Huțu, 2005, p. 18-19.
3) Quoted by Avasilcăi and Huțu, 2005, p. 18-19

Unlike economic marketing strategies, those of the territorial marketing have more difficulties to overcome, one of the most obvious being the one raised by the geographical scale of projection. If the respect for a particular place is less sensitive to the effect of distance and scale, affectivity is instead highly related to the attendance at that place, its actual knowledge, or the attendance and the knowledge are relatively to the proximity and accessibility. In the process of building the brand image the respect can be a force strong enough to act subsequently as a magnet for the target audience, which will thus be tempted to discover that location and, in case of a joyful experience, to integrate it into their emotional world.

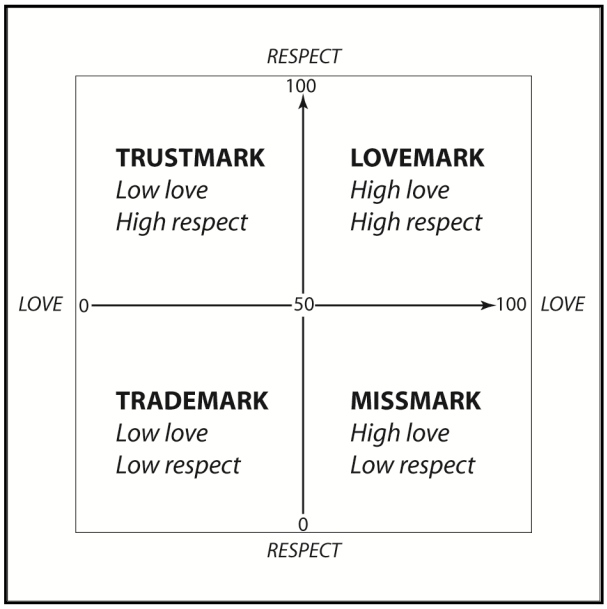

Fig. 2 – **Marks categories** (Samama, 2003, modified)

For this to happen it needs that the elements of visual identity selected lead to a brand image matching to the goal and respect rigorously their functions (function of differentiation, competition, spatial organization, promotion, etc.), with primary emphasis on the guarantee of quality. It is relatively simple for a brand image to create simple and powerful differentiations in the imaginary of the target audience, but it is harder for her to respect two fundamental dimensions: relevance and credibility, both describing in fact the guarantee of the territory quality that it promotes. The image promoted outside the city must accord with the image that the people of that urban settlement have.

The significant differences between "the promoted city" and "the living city" put the visitor in difficulty, leading to a decreasing of confidence in the "bought" product.

This article is structured on a crucial question, which arises from the previous assertions: what are the elements that a regional metropolis should use to build her brand image so that she minimizes the risks to promote an image that does not correspond to the local realities?

Material and Methods

This study is based on an inquiry which was realized from March to June 2010, on a sample of 135 subjects through the interviews face to face at the subjects address and via the Internet, by posting the questionnaire on the website www.esurveyspro.com (Paftală-Ciubotărița, 2010). 45 persons were male respondents (33%) and 90 female individuals (67%), aged over 18 years, residing in the city of Iaşi (74) or in other localities, urban or rural (61), most part from Moldova.

Table 2

Sample structure

Ages (years)	Number	Level of education	Number	Profession	Number
18 – 25	50	Elementary school	4	High skilled professions	76
26 – 35	39	High-school	21	Intermediate professions	5
36 – 45	26	University	79	Office employees	14
46 – over 60	20	Postgraduate	32	Workers	6
				Students	26
				Unemployed	6
				Retired	2

The age structure of respondents is relatively uniform, with a predominance of the age category 18-25 years, which participates with 37%, followed by the age group 26-35 years (28%), 36-45 years (19%) and 46 - over 60 years (14%).

In terms of education level the sample shows a predominance of persons with advanced studies (58%), followed by 24% of respondents with postgraduate studies, 15% have high school education, the fewest having secondary education - 3 %.

The classification by types of occupation was realized based on the socio-professional categories from the nomenclature developed by the National Institute of Statistics, which added three additional classes corresponding to those unemployed. It emerges that 56% of respondents are included in the category *Teaching and higher intellectual professions* (teachers and scientific professions, careers in the information area, art and performances, company engineers and technical staff, etc.), 10% have a profession included in the category *Officials* (civil servants and staff employed in public service, staff employed in direct services to individuals, etc.), and 19% are still students.

Regarding the marital status of respondents, 43% are unmarried, while 57% are married (among the married ones, 69% have children, and the remaining 31% are couples without children).

People who participated at this survey responded to a questionnaire with 29 closed questions, semi - closed and opened, structured in such a way to allow the notification of general elements and specific ones related to the possible structuring of a brand image of the city Iaşi and in particular to its promotion.

Results and discussion

The analysis of responses show that the respondents, originating mostly from Moldova, are very attached to Iaşi: 99% of respondents declared they are proud that they are residents or visitors of the city of Iaşi, 89% said they are very attached, emotionally of this city, 73% believe that Iaşi is a highly respected name, and 42% could not imagine a world without Iaşi.

Despite this, the responses show that the respondents do not outbid the place and the role of Iaşi in the national territory. Thus, questioned on the importance at regional and national scale of the city, 91% say that the city of Iaşi is the most important city in Moldova and 99% gives him the attribute of the most important university center in Moldova, while at national scale, the hierarchies are changing, the most important university center is considered the city of Bucharest (64%), followed by Iaşi (25%) and Cluj-Napoca (10%).

The respondents are sensitive to the phenomenon of urban competition and have identified as the main competitors of the Iaşi municipality the city of Cluj-Napoca (82%), Timişoara (70%), Braşov (47%), Bucharest (47%), Constanța (43%), Piatra Neamț (32%), Bacău (30%), Suceava (27%) and Sibiu (26%).

The general analysis of the responses reveals a complex image on the city of Iaşi (Table 3), with some contradictory elements (cheerful city - city where the living is not good / poor town, young city - closed city to the ideas from abroad, etc.).

Table 3

The composite image and sometimes contradictory of the city

Positive aspects	Negative aspects
- Cultural city - 97% - Attractive university town - 92% - City with special sightseeings - 92% - Friendly, warm city - 83% - Town with old traditions and customs - 79% - Safe city for tourists - 79% - City located in a nice area - 78% - An attractive touristic destination (68%) - Young city - 67% - A city which has a modern infrastructure of accommodation - 61% - City with quality touristic services - 57% - Aesthetic city - 54% - Lively city - 51% - City with satisfactory (37%) or good (26%) recreational opportunities	- High unemployment (87%) - City where the living is not good - 78% - The current municipal team does not give a positive image to the city - 77% - The old transport infrastructure, which does not satisfies the needs of the residents - 71% - City which doesn't have a dynamic economy - 70% - A city that had suffered both during the communist and post-communist period - 62% - Closed city to the ideas from abroad - 61% - The current image of the city abroad discourages the business development - 53% - Poor city - 52% - A touristic destination too expensive compared with the quality of services - 40%

However, are generated several lines of force which can form the base for an effective and equitable territorial marketing strategy. Thus, related with elements of the territorial mix, the responses highlight the cultural (94%) and educational (30%) dimensions of the municipality, followed by the others: 28% believe that the historic past of the city is an asset for the city brand image (the capital of Moldova, and later of unoccupied Romania, the town of the three unions, promoter city of the 1989 Revolution), 14% indicate the natural element as being important in building the image of the city (geographical location, the existence of greenery islands inside the city, and of the woods in the suburbs), 8% mentions the importance of religious item (relics of St. Cuv. Paraskeva, the approximately 100 churches and monasteries), 5% believe that the economic activity has an important contribution to the image of the city (the touristic, industry and commercial activity), 5% remember the traditions and customs kept, 3% mentions the attribute of medical center, of prime importance, to Moldova and 2% the "how to be" of the people (open, hospitable, warm).

In the event that each of the respondents (130) would meet with an EU citizen and would understand one with each other in the same language, he would say the following about Iaşi: Iaşi is by excellence a cultural and academic city (50%) , with a special natural and cultural heritage, which suffers from the disinterest of the authorities and the negligence of the citizens (28%), a city with a rich and brilliant history (17%), a city with charm, beautiful, happy, bohemian, which combines tradition with modernity, a quiet town, secure, civilized, young (35%), with welcoming people, quiet, open to new, well-trained in various fields (15%). The geographical location (4%) and the traditional cuisine, with quality wines and dishes (2%), represent as many positive aspects that must be said.

To promote a more attractive image, in the 106 valid responses, the visual elements most quoted refer to the architectural monuments (The Palace of Culture - 62%, The Metropolitan Cathedral - 23%, The Three Holy Hierarchs Monastery - 20%, The National Theatre "Vasile Alecsandri" - 17%, The Cetăţuia Monastery - 10%, various architectural monuments with a special architecture - 23%, The Golia Monastery - 6%, The Galata Monastery - 5%), cultural elements ("Alexandru Ioan Cuza" University - 36% , The Central University Library "Mihai Eminescu" - 9%, The Ion Creangă Memorial House - 9%, the museums - 5%), natural elements (The Botanical Garden - 29% The Copou Gardens and the Carol I Avenue - 25%, Mihai Eminescu's Linden Tree - 16%, the green spaces, generally, - 13%), religious items (the places of worship from Iaşi - 12%). Asked about the spontaneous images associated with Iaşi (Fig. 3), the Palace of Culture stands out clearly, with 71%, followed by The Copou Gardens and the Carol I Avenue (42%), the "Alexandru Ioan Cuza" University (34%), the Cathedral Metropolitan (28%), the Botanical Garden "Anastasie Fătu" (14%) and by the Three Holy Hierarchs Monastery (11%).

The list includes mainly cultural and educational institutions, which confirms the cultural dimension as a potential force field for a possible marketing strategy. In addition to this question, the respondents had to answer to another one, concerning the monuments that would include in a touristic "Golden Platform" of the town. The responses, mapped in Figure 4, focus the objectives in a central area extended north-west - south-east and displayed on a relatively restricted area. The effect of proximity of these objectives, framed by an appropriate urban policy, can give to the image of Iaşi a character of *relevance* and *credibility*, thereby minimizing the distance between "the promoted city" and its territorial realities.

The urban marketing strategy is based clearly on the cultural dimension of the municipality with her concrete projections in the city area - would have the opportunity to find the exact proportions between affection and respect and would lead to the structuring of a city lovemarks

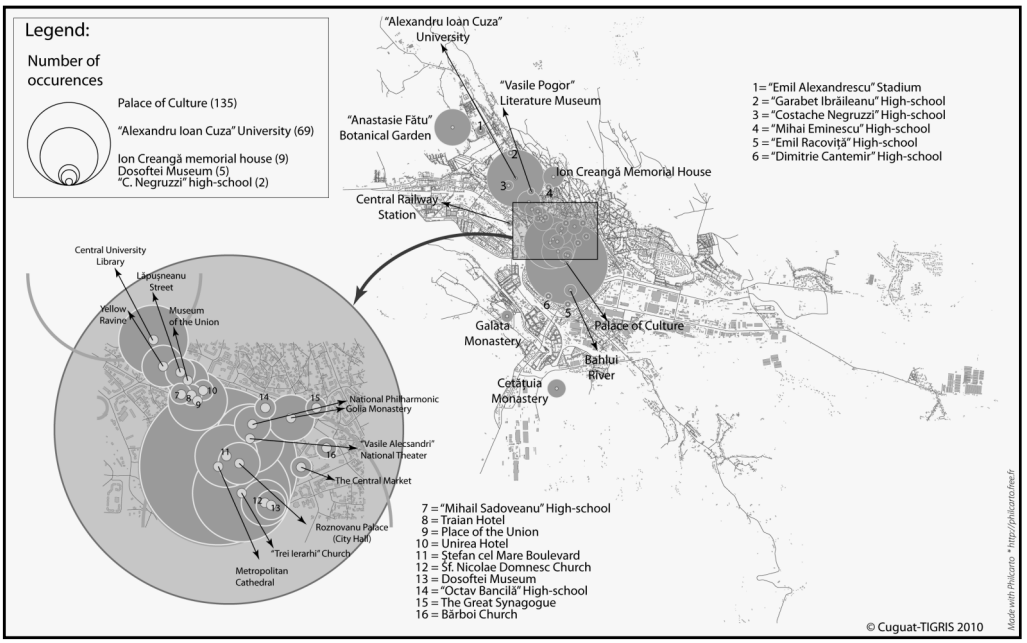

Fig. 3 – **The frequency of places associated with the municipality of Iaşi**

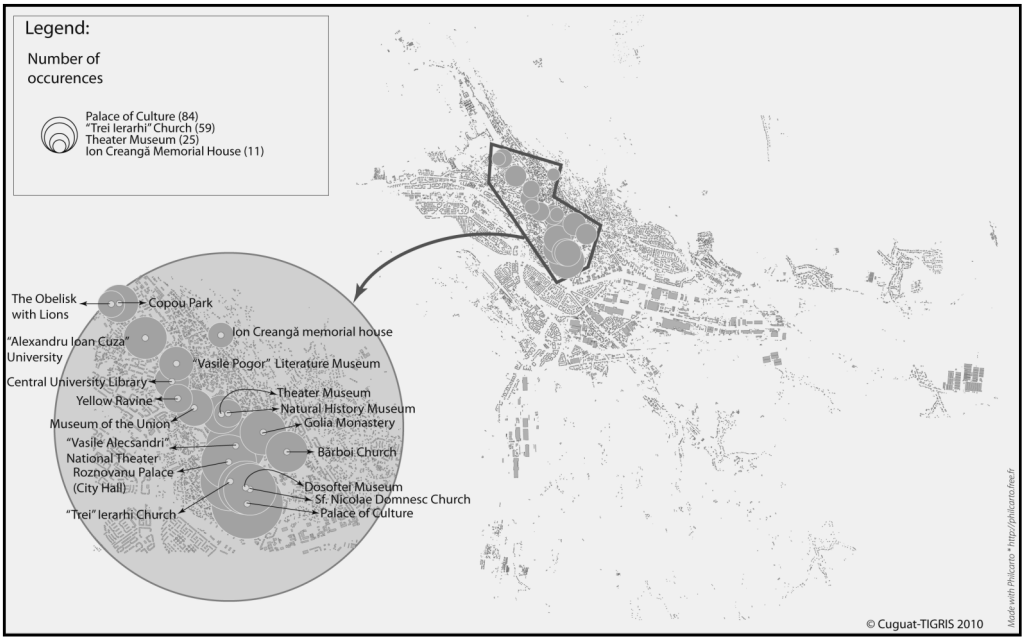

Fig. 4 – **The spatial structure of the symbolic capital supporting a possible city lovemark of Iaşi**

in the true sense of the word.

The promotion of this possible city lovemarks is another matter. The current heraldic symbols related to the Iaşi municipality (Fig. 5) are less visible in the public space and therefore less known to the respondents, who were unable to recognize the emblem of the county and even of the city. Instead the figure of the Palace of Culture on the anniversary logo of the 600 anniversary of the city facilitated the reception by the respondents that this logo has a clear link with the municipality of Iaşi.

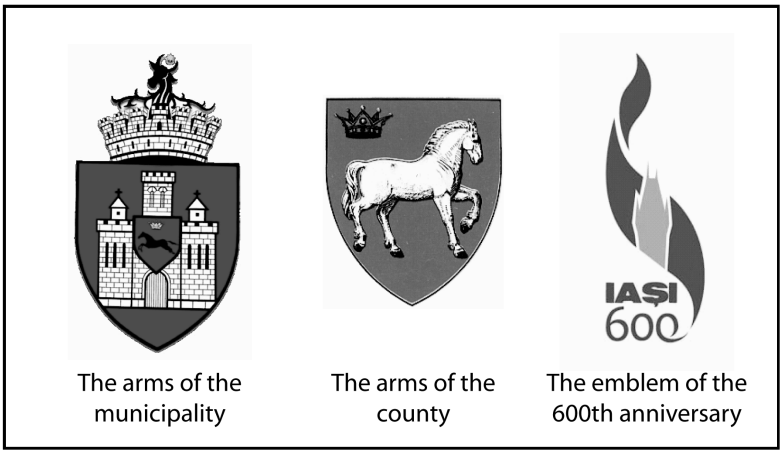

Fig. 5 – **The arms and emblems related to the Iaşi county and to the Iaşi municipality**

Continuing this idea, the questionnaire sought to capture the existence of some general symbols, very present in the collective mind. The question was semi-opened, being offered 19 versions of answer (constructions, sites, personalities) of which the respondents had to choose the ten most representative, and to note them, from 1 to 10 (10 - the most representative, 1 - less representative). At this question there were 101 valid responses. After analyzing the responses (Fig. 6), it is clear that the most representative symbol of Iaşi, in accordance with the freely expressed opinions, is the Palace of Culture (54%), other possible symbols being the Metropolitan Cathedral, which houses the relics of Saint Paraskeve (24%), The "Alexandru Ioan Cuza" University (10%), The Three Holy Hierarchs Monastery (4%) and The Botanical Garden (3%).

Located within the Golden Platform, these objectives are also relevant to the municipality according to the 120 of the respondents, who consider that the promotion of the city should be based on the cultural heritage (81%), on the fact that is a cultural, historical and academic city (31%), with quality and cheap touristic services - 7%.

The Palace of Culture, currently insufficiently visual promoted, can be officially a symbolic image of the city because the associations of ideas that he induces to the viewer's mental, surprise happily the dominant traits of the city, like they emerge from the responses analyzed. In addition, his image synthesize very well the functions of a brand image (differentiation, competition, promotion ...), being credible and relevant for the municipality of Iaşi.

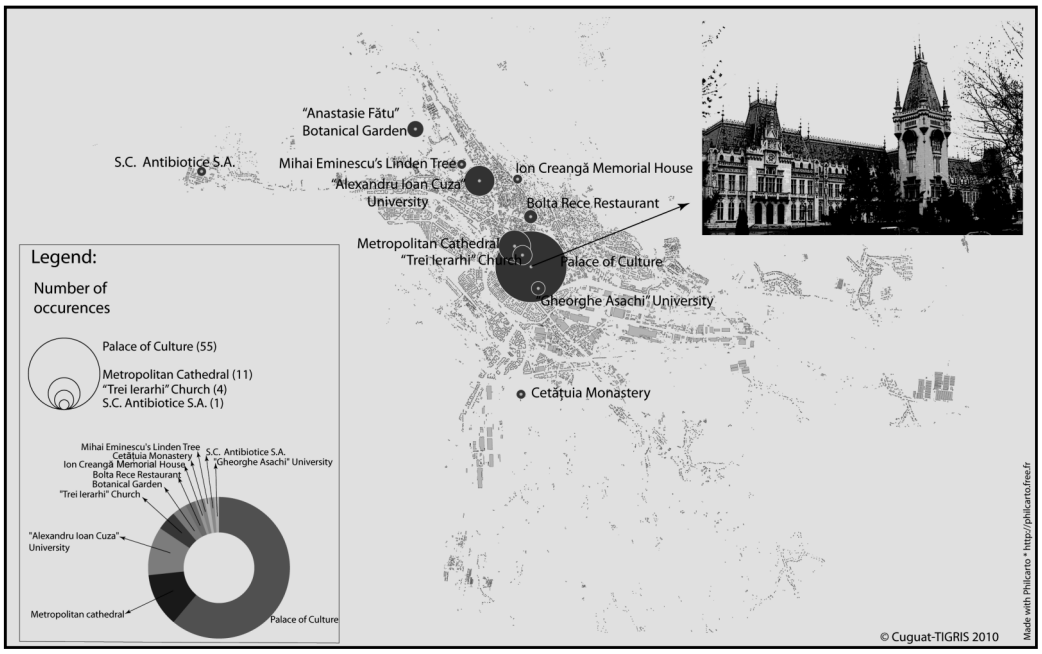

Fig.6 **– The most frequent symbols associated with Iaşi municipality**

Conclusion

„With a single flower is not possible to make the springtime" says a Romanian proverb. The brand image of a city can not be built, maintained and circulated based on a single objective, on a single symbol. The research carried out in this article demonstrates that the spatial dimension of the symbolism of urban territory is very important in creating a credible brand image. A city-lovemark can not be built without the truths of the urban space and without the freedom and pleasure of the visitor to find itself that he was not wrong giving confidence to an image. In case of the cities that have experienced the pressure of the communist government and in which the modernities have often remained unfinished dreams (Groza, 2001; Stoleriu, 2008) it is difficult to achieve the necessary balance between the cognitive, moral and aesthetic space (Bauman 1995). The proximity in the urban space of the symbolic targets, loaded by past and traditions, may be helpful in finding this balance, but it is not the solution itself, because, as apparent from the investigation, the behavior in public space, education, kindness, hospitality and the opening of people put their mark on the perception of the stranger about that location, on its future mental constructions focusing, usually around the first impression.

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POTENTIAL CLUSTERS IN BANAT AND THEIR ROLE IN REGIONAL ECONOMIC DEVELOPMENT

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Abstract: The interest in the study of clusters and their role in the economic development of certain regions has constantly grown in the past years. This interest has also been emphasized by the emergence of successful clusters in many regions; these are clusters that have visibly and they have determined the increase in competitiveness of those particular regions. Clusters are geographic gatherings of firms and institutions, connected to each other and specialized in certain fields of activity. In Romania, due to the low cooperation level among enterprises we cannot say that proper clusters exists, but just some "spatial gatherings" of firms activating in certain domains, connected by the need of using certain natural resources and the existence of a specialized workforce in that particular domain. Natural "clusters" can be identified by means of quantitative analyses, these indicating the possibility to identify certain spatial assemblies of firms in a certain economic sector. Starting from these quantitative analyses, for Banat region have been identified some important spatial gatherings of firms activating in certain domains which could represent potential clusters in this area. As clusters function on the principle of cooperation among enterprises, a strong point of the region is the presence of foreign investors which promoted the model of enterprise cooperation through sub-contracting local enterprises. Among these, we mention the Italian investors which brought to Banat, especially to Timiş County the Italian cluster model. Are there in Banat premises for the emergence of clusters? Which are the fields of activity in which these clusters can emerge? What role will these clusters play in the economic development of the region? These are just some of the questions that we aim answering to through this study.

Key Words: *entrepreneurial initiative, spatial gatherings of firms, clusters, economic development, Banat, Romania.*

The concept of cluster

According to the definition of Michael Porter (1998), clusters are "*geographical concentrations of firms and institutions, in interconnection, that activate in a certain field of activity*"[1)]. Together with many firms that cooperate, inside the clusters can be found governmental bodies and educational institutions, training centers for professionals, employers' associations etc. So, there are producers, providers, researchers, partners or even competitors inside the same industrial branch, which have their businesses in the region. The cluster can be located in every type of territorial community, from the smallest (towns, groups of communes), to large regions inside a state, the entire territory of a state, or border regions between states.

The experience of developed countries shows that cluster processes serve as a base for constructive dialogue between the people in the entrepreneurial and state environment, educational, information environments, nongovernmental associations etc. They allow

1) M. Poter, *Clusters and the new economics of competition*, Harvard Business Review, Boston, november-december, 1998, p. 78.

increasing the efficiency of relations inside the innovation processes from the private, state, commercial associations, educational institutions and research sectors. These cooperative relationships are beneficial first of all for the firms, because they help improving their performances, becoming more competitive. Moreover, cluster development in a region contributes to its specialization in the respective fields, which will become dominant and technologically advanced. (Fig. 1). Although there are competitive relationships between firms, being specialized on similar types and varieties of products, the development of parallel cooperation relationships gives them an advantage in terms of competitiveness through diffusion of innovation from one firm to all the others' that form the cluster. Thus, an optimum of competition – cooperation balance is created between the local firms, which will lead to competitive advantages for the whole cluster. As for the role of clusters in supporting a region in its competition with another region, M. Porter (1998), differentiated three ways in which to achieve this: by increasing the productivity of the companies inside that region; by establishing the direction and rhythm of innovation, which will influence the future productivity; by stimulating the creation of new businesses, which would develop and strengthen the cluster.

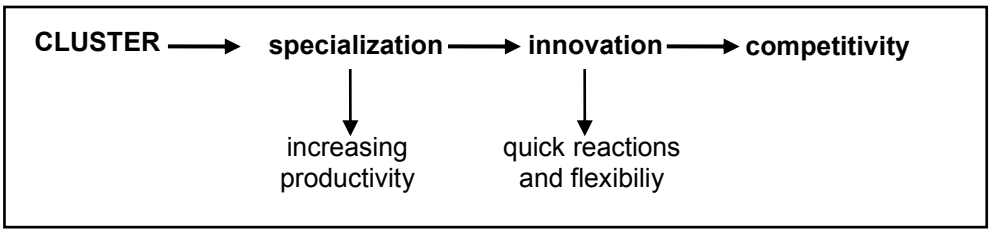

Fig. 1 - **Clusters and their role in the development of a region**

Clusters have a positive influence not only on innovation and competitiveness, but also on the increase of business dynamics on a long term. Integrated in a network, the companies have greater chances of survival in a competition environment, than if they were to remain isolated.

Premises of cluster apparition in Banat

Due to the low level of cooperation between firms, we cannot talk about clusters in Romania, only about "spatial agglomerations" of firms in a certain domain, tied to the dominance of natural resources and the existence of a specialized population in that field. These are "natural" clusters, which can be identified based on quantitative analysis. Together with "natural clusters", there are also the so-called "public" clusters, which are agglomerations of firms resulted from public policies. By law, these have the status of industrial parks, scientific and technological parks. If in the case of scientific and technological parks, there is a partnership between firms and educational/research institutions, industrial ones are most of the times just an agglomeration of firms which do not cooperate, but only share the infrastructure offered inside the park [2)]. The difference between "natural" and "public" clusters is the fact that natural ones occurs spontaneously, over time, while the latter are the result of public policies.

The research has shown that in Romania clusters have crystallized in domains such as software, naval industry, wood industry, textile industry, ceramics and shoe industry.

A possible methodology to identify and analyze potential clusters in a region would have the

2) Pîslaru D., *Prospects and challenges for cluster development – possibilities for implementing the cluster model in Romania*, in „Clusteri de întreprinderi şi internaționalizarea IMM-urilor. Cazul zonei Timişoara, România", Timişoara, 2004, p. 1.

following steps:

- identifying spatial concentrations of companies in certain fields of activity (based on quantitative analysis);
- identifying traditional industrial sectors;
- analyzing the level of endogenous entrepreneurial development, based on the traditional local production (the emergence of some small and medium-sized enterprises in tight relation with the natural resources of the area);
- ISD[3)] analysis in the region, which led to the development of small and medium-sized enterprises with cooperation between firms and subcontracting relationships and to the development of sectors of activity preferred by the foreign investors;
- identifying the relations that exist between firms inside the potential cluster, relations between different categories of firms, from the raw materials providers to the production, distribution firms, as well as firms that promote courses for professional forming in on field or another;
- identifying the institutions that capable of developing the economic infrastructure and which provide services to local companies (universities, research and innovation centers, banks, consulting centers etc).

Starting from this methodology and using mostly quantitative analysis, there have been identified in Banat important concentrations of firms in several fields of activity, which could represent potential clusters.

An important factor that generated the developing of incipient collaborative relationships between firms has been the *presence of a high number of foreign investors* in Banat, which has positively influenced the emergence of companies with between-firms cooperation characteristics. From these, a decisive role went to the Italian investors, which brought especially in Timis county, the model of "industrial district", which is the Italian model for cluster. The fact that most of the Italian investments come from the Italian region of Veneto contributed to facilitating the social process of cohesion of Italian entrepreneurs[4)]. Practically, the internationalization of Italian firms came with the relocation of the pre-existent networks in Italy, thus allowing the transfer of knowledge in the newly formed network. Gradually, local firms began to be included in the network, through subcontracting. The tendency to subcontract of the Italian firms played an important role in spreading the entrepreneurial culture in the region, which, correlated with the *high initiative spirit of the Banat inhabitants*, contributed to the emergence of some small and medium-sized enterprises (SMEs) with Romanian capital, some of them becoming important links inside the forming of clusters.

The presence of raw materials resources (wood, crops, construction materials etc), of a specialized workforce in various domains, of sectors of activity with tradition in Banat (textiles, chemicals) and new sectors (high tech, IT, communications), which in the last few years had a considerable development, also represent important factors in developing successful clusters in this region. For a cluster to function and become competitive, together with the firms that form it, other regional actors also play an important role, they must have the ability of developing the regional economic infrastructure and stimulating the entrepreneurial potential. In Banat, such institutions are: universities (at Timişoara, Lugoj, Reşita), research centers, consulting centers, financial and banking institutions, commerce chambers at every county level, other

3) ISD = direct foreign investments

4) A. Majocchi, *Dezvoltarea unui mediu de afaceri favorabil: din experienţa firmelor italiene din regiunea Timişoara, România*, în vol. „Clusteri de întreprinderi şi internaţionalizarea IMM-urilor. Cazul zonei Timişoara, România", Timişoara, 2004, p. 9.

organizations of business environment (ADR West, ADECS, ADETIM, Euro-Info centers, OTIMM Timişoara)[5]. All these are only a few of the premises of the emergence and development of important clusters in Banat.

Potential clusters in Banat

Based on specific statistics, for the potential development of clusters: high percentage of firms in certain fields of activity, local raw resources, the high rate of employment in those fields, a large number of new small and medium-sized enterprises, the turnover in one sector compared to that in another, the existence of support institutions, it has been reached the conclusion that at Banat and especially Timiş county level, it is possible that clusters may form in the future, in the following domains: wood industry, textiles, shoes and software and electronics.

Potential cluster in the wood industry. The rich forest resources in quantity and quality (over 550 000 ha), the tradition in wood processing and the spatial concentration of companies in this domain (~1900 enterprises) represent important premises in the apparition of a cluster. The presence of cheap workforce and the important forests resources attracted foreign investors, with a notable role in the creation of the first network of companies. In most cases, in these networks, local people are occupied with cutting and primary processing of wood and the foreign investors bring the technology and know-how in processing the wood and producing goods with high added-value for the external market. From the total of active companies, over 71, 9% are concentrated in the primary processing of wood and only 28, 1% in the furniture industry. If the companies in the first category have a high degree of dispersion, related to the existence of the raw materials, furniture industry is concentrated especially in those localities where there is an important market for selling it and the possibility of quick access through major communication routes, to international markets.

An analysis of the territorial distribution of small and medium-sized enterprises in the field of wood processing shows a strong concentration in the mountain area which has important forest resources. Many localities from the Almăjului Depression (Bozovici, Prigor, Dalboşeț, Iablanița), from the Timiş – Cerna - Bistra Corridor (Mehadia, Teregova, Armeniş, Zăvoi), from the western part of the Poiana Ruscă Mountains (Pietroasa, Tomeşti, Nădrag) or the Făget Depression (Margina, Mănăştiur, Făget), have saws for cutting logs, or small companies that produce elements of carpentry, wood packaging and other products (Fig. 2).

In many of these settlements, the activities in the wood processing field are the only initiatives in the productive sector. Practically, there is a permanent cooperation between the firms here, the ones that are working in the primary processing and the ones that produce furniture, veneer and plywood. Together with the existing firms, with an important role in developing a successful cluster, are the institutions that offer services to the companies and are taking care of the professional training of the future employees. Among these are: schools (Forest School Group Caransebeş, Forest School Group Timişoara, School Group “Traian Grozăvescu” Nădrag, “Romulus Paraschivoiu” School Group from Lovrin, The school of Arts and Handcrafts from Prigor) and universities (The Faculty of Horticulture from the Banat University of Agricultural Sciences and Veterinary Medicine Timişoara), with specializations in this field, but also other institutions, that sustain the entrepreneurial phenomenon at regional level.

5) ADR West = West Regional Development Agency; ADECS = Economic Development Agency of Caraş-Severin County; ADETIM = Economic Development Agency of Timiş County; OTIMM Timişoara = Territorial Office for Small and Medium-Sized Enterprises and Cooperation of Timişoara, which coordinates the activity of SMEs and cooperation societies in Timiş, Caraş-Severin, Arad, Hunedoara and Bihor counties.

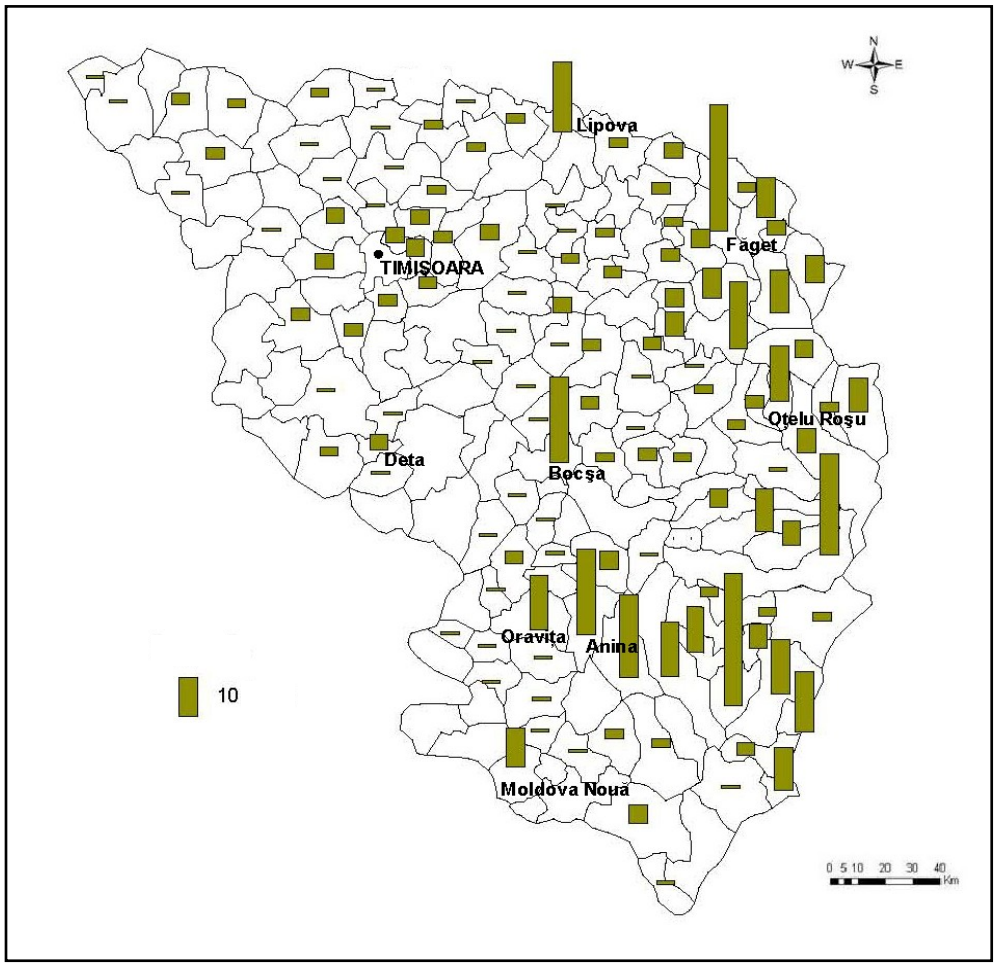

Fig 2 - **The repartition of the firms from the primary wood processing field in Banat (2005) (except big and medium cities)**

Potential cluster in footwear industry. Specialized workforce and the tradition in processing leather and making footwear have been important factors in the apparition and development of private initiatives in this field, after 1989. This domain attracted numerous investors, especially Italians. Having the "Italian district" as a model, they created many small and medium-sized enterprises, especially in the urban areas, in centers with tradition in this field, where in the communist were functioning many factories of this kind (Timişoara, Lugoj), or decentralized sections of these (Buziaş, Recaş, Jimbolia). Under the circumstances of the restructuring of the big footwear companies and the presence of available workforce, the Italians' businesses had a real success in the '90's. The new companies with Italian capital are in fact the result of transferring in Banat production activities with low added value, the main reason being the cheap workforce. Today, these firms collaborate with leader companies from Italy and less with the ones in Banat, but in the future, in the situation of creating excellence centers in the region, that will add value, local cooperation networks can appear. Usually, the companies in this

domain of activity create intensive business relations, leading to the shaping of a successful cluster. In a cluster there must always be leader-companies, capable of mobilizing the rest of the companies in the cluster.

The geographical concentration of the firms in this field, especially the small and medium ones, is an important step in the creation of a cluster. In 2005, the total number of companies in the footwear industry was 176, from which 23.8% with foreign capital. There is a strong concentration of companies in Timiş county (84.1%), especially in Timişoara (42%) and Lugoj (10%) (Fig 3). In the communist era, Timişoara was the second center of this industry after

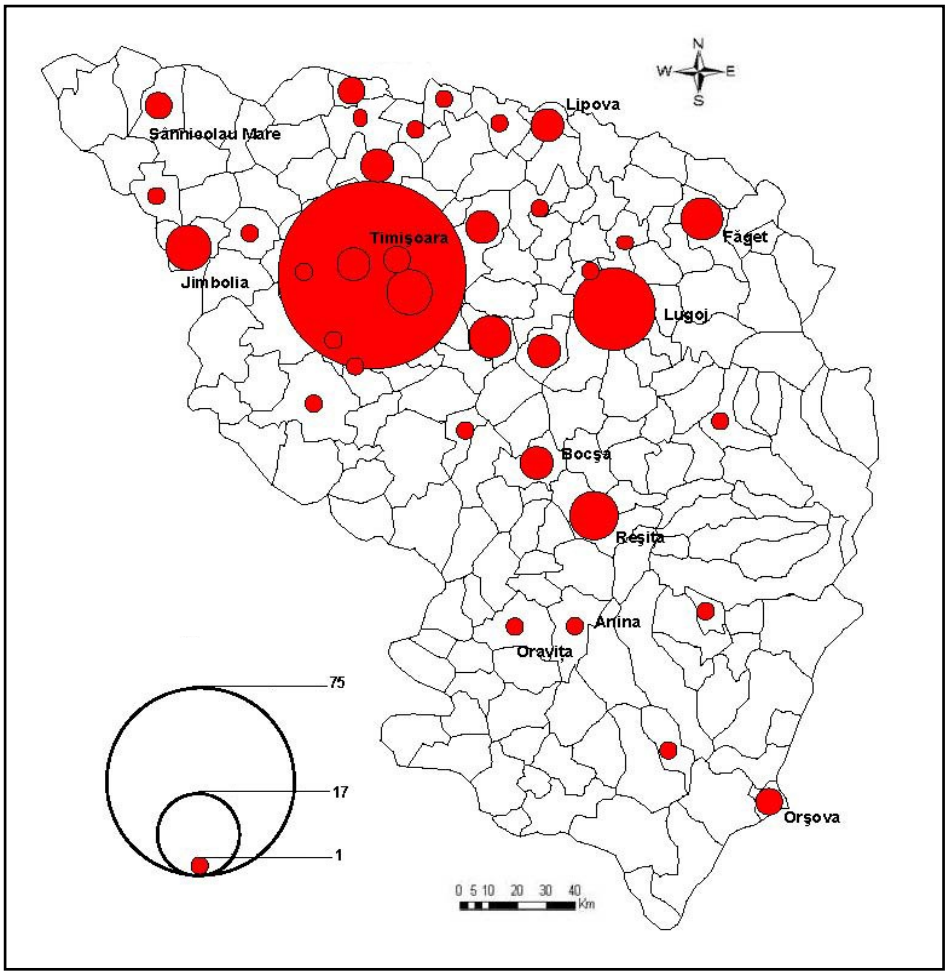

Fig.3 - **Territorial repartition of the firms in footwear industry, in Banat (2005)**

6) Founded in 1900, the shoe factory "Turul" was considered one of the most modern factories in the Austrian – Hungarian Empire, with over 130 branches in Hungary, Germany, Switzerland, England, Holland, France, USA etc. (after I. Munteanu, Rodica Munteanu, *Timişoara: monografie*, Editura Mirton, Timişoara, 2002, p.272).

Bucharest, names like "Guban", "Filty", "Otter" being associated with the name of the city. Tradition companies functioned here: "Banatul" footwear factory (mentioned in 1900 under the name “Turul”[6]), "Modern" footwear factory (created in 1921 under the name "Lux"), Guban etc. Today, some of them (Guban, Banatul) have considerably reduced their activity, or even closed (Modern), leaving a high number of unemployed, which were hired by the new small and medium-sized enterprises. Initiatives appeared in some small towns as well (Jimbolia, Recaş, Făget, Buziaş), by taking sections that belonged to the old state companies.

Only 15,9% of the total number of firms are located in Caraş-Severin county, especially in Reşita (4%) and Bocşa (2%), as well as in other urban centers, with available workforce. This branch still plays a secondary role, compared to the other traditional industries (mining, steel, machine construction, wood processing). In the Banat rural space, most of the firms are placed near Timişoara (Dumbrăvița, Moşnița Nouă, Giroc).

In the light of the things presented, we can draw the conclusion that in Banat, especially in the Timiş county, all the conditions are met for a cluster in the footwear industry to form, even more so because there also exists cooperation between the firms and the institutions that are into education and farming sectors. In five cities (Timişoara, Reşita, Deta, Lugoj şi Sânnicolau Mare), in the high school curricula there are specializations in textiles and leather processing, with a total of 150 places a year. Also, an important link in this cluster could be the ones that are into farming, because they can supply part of the raw material. Today, these relations are incipient, many firms importing their raw material.

Potential cluster in the textile industry. The high number of textile firms (approx 480), their concentration mostly in Timiş county, the presence of many Italian investors, which brought the Italian cluster model, transferring the know-how to the new firms, the implication of many institutions in sustaining the entrepreneurial phenomenon in this field are important premises for the development of a cluster in the textile industry.

The important concentration of companies in the Timis county (75.8%), especially in Timişoara (58%), in the proximity of Timişoara (Sânandrei, Ghiroda, Giarmata, Dumbrăvița, Săcălaz), and Lugoj (4%), appeared in correlation with the traditional centers in this space (Fig. 4).

During the communist period there were many factories in Timisoara, some of them with a long history, which after 1989 underwent a restructuring process, some of them even being closed. The resulting available workforce, its reduced cost and the possibility of using already existent production spaces have attracted a high number of investors.

In Caraş-Severin County, most of the factories are concentrated in Reşita (14%), but they are spread in all the urban centers, the interest of the investors being to integrate and use the available feminine workforce, given the fact that traditionally, in this county, the dominant is the heavy industry.

Considering the fact that this industry is based on processing considerable amounts of raw materials (natural and artificial), it could contribute to the creation of more firms, enlarging the network. The usage of traditional materials (wool, flax etc) would stimulate initiatives in agriculture (sheep farming, textile plants cultivation) and would contribute to strengthening the relations inside the cluster. The use of synthetic fibers and wires, could determine the emergence of relationships with factories that produce these materials.

Potential cluster in software and electronics. Activities in the sectors of software and

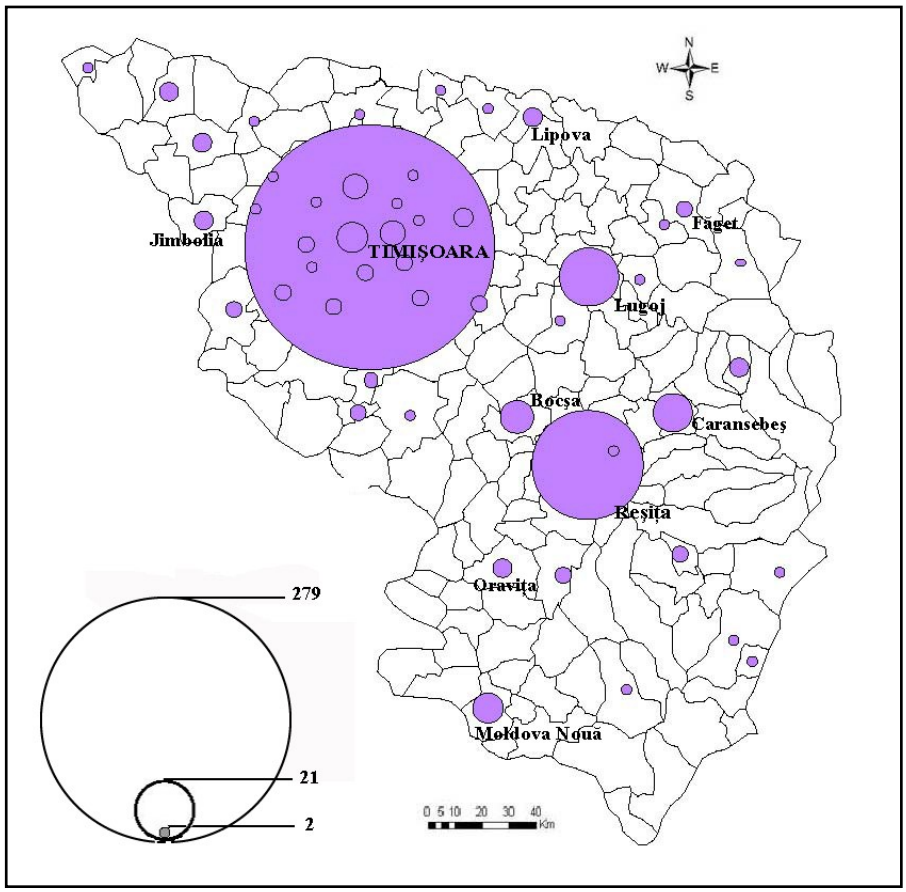

Fig. 4 - **Territorial repartition of the textile industry firms in Banat (2005)**

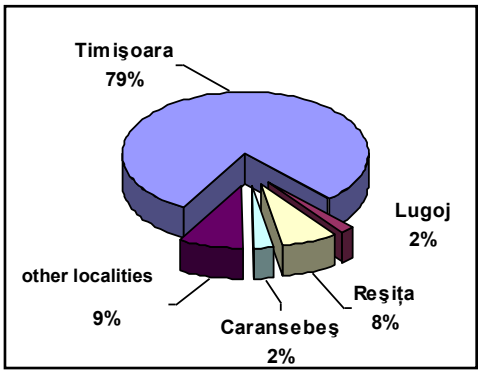

Fig. 5 - **The distribution of software companies in Banat (2005)**

electronics have had, since the '90's, a real success. The presence of “Politehnica” University of Timişoara, which is one of the biggest and most well-known technical universities from

Central and Eastern Europe, and a high number of specialists have been at the base of the spectacular increase of number of the entrepreneurial initiatives in this field. Alongside small firms that appeared as a result of initiatives of former Politehnica students, in Timişoara there are also well-known foreign companies (Alcatel, ABB Rometrics, Siemens, Solectron etc).

The concentration of more than 75% of the firms in Timişoara, the existence of a highly qualified workforce, the developing of a Business Incubator and a Technology Transfer Center in software, the existence of a relation partnership between firms and the "Politehnica" University of Timişoara are important premises in forming a successful cluster (Fig. 5). The role of the Business Incubator is to support the creation and development of small firms founded by the students and young graduates, because, although in Timişoara we can find headquarters of prestigious software firms, they do not have the capacity to absorb the existent IT specialists. The creation of new firms would have the role of strengthening the cluster.

Conclusions

The present analysis underlines the fact that, from the spatial concentrations of companies in the same field of activity to the future clusters there is a small step, if the companies can create the cooperation relations between them and with other regional and local institutions. The development of clusters in Banat will play an important part in the economic growth of the region, on one hand, but will also sustain the entrepreneurial phenomenon, on the other hand. Clusters are environments suited for information, communication, innovation, cooperation in business, offering a higher range of opportunities to small and medium-sized enterprises as a collectivity on important markets than individual companies do. There is more and more evidence to support the fact that small and medium-sized enterprises are confronted with difficulties not because of their size, but because of their isolation.

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THE ROLE OF POLYCENTRIC NETWORK IN THE DEMOGRAPHIC DYNAMIC OF HUMAN SETTLEMENTS

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Abstract: The present study is a concise form of some of the researches conducted within the Interdisciplinary Centre for Advanced Researches on Territorial Dynamics of the University of Bucharest, which had as an objective identifying the relationships between the development of the poles network and the evolution of demographic indicators. The study's objectives are related to identifying the role of decisional impulses from the development poles level in the functional structuring of the local settlements system. The analyses were done at each census level, and the measures adopted by the decision makers in order to stimulate the economy of development poles were underlined. A special attention was given to the communist period, when decisional impulses were followed by immediate effects at the level of dissipative capacity of towns, towards which the investments allocated in order to develop industry were oriented.

Key Words: *polycentric network, demographic dynamic, development poles, territorial management, innovation*

Introduction

One of the major objectives of the European Union is reducing territorial disparities between the centre and the suburbs, an objective to be accomplished through the construction of networks that have the ability of distributing information from the supra-systems level to local level (Geppert K, Stephan A, 2008).

Trullén and Boix consider that the polycentrism is the population and economic activities' tendency to gather in urban nuclei, which start to diffuse influence upon settlements' networks, as well as upon its environment (Boix R, Trullén J, 2003a, 2007).

Territorial development based on several decision centres has seen important differences within the territory, through the distribution of demographic indicators, companies and use of land (Wu F, 1998, Wang X, Kockelman K. M, 2009). The introduction of the concept of polycentric development has led to substantial arguments in the scientific world, regarding the efficiency of the polycentric development model in the process of developping territorial cohesion (Meijers E.J., Waterhout B. W., Zonneveld A.M., 2007, Geppert K, Stephan A, 2008).

Hallgeir considers that the urban network represents the territorial system's spinal column/ spine – polycentrism ensuring the efficient and harmonious transmission of development at the level of the entire territory (Hallgeir, 2004).

Romania's polycentric development model requires a new approach of the territorial management system, through it's reorganization in accordance with the relationships between

the categorized components of the settlements system. The polycentric development strategy represents a way of rehabilitating the areas with major structural problems, ensuring an efficient territorial management, by the spatial projection of institutional mechanisms with competences in territorial development (Peptenatu D., Pintilii R., Cepoiu L., Drăghici C., 2009, Trullén şi Boix, 2003b, Candau F., 2008).

The polycentric development model offers to the decision makers the scientific support for accomplishing major objectives of the Community Area Development Scheme (ESDP-1999): the development of a polycentric and balanced urban system and of a new urban-rural partnership, ensuring equality in terms of access to infrastructure and knowledge, sustainable development, alert management and the protection of the natural and cultural inheritance.

The most important works in the field of polarization have been written by Perroux (1955), Myrdal (1957) and Hirschmann (1958), who underline the importance of development poles in eliminating or mitigating territorial unbalances. Theoretical aspects of polarized development are also treated by Boudeville (1966) and Lasuen (1969), who developed Perroux's concept of sectorial growth poles into regional and sectorial growth poles.

Boudeville tries to translate the sectoral polarization effects with the help of Christaller's (1933) and Lösch's (1955) structural theory of location in geographical space. He starts from the assumption that sectoral polarization is connected to regional polarization, considering that sectoral growth poles resemble regional poles.

Maier K. considers polycentric development an effective way of mitigating territorial unbalance and consolidating the territorial cohesion, by the development of transport infrastructure and by supporting foreign investments (Maier K, 2009).

Ianoş I. identifies two stages of regional development: the polarization or spatial concentration stage (within which an industrial urban process is developed at national level, leading to economic growth), and the integration stage, when a decentralization or a counter polarization takes place, starting from an intraregional decentralization (the industry relocalization in satellite-towns) towards an interregional decentralization (the development of some secondary centres localized in big cities) and finally reaching an intraregional decentralization (Ianoş I., 2006, McCann P., Shefer D., 2004).

The demographic component is the most intolerant variable of territorial system, disturbances at the other components' level influencing the geographic dimension of local territorial systems. This strong relationship has determined the decision makers to adopt specific regional policies, at the European suprasystem level, leading to the shaping of some favorable premises of evolution at the demographic component level.

The importance of polycentric development is obvious in the case of strongly disadvantaged areas where development poles can contribute to the attenuation of economic and demographic unbalance, by the optimal spacial structure.

Ianoş I. and Heller W. carry out a theoretic model of the way in which innovation cotributes to the economic growth of the territory, a model we can extrapolate to polycentric development, where development nuclei contribute to the diffusion of development towards polarized areas. In the authors' opinion, the economical dynamic is dependent especially on the fourth production factor, respectively science, know how, especially on the technological and organizational one. This dynamic depends on the scientific research, having as a premise the

fact that science multiplies by inventions and discoveries, with a direct effect upon economy. For the economic processes to become dynamic, science and knowledge production growth implicitly must be spread, in general (Ianoş I., Heller W., 2006, McCann P., Simonen J., 2005, Dijk J, Pellenbarg P.H, 2000, Broersma L., Dijk J., 2002).

Working methodology

The analysis of the territorial systems' dynamic highlights the tight connection between the demographic component and the mutations at the development poles level. The configuration of settlements systems, the different demographic evolutions represent the direct effect of some economic development policies, which have had as a result the functional structuring of geographic space subordinated to the development poles.

This study consists of a reference of the types of demographic evolution to the network of development poles structured as a result of the convergent action of favourable factors. Identifying the development poles was done based on the coefficient of polarization capacity, depending on which there were identified five categories of development poles in Romania (the capital, national poles, regional poles, interregional poles and growth poles), grouped in five decision levels (Fig.1).

This model's development was based on the theory of dissipative structures, in the interior of human settlements systems being noticed aggregation-disaggregation, concentration-deconcentration, unbalance-functional rebalance processes, which determine a temporary optimization of relationships between its main structures. The intensity of these modifications reflects at the level of settlements systems, the more as it affects the dynamic of growth poles (Ianoş I., Humeau J.B., 2000).

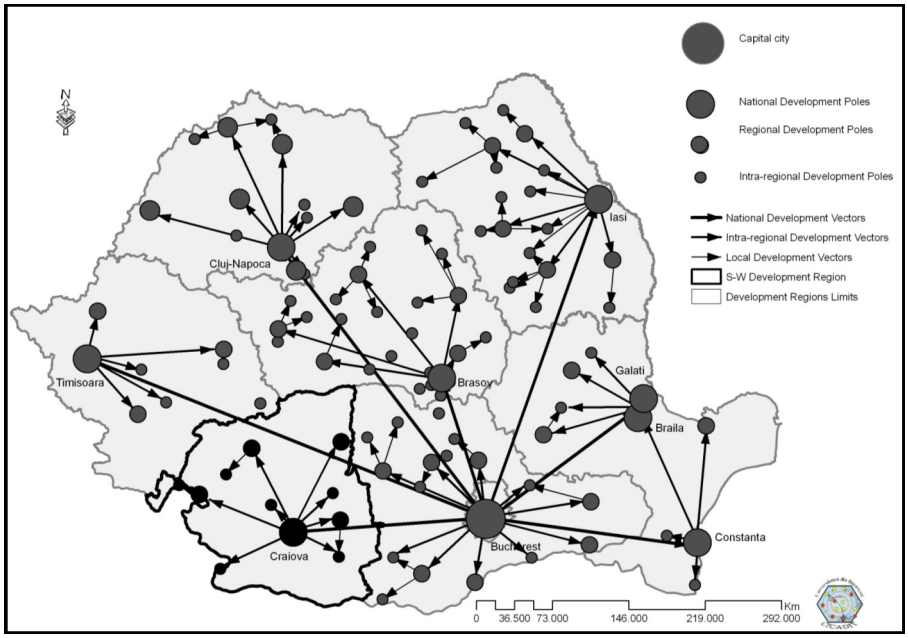

Fig.1 - **Physiognomy of the national polycentric network**

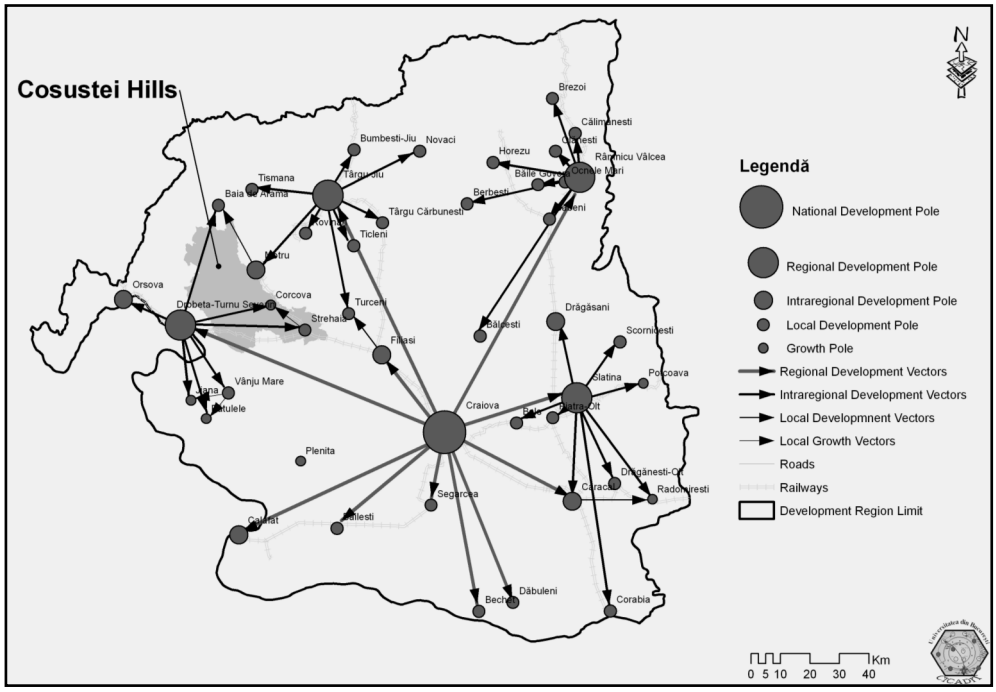

Fig.2 - **The South-West polycentric network**

Identifying development poles was achieved at the level of the year 2002, starting from a complex coefficient: *the coefficient of polarization capacity* which includes the following criteria:

- demographic size and activity;
- economic strength and competitiveness;
- polarization capacity by means of services which belong to the superior tertiary;
- number of inferior rank towns from the area of influence.

The *South-West* polycentric network is coordinated by the town Craiova, with a value of the coefficient of polarization capacity of 53.08, at a rather large distance from regional poles Râmnicu Vâlcea - 52.24, Târgu Jiu - 52.15, Drobeta Turnu Severin - 51.96 and Slatina - 51.95 (Fig.2).

Regional poles imposed themselves within the settlements network by the development, during the communist period, of some industrial activities of national importance.

The designing of the South-West polycentric network led to identifying the profoundly disadvantaged areas, which occupy an important part from the south of the South-Western development region, where a series of development poles were individualised. This could form, in the perspective of several appropriate development policies, some local development poles.

The analysis of demographic indicators was done at the level of all the population censuses: 1912, 1930, 1948, 1956, 1966, 1977, 1992 and 2002. At each census, was trailed the way in

which the changes detected at the development poles' level influeced the level of human settlements from the studied area.

In order to get a detailed analysis, the studied settlements were clasified in a few size categories under 250, 251-500, 501-750, 751-1000, 1001-1500, over 1501 inhabitants.

Results

The Coşuştei Hills is a representative region for two demographic processes specific for the rural areas of Romania: the depopulation of villages (Fig.3) and the demographic ageing. In the study of human settlements of this region we aimed at answering to the following questions: „How did the depopulation of these settlements happen?", „Which are the directions of the population's movement?", "Which are the factors which contribute to the movement of population towards other settlements?" The determinant indicators of the evolution of inhabitants' number, natural movement and migratory movement determined different evolutions in the studied area, estimated on the basis of the population censuses (1912-2002). There were identified four types of demographic evolution: multiannual constantly positive evolution, multiannual sinuous generally ascendant evolution, multiannual sinuous generally descendant evolution, and multiannual constantly negative evolution.

Only two settlements recorded a constantly positive evolution, Comanda and Jirov, settlements which benefitted from the proximity of an urban centre (Strehaia for Comanda and Motru for Jirov). The favourable position of the village Jirov within the commune made this village exceed the commune seat, Corcova. In the case of the village Comanda, the evolution is also determined by the local development potential, which adds to the effect of urban proximity.

Villages which recorded a multiannual sinuous generally ascendant evolution are advantaged by the geographic position, but to a lesser extent. In this category some commune seats are

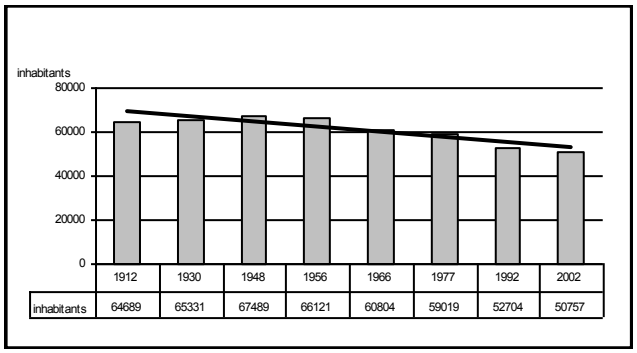

Fig.3.-**The evolution of the inhabitants' number in the Coşuştei Hills**

situated (Broşteni, Corcova, Floreşti), where the advantages of geographical position and those of the administrative function acted, and a series of villages advantaged by the position in relation to communication ways (Câmpu Mare, Ciochiuța, Croica, Ercea, Cordun etc.), which determined permanent movements towards these villages.

Most of the settlements from the Coşuştei Hills are positioned in the categories that have the decrease of the inhabitants' number (over 65%) as a central element. Several settlements recorded continuous decreases of the inhabitants' number, and the authorities assume that many of these do not have development perspectives(Alunişul, Bârda, Bobaița etc.). The lack

of perspective is determined firstly by the natural degradation of demographic potential, which numbers in some villages is under ten inhabitants and high demographic ageing coefficients. In the case of other settlements, even if they recorded the same fall, there are perspectives of demographic re-balancing, through the support of some economic activities which could help settle young population (Borogea, Crăgueşti, Ilovăț etc.).

A multiannual sinuous generally descendant evolution is recorded in some villages which in certain socio-economical conditions recorded an increase of the inhabitants' number; it is about the pro-natality policy of the communist period. The following villages are grouped in this category: Bădițeşti, Bala, 23 August, Brateşul, Brativoieşti, Brața, Budăneşti, Cărămidaru, Cârşu, Căzăneşti, Celnata, Cernaia, Cervenița, Ciovârnăşani, Cocorova, Colibaşi, Comăneşti, Cotoroaia, Crainici, Cremenea, Şişeşti, Şovarna.

At the *1912 census,* 28.3% of the settlements had a population under 250 inhabitants, among these settlements being a commune seat, too: Floreşti (Fig.4). In the same category, there were a series of villages, namely: Măru Roşu, Croica, Prunaru, Jignița, Peşteana. In the category 251-500 inhabitants, there were 35.7% from the settlements, from among which two commune seats: Husnicioara and Căzăneşti. In both categories there are placed peripheric settlements compared to the communes' seats.

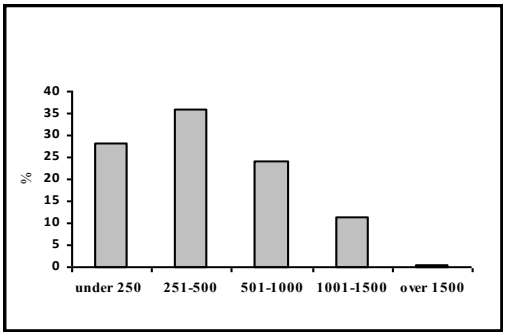

Fig.4 - **The human settlements structure by inhabitans number at the 1912 census**

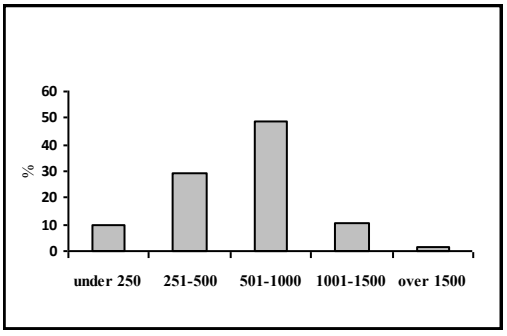

Fig.5 - **The human settlements structure by inhabitants number at the 1930 census**

The category 501-1000 gathers 24% of the settlements, among which commune seats and villages with an important local potential: Ciovârnăşani, Corcova, Broşteni, Prunişor, Voloiac, Zegujani etc. The cathegory 1001-1500 gathers 12% of rural settlements which are the most privileged by the local potential and geographic position point of view (Comanda, Ciochiuța, Malovăț, Jirov, Şişeşti etc.).

Over 1501 inhabitants were registered in Şovarna village, which represented and still represents a local polarization centre, both for the Coşuştei Hills and the Mehedinți Plateau.

In this period, the intensity of the attraction force of development poles is reduced, there are noticed movements of the population towards the development poles Bucharest and Craiova. It is the period of an important dynamic between the settlements in this area.

The 1930 census does not mention 26 villages which became components of other rural settlements. Most of them had under 250 inhabitants, except for the villages Comanda and

Ciochiuța (they are part of Strehaia town), which had over 1000 inhabitants each. This grouping was not successful in reviving these settlements, many of them continuing the demographic decrease. This administrative intervention has as a result the reducing to 10.1% the settlements are situated in the class under 250 inhabitants (Fig.5).

The category 251-500 inhabitants comprises of 29.1% of the settlements. The evolution of some settlements resulted in their crossing from the first category (under 250 inhabitants) to the category 251-500 inhabitants (Suharu and Măru Roşu).

The class 501-1000 inhabitants groups, at this census, 48.8 % of the settlements. The important progress of almost 50% is determined by the natality increase in some villages, but also by the demographic input of the villages administratively added to them. The Ercea village has a spectacular evolution of the inhabitants' number, from 274 in 1912 to 568 in 1930. With few exceptions (Bala, Racova, Ohaba), all other villages recorded spectacular growth of the inhabitants' number.

Eight settlements are situated between 1001 and 1500 inhabitants, which represents 10,3% from the settlements. The decrease is due to the moving/ passing of some settlements in the superior category (Ilovăț, Şişeşti). It is to be noticed that even if they remained in this size category, most of the villages recorded a decrease in the inhabitants' number compared to previous census. Only Crăguieşti village recorded a slight growth of the inhabitants' number, determined by the natural balance. The category of over 1501 inhabitants gathers three settlements, all of them important centres of local polarization, significant local development resources. The village Şovarna stands out through its over 1800 inhabitants, a record number for a village in this area.

In the interval 1912-1930, clear directions of the population movement towards development poles appear. A significant growth is recorded in this interval: Timişoara, Reşița, Drobeta Turnu Severin.

The 1948 census start to be recorded evidences of the demographic decline of the villages from the Coşuştei Hills.

The category under 250 inhabitants now gathers 30.5% of the human settlements. The villages Stroieşti and Iupca have a major demographic decline, which makes them descend from the interval 501-1000 inhabitants.

In the category 251-500 inhabitants there are included 28, 6% of the settlements, the decrease favoring the previous group (Fig.6). Many villages fall in this category from the category 501-1000 inhabitants (Imoasa, Negreşti, Căzăneşti, Govodarva, Ercea etc.). The interval 501-1000 covers 31.4% of the settlements, the diminution towards previous census being done in the favour of previous groups.

Superior intervals (1001-1500 and over 1501) record important mutations. Only one settlement (Şişeşti) exceeded 1501 inhabitants, and 9 settlements exceeded 1001 inhabitants, but the decrease of the inhabitants' number is important, these exceeding this threshold at the limit.

In this interval there are movements of the active population towards the towns Timişoara, Craiova, Reşița and Drobeta Turnu Severin.

The 1956 census shows the accentuation of the previously mentioned phenomenon. Thus,

27.6% of the settlements had a population under 250 inhabitants, and 34.1% of the settlements had between 251 and 500 inhabitants (Fig.7). The decrease of the inhabitants' number is general for both size intervals. The same phenomenon characterizes superior intervals, where 33.3% of the settlements have between 501 and 1000 inhabitants and only 7% between 1001 and 1500 inhabitants. The village Şişeşti is the only one which exceeds the threshold of 1501 inhabitants, even if it has had an important decrease of the inhabitants' number.

After 1950, an accentuated process of industrial development of the centres which were regional seats (region seats and district seats) begins. They benefitted of priority in the allocation of funds for development. The overplus of jobs recorded at these development poles' level determines the circulation of population towards several towns, whereas the demographic ageing of the settlements from the Coşuştei Hills is more visible.

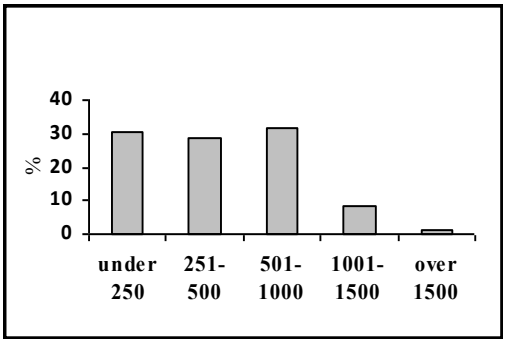

Fig.6 - **The structure of human settlements by the inhabitants' number at the 1948 census**

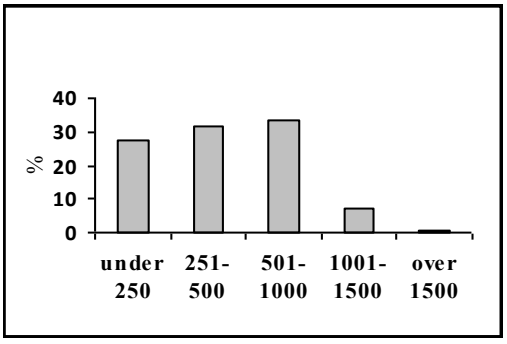

Fig.7 - **The structure of human settlements by the inhabitants' number at the 1956 census**

At the *1966 census*, 36.2% of the settlements had a population under 250 inhabitants, and 29.5% had between 251-500 inhabitants. Some settlements record real demographic shocks, the population being reduced with 25% compared to the previous census (Alunişu, Drăgoteşti, Roşia etc.). Within the size interval 501-1000 inhabitants, 27.6% of the villages are enclosed, and in the interval over 1001 inhabitants, which is now the last, 6.7% of the villages (Fig.8). The village Şişeşti, even if it maintains its supremacy, it descends under the threshold of 1501 inhabitants.

The accentuation of the development gaps/ differences determines the decision makers to direct, after 1970, important investments towards medium sized towns. Within this interval there is to be mentioned the attraction force of the towns Craiova, Târgu Jiu, Motru, Drobeta Turnu Severin, which impose by the deficit of workforce, which attracts active population from the settlements from the Coşuştei Hills.

The 1977 census emphasizes the high share of the villages having under 250 inhabitants (38.1%) and between 251-500 inhabitants (27.7%) (Fig.9). The interval 501-1000 inhabitants groups 29.5% from the settlements, many of them being from superior intervals. Over 1001 inhabitants are registered in 7 villages, the supremacy being held by the village Jirov, which hardly exceeds 1300 inhabitants.

At this census, it can be noticed the development of some settlements such as Ciochiuța,

Comanda (near Strehaia) and Malovăţ (near Dr.Tr. Severin), which „felt" the economic development of the neighbouring urban centres.

The industrial leap of development poles Craiova, Drobeta Turnu Severin, Motru, Reşiţa, Filiaşi, Târgu Jiu induced the accentuation of the demographic decline in the Coşuştei Hills. Permanent movements of the active population towards these centres take place. Real networks emerge, through them, opportunities of occupation within development poles are constituted.

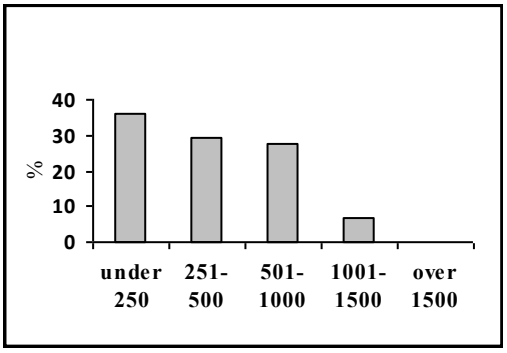

Fig.8 - **The structure of human settlements by the inhabitants' number at the 1966 census**

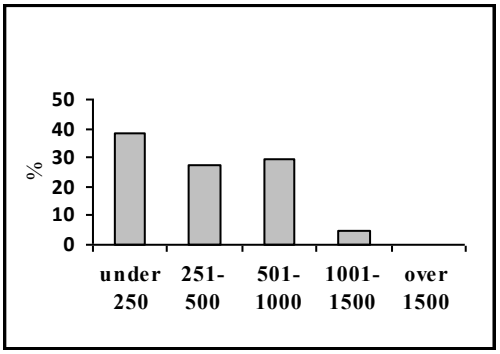

Fig.9 - **The structure of human settlements by the inhabitants' number at the 1977 census**

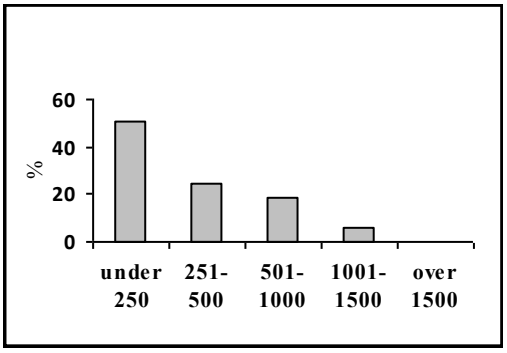

Fig. 10 - **The structure of human settlements by the inhabitants' number at the 1992 census**

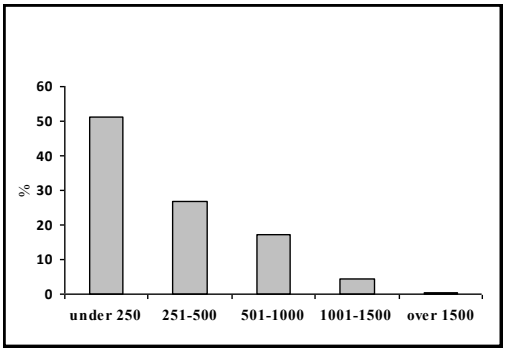

Fig. 11 - **The structure of human settlements by the inhabitants' number at the 2002 census**

The 1992 census shows the major demographic decline recorded in this area where 50.5% of the settlements have a population under 250 inhabitants, and 24.5% have a population between 251 and 501 inhabitants (Fig.10). Only 19% is represented by villages with a population between 501 and 1000 inhabitants. Over 1001 inhabitants are registered in only 6 villages, whereas in 4 of the villages the population is decreasing. The village Comanda holds the first place due to the increase of the inhabitants' number. A less spectacular increase is registered by the village Jirov, due to the natural balance recorded by the gipsies' community.

After 1980, industrial enterprises are opened in all small towns. A new stage of industrialisation of rural localities in the perspective of their transformation into urban centres begins. The

investments done at the level of the communes Căzăneşti, Corcova, Broşteni, Şişeşti, Malovăț determine the reduction of the active population movement towards development poles. The exceptions are the movements towards Bucharest and Timisoara, which maintain at high values.

The last census, *the one from 2002*, shows the growth of the percentage of the villages under 250 inhabitants, which reaches 51.4%, 13.3% of the villages having a population of under 100 inhabitants (Fig.11). Next interval (251-500 inhabitants) registers a significant growth, weighing 26.7%. The villages with a popualtion between 501-1000 inhabitants represented only 17.1% from the total of settlements. In the same note, superior categories are grouped, where only 5 villages had a population over 1001 inhabitants, and of these, only one village has over 1501 inhabitants (Jirov).

From the detailed analysis presented above, it can be noticed the general tendency of growth of the number of villages with a population under 250 inhabitants and of those between 251 and 500 inhabitants. The evolution is determined by the lack of resources and of capitalization of the existent ones on local scale, and also by the attraction exerted by urban polarizing centres.

Industrial destructuring registered after 1990, at the level of development poles, leads to profound mutations at the level of human settlements from the Coşuştei Hills.

The previous evolution of the polarized development process contradicts economic theories of attenuating territorial unbalance by sustaining development poles, the increased imbalance being obvious. This phenomenon takes place when these poles have a reduced capacity of diffusing development towards the subordinated area. In the studied area, the action of development poles Drobeta Turnu Severin and Motru is obvious. Through their economic structure, these two development poles succeed to diffuse information in the territorial systems from the Coşuştei Hills, and consequently to contribute to the functional restructuring of space.

Even if the process of development diffusion is incipient, the process is evident in the higher and higher consistency of investments achieved in the Coşuştei Hills in economic activities which serve the two polarizing centres. It must be added that the population from the two development poles is interested in returning to the villages with a good accessibility.

Although these tendencies are well contoured, the intensity of these processes cannot balance the depopulation and demographic ageing processes. In isolated territorial systems, these processes exceeded the critical level and they remained dominant, variable components of the system being unable to react to external decisional impulses.

The perspective of developing a regional polycentric network will create the premises of information diffusion from the level of development poles Drobeta Turnu Severin, Motru, Strehaia, Baia de Aramă, Târgu Jiu towards certain territorial systems from the Coşuştei Hills, which benefit from a series of advantages determined by the favourable position towards main transport axes. The settlements Corcova, Sişeşti, Broşteni, Malovăț, Ilovăț are in this situation.

Conclusions

The systemic approach of human settlements from the Coşuştei Hills highlights the extent to which the transformations from the development poles level influence rural systems, most of them affected by depopulation and demographic ageing.

The studies of the relationship between processes at the development poles level and the subordinated localities underline the direct dependence relationship.

Before 1989, the relationship between development poles and the settlements from the Coşuştei Hills were strongly influenced by the agriculture cooperativization, socialist industrialization and the orientation of resources towards megalomanic projects. Also, these relationships' structure was determined by the historical proportion between resources, population and infrastructure quality (Ianoş I. and Heller W., 2006).

During the communist period, development poles registered a diversification and functional enlargement which determined the attraction of potential and human capital from the subordinated rural settlements, which confront a functional reduction. The agriculture's cooperativization determines the reduction of personnel for an important percentage from the occupied population from agriculture.

The local settlements network from the Coşuştei Hills records important decisional impulses in the period 1948-1950, when central authorities direct big investments at the level of regional centres. It is the period when the town Craiova records an important deficit of work power, which is covered especially from the rural area (Fig.12).

The town Motru is founded on an empty land, in order to coordinate the mining activity from this area. It is the town which attracted, with different intensities, the active work power from the rural settlements around.

After 1970, the policy of the centralised state is oriented towards investments in small and medium sized towns, under the circumstances of increased attraction forces and the accentuation of demographic decline. The towns Strehaia, Baia de Aramă, Filiaşi add to other development poles and contribute to rural settlements impoverishment with regards to active population (Fig.12).

After 1980, an ample small towns industrialization process begins, aiming at consolidating their position within the local settlements systems. In these conditions, forces exerted by the well known development poles diminish. In the studied area, the towns Baia de Aramă and Strehaia develop, and around the communes Malovăţ, Corcova, Broşteni, they contribute to the reduction of migratory flows towards major development poles.

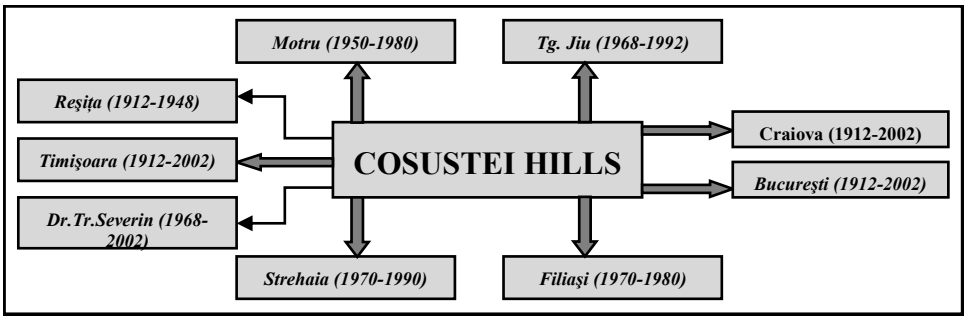

Fig.12 **- Orientation of the population flows**

The radical modification of the socio-economic system from 1989 led to a confusion of the human settlements system, under the impulse of populist measures from the transition period.

The years 1990-1991 are characterised by an increase of the number of employees in the industrial sector, although national economy gives clear signs of decline. During those years, the number of exits from the studied area increase significantly. Between 1992-1999 a collapse of national economy takes place, first reductions within employees sector appear, as well as first population displacements from the polarising centres towards rural area.

The reduction of subsidies in the mining industry determined the dramatic reduction of this activity and consequently of the regional importance of the town Motru, as many recent unemployed return to rural area.

After the year 2000, a new vigor of national economy is felt especially at the level of towns. The flows of migration towards development poles are continued especially to Bucharest, Craiova, Motru, Drobeta Turnu Severin and Timişoara.

There can be noticed the functional restructuring of territorial systems near the towns Drobeta Turnu Severin and Motru, which benefit from a series of private investments in economic activities which serve for these towns situated in full economic development.

The development of polycentric network in the South-Western Development Region may contribute to systems' revitalization by creating positive imbalance, which then, by propagation effect, would support the development of all territorial systems.

The development perspectives of the settlements from the Coşuştei Hills are connected to the decision factors' capacity to restructure the territorial management system according to the new European context, and to promote pragmatic, sustainable, coherent development policies in the area, at a level which could ensure the systems' revitalization, and even the transformation of some of them into growth centres.

The preoccupation of the decision makers for the consolidation of the regional polycentric network, will lead to the structuring of an efficiet system of transmitting the innovations and good practices from the European suprasystem's level to the local level, this way contributing to the rehabilitation of rural systems which benefit from a local context, favourable to development.

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EVOLUTION OF THE URBAN SYSTEM OF BOTOŞANI COUNTY

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Abstract: The Botoşani County is part of one of the most marginal and least developed NUTS II regions of the EU. The county itself is one of the least developed within the region. However, it has an interesting history and evolution and a geographical position which can become an opportunity for economic, social, cultural and urban development. The urban structure is now, rather fragile and vulnerable to present social and economic trends and crises. During the last 80-90 years, under the impact of political changes and influences, the urban system was subjected to artificial and not always sound and durable developments. The pre-eminence of political, administrative and economic factors led to competition among the main urban centres which had as result winners and losers. The lack of specific urban development policies created in the end a mono-centric and unbalanced urban system. Recent decisions create premises for future evolutions towards a more coherent and cohesive system if sound strategies and policies are implemented by local authorities.

Key Words: *human settlements, urban system, territory, Botoşani County, North-East Region, Romania*

Geographical position and general data

Botoşani County is located in the extreme North-eastern corner of Romania, at the border with Ukraine to the North and Republic of Moldova to the East (Fig. 1). In terms of surface and population, the county is one of medium-low size. With 4,986 sqkm it ranks the 29th among the 41 counties of Romania[1)]. In terms of demographic size, it ranks on the 22nd position, with 448,749 inhabitants in 2010[2)]. It is crossed by the 27th degree meridian and by the 48th degree parallel.

The county is part of one of the eight development regions of the country: North-east Region, which is among the least developed regions of the European Union. It is also the smallest, in both terms of surface and population among the 6 counties of the region. During the last period of time, the North-east Development Region in Romania has shared the last places among the European Regions according to the GDP /inhabitant expressed in PPS[3)] together with the Severozapaden Region in Bulgaria. In 2007, the North-east Region slightly overcame the threshold of 25% of the average GDP of EU27. Though, Botoşani County is part of an area which is not only a geographical extreme at the Eastern border of the EU, but also a negative pole of economic and social development of the EU. It is worth to notice actually that the 4 extreme Eastern regions of the EU (North-east and South-east Muntenia in Romania and

1) Romania is divided into counties, towns and communes. It has 41 counties, 320 cities and towns and 2860 communes (according to the Statistical Yearbook of Romania, 2009). The 41 counties and the capital city of Bucharest are NUTS III administrative units. There are also divisions of 8 development regions (NUTS II level) and 4 macro-statistical regions (NUTS I level), which are not administrative units.

2) Population of Romania at 1st of January 2010, INS (the National Institute for Statistics).

3) Purchasing power standards, according to Eurostat data. Eurostat Newsrelease, February 2009 and February 2010.

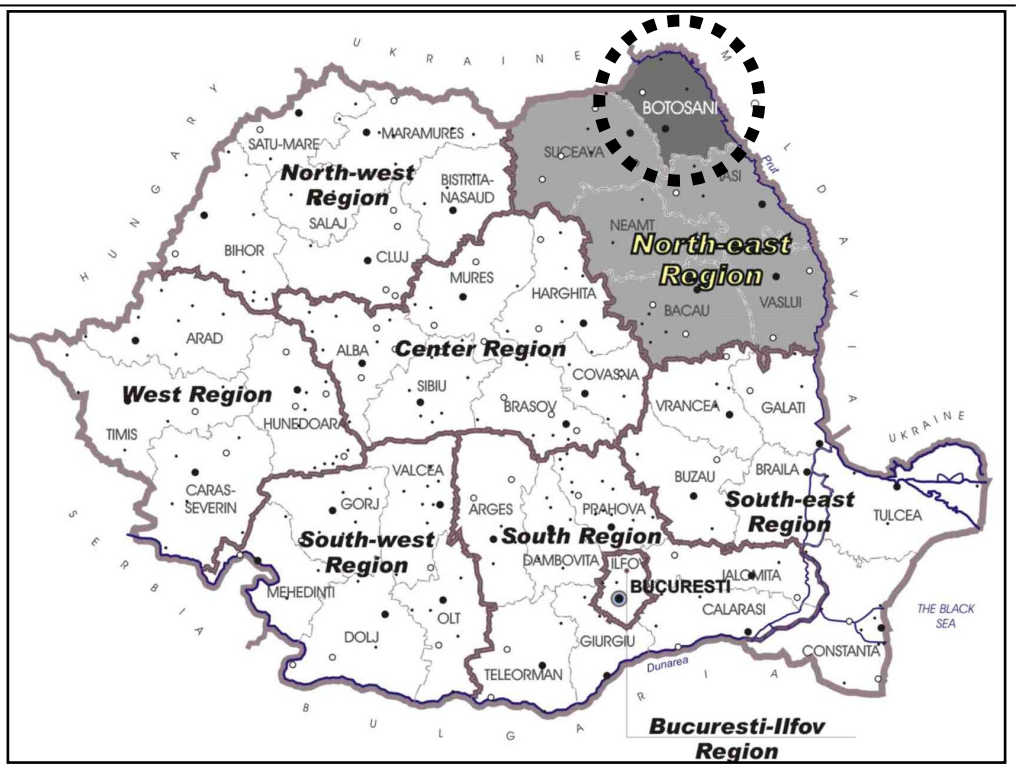

Fig. 1- **Position of Botoşani County in Romania and in the North-East Region**

Severoiztochen and Yugoiztochen in Bulgaria) are among the 10 least developed regions of the European Community (Fig. 2) according to the most recent data of Eurostat.

Since 1998, when the 8 development regions have been set up in Romania, the North-east has held the last position in terms of level of economic and social development. In fact, the gap between North-east and the other regions has increased during the following decade as described in Table 1 and represented in Figure nr. 3. In terms of difference, as percentage of Romanian GDP /inhabitant, the gap between North-east and Bucureşti-Ilfov Region has almost doubled in 2007 as against 1998 and in terms of proportions it increased from 2.0 in 1998 up to 3.5 in 2007. Botoşani County is also since 1998 one of the least developed counties of Romania and of the region too. In 1996, the first study on regional disparities in Romania ranked Botoşani County as second last by the General Index of Development[4)] computed for 1994 year. Its position within the region has not improved since, being the 5th among the 6 counties of the region (the 6th is Vaslui County, which was ranked on the last position in 1994 too). In 2007, it ranked on the 38th position among the 41 counties (Bucharest not included).

The GDP /inhabitant of Botoşani County, in 2007 represented 85.5% of the regional GDP /

4) The Global Development Index has been computed on the basis of a number of 17 indicators, using a standardizing statistical method and computing a Hull score. It has been published in the report on "Regional Disparities in Romania" (Rambøll, 1996).

inhabitant and only 54% of the national GDP /inhabitant[5)]. The present condition of the county is due mainly to its peripheral position, combined with weak accessibility, poor infrastructure and an economy mostly based on primary sector. It also has a rather low level of urbanisation, being ranked among the ten most rural counties in Romania.

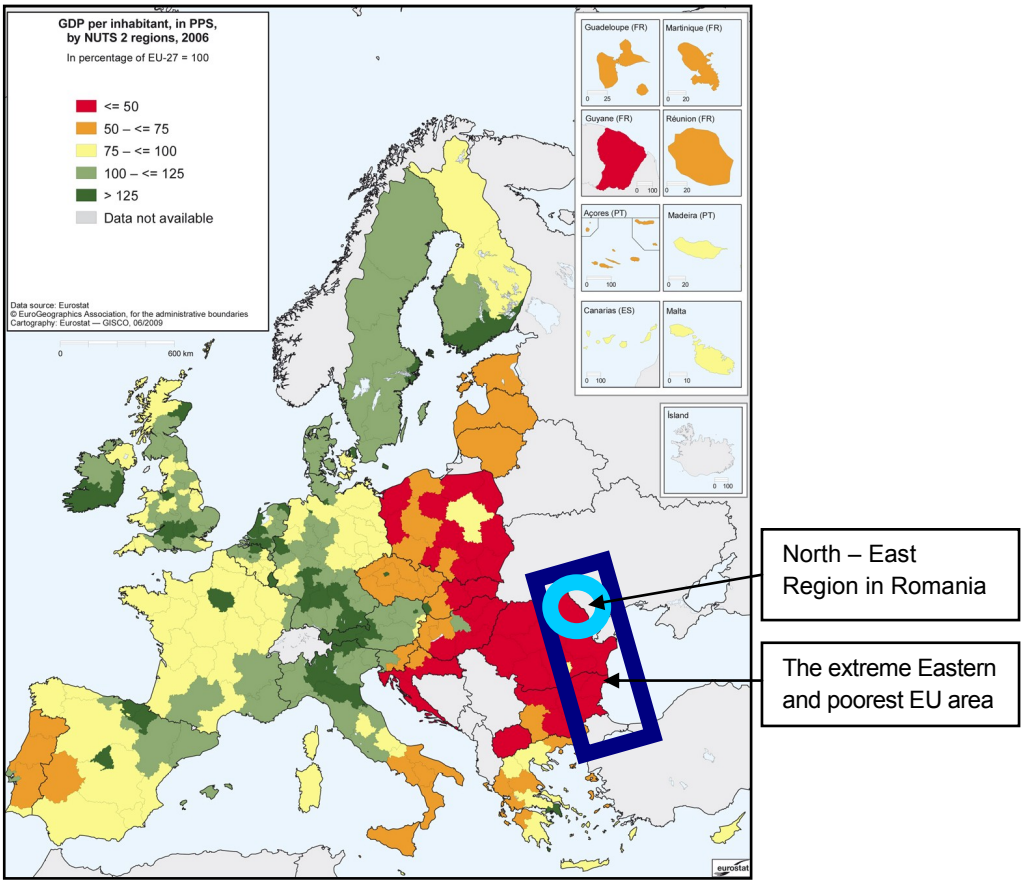

Fig. 2 - **Position of the North-East region in EU**
(on a map from Eurostat regional yearbook 2009)

The geography of the county is characterised by low altitudes, 80% of the county being part of the Moldavian Plain, having 100 to 300 meters height, whiles the rest of 20% is being covered by low hills of 400 to 600 meters height, in the West side along the Siret river. A transversal section of the county shows a general slope form West to East, form the Siret Hills area to the low valley of the Prut river, which actually forms a long border of around 195 km to North and East. There is also a smoother slope of the land going form North-west to South-east, which determines the general flow of the main waters of the county, most of them being part of the Prut river basin (Fig. 4). There is a very strong connection between the geography and the

5) Data computed on the basis of statistical data from the Romanian Statistical Yearbook, 2008 and 2009.

main waters network of the county and the spatial structure of the human settlements (Fig. 5). Most of the settlements of the county are concentrated within the high plain areas of West and North whereas the rest developed along the valleys of the main rivers: Jijia, Başeu, Sitna and Prut.

Table 1

Evolution of GDP /inhabitant as % of Romania 100% GDP

Development regions	Year of reference		
	1998	2004	**2007**
Bucureşti-Ilfov	**162.2**	**191.5**	**222.8**
West	100.9	114.7	**115.7**
Centre	105.9	104.2	**101.4**
North-West	95.5	97.2	**96.4**
South	85.8	83.4	**81.6**
South-East	100.1	90.7	**81.0**
South-West	90.0	83.3	**78.2**
North-East	**79.8**	**69.2**	**63.9**
Difference of extremes in %	82.4	122.3	**158.9**
Report between the extremes	2.0	2.8	**3.5**

Source: *data for 1998 and 2004 are from the Regional Operational Programme 2007-2013; data for 2007 are computed according to data from the Romanian Statistical Yearbook 2009.*

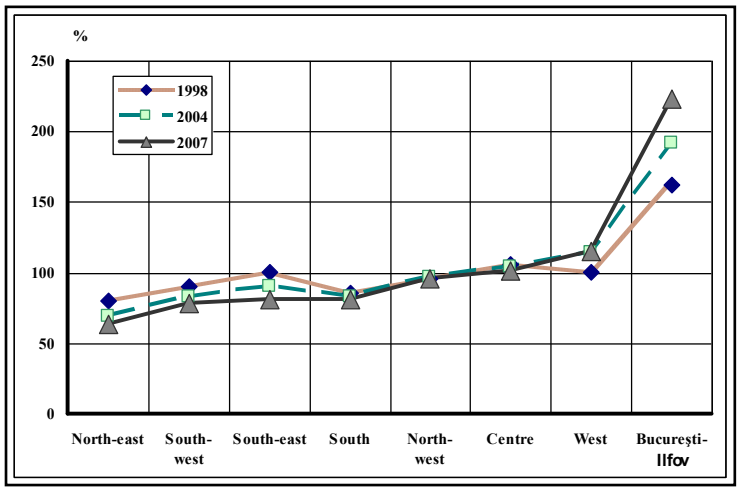

Fig. 3 - **Evolution of regional GDP /inhabitant between 1998 and 2007**(data for 1998 and 2004 are from the Regional Operational Programme 2007-2013; data for 2007 are computed according to data from the Romanian Statistical Yearbook 2009).

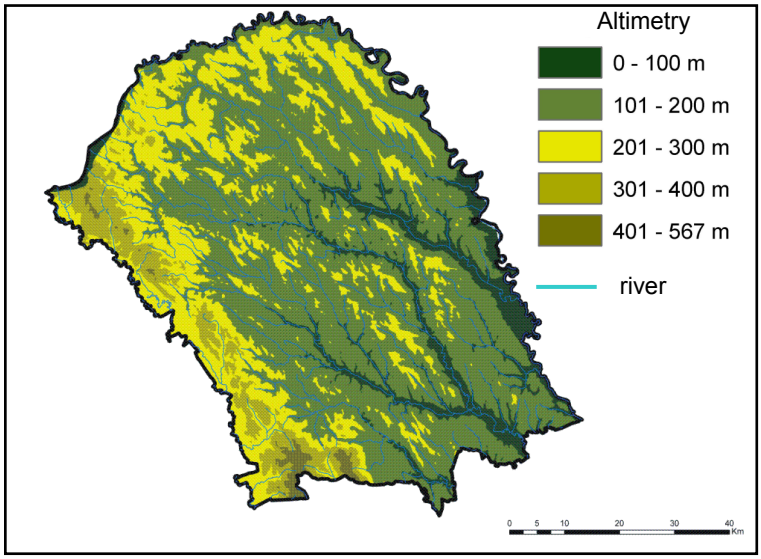

Fig. 4 - **Geographic map of Botoşani County showing the general North-west to South-east slope. The highest point is located in the South-western corner – Tudora Hills** (map designed by CICADIT, 2009).

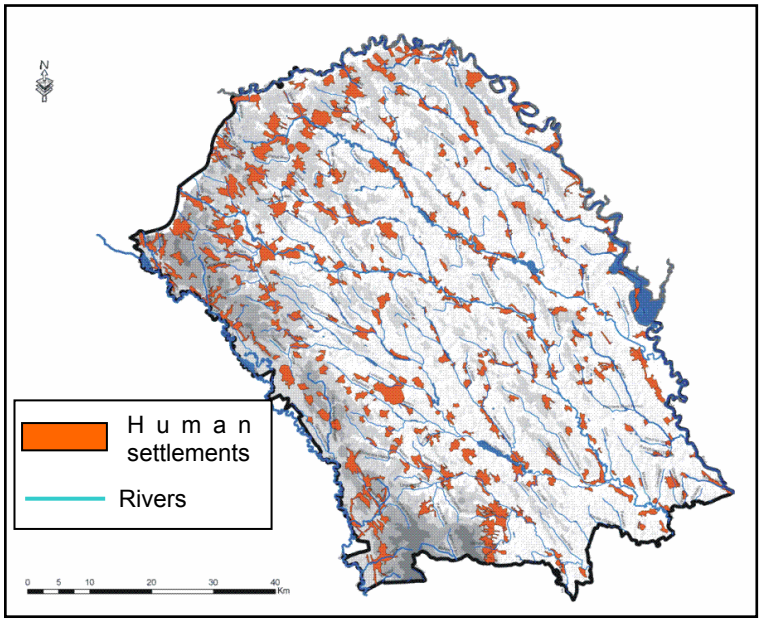

Fig. 5 - **Geographic map of Botoşani County showing the general North-west to South-east direction of the water flows** (map designed by CICADIT, 2009).

Historic evolution of the administrative territory

The present territory of Botoşani County as it is now, is only 40 years old. During several centuries of documentary records, there have been various stages of administrative and territorial changes. In spite of its geographical continuity and homogeneity, the present territory has been artificially divided into two counties: North and South. However, within few interruptions **"the county"** as the most important sub-state level of administrative organisation survived along the centuries.

The first historic records of administrative organisation are from the 14th and 15th century and refer to two main counties: Hârlău, corresponding to the southern part of the county and Dorohoi, covering the northern part of the present territory. The two entities have lasted with various minor changes until the end of the 4th decade of the 20th century as part of Moldavian State until 1859, then of the so called Unified States of Moldavia and Walachia until 1881 and than as part of the Romanian Kingdom until 1947[6]. Their western, northern and eastern limits were defined by natural boundaries: the rivers Prut (East and North) and Siret (to the West). These natural limits were a stable element for defining the shape and size of the two administrative units (minor variations were registered on the North-western corner). The southern boundary was more flexible and varied a little bit during the history. In the 17th century, Hârlău County was divided and Botoşani County was set up. The town of Botoşani became the capital city, replacing the previous one Hârlău, a commercial town that started to decay. The new capital preserved its status until 1938, whereas Dorohoi has been replaced by other towns for a short period of time in the first half of the 19th century. For all that time the two capitals have been the main urban centres of the two counties. During the 19th century some other settlements got the status of town or "târg" (small commercial town) and territorial roles as "plasa" centres[7]: Mihăileni (which was also capital of Dorohoi County from 1835 to 1950), Darabani and Săveni in the second half of the 19th century, but most of all Ştefăneşti, also known as Ştefăneştii and Ştefăneşti Târg, which is mentioned as an important settlement since the 16th century. It is said that by the beginning of the 17th century, the settlement "had 2,000 dwellings, an equivalent of 10,000 inhabitants" (Giurescu, 1967). It is named a town by various historians of the 17th and 18th centuries[8]. Yet, its evolution was regressive and by the beginning of the 19th century it was not mentioned any more as an important settlement. It recovers for a short period of time during the first half of the 20th century. Some basic features of these towns were the commercial character and the important weight of Jewish population. During most of the time the urban structure of Dorohoi County has been more developed and balanced than the one of Botoşani County.

First significant administrative changes have occurred during the 3rd decade of the 20th century, due to frequent political changes and attempts for an optimum administrative pattern for the Romanian Kingdom, which grew much larger after the 1918 unification. Due to the increase of the territory of the country after the unification, the two counties were no more extreme border counties and the different attempts of administrative reorganisation have created new links and subordinations as they were integrated into various higher administrative levels. In 1929, an administrative reform[9] set up a regional level named "ministerial directorates" and placed them

6) Most of the information is based on the preliminary studies for the Botoşani County Territorial Physical Plan, *Historic evolution of Botoşani County*, Quattro Design, 2009.

7) "Plasa" is a traditional form of intercomunal organisation, with or without administrative status, along history. A larger commune or a town was a kind of a "central place".

8) C. Giurescu (1967), quotes Miron Costin, who names it a town (miasto in Polish) in 1684 in his *"Poema Polonă"* (The Polish Poem) and Dimitrie Cantemir, who calls it "oppidum" in *Descirptio Moldavie* (1714).

9) Law for local administrative organisation, from the 3rd of August 1929.

in two different regions: Dorohoi was better connected to the northern territories of Bucovina region and to the city of Chernivsti, whereas Botoşani stayed connected to the southern part and to the city of Iaşi. Although this administrative structure did last two years only, it was soon followed by another Administrative Law, in 1938, with a higher impact. The 1938 Law[10] reduced the importance of the counties and set up larger regional units called "ţinuturi" (Fig. 6b). The two counties have been once more integrated in two different "ţinuturi": Dorohoi in Suceava (the capital was Chernivtsi) and Botoşani in Prut (the capital was Iaşi). In 1940 there has been again a come back to the previous territorial structure with counties being the most important administrative sub-national level. But after the fall of the monarchy in 1947, a new administrative model, of Soviet influence, was put into place. Once more large regions were set up as major territorial units, and counties were abolished and replaced by smaller units called

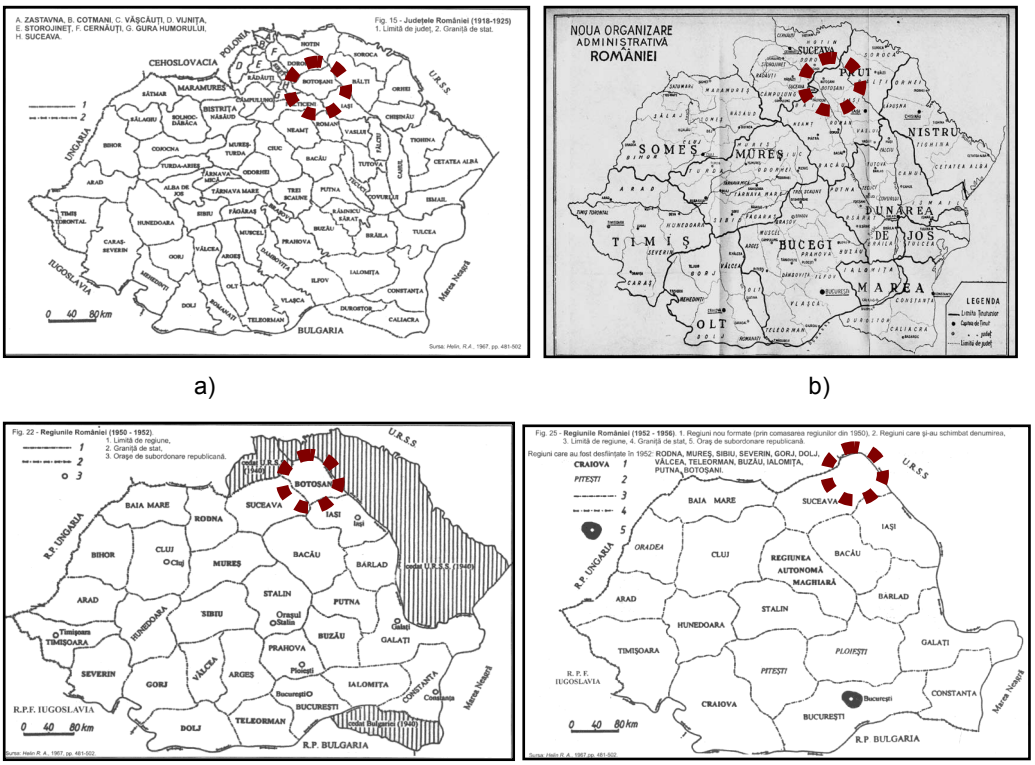

Fig.6 - **Maps of different stages of evolution of the administrative territory of Botoşani County** (a – Botoşani and Dorohoi counties as separate administrative units in the '20s; b – the two counties as parts of Suceava and Prut "ţinuturi"; c - the two counties as part of the Botoşani region in 1950; d – the two counties were dissolved within the region of Suceava from 1952 to 1968).

10) Administrative Law from the 14th of August 1938, was adopted on the bases of a new Constitution of the so called Royal Dictatorship of Carol the 2nd, in February 1938, replacing the Parliamentary monarchic system.

"raioane", grouping around 20 urban and rural communes. By setting up a reduced number of territorial units, but twice or three times larger than the counties, the number of administrative urban centres have considerably reduced and allowed a concentration of public funds to a

smaller number of big cities, which were regional capitals. This policy favoured a fast growth of a limited number of cities whereas former county capitals which lost this status decayed (Săgeată, 2006, p.50). Dorohoi has suffered the most, whereas Botoşani took an important advantage as it became a regional capital for two years (1950-1952) (Fig. 6c). Yet, after 1952, the region of Botoşani became part of the larger region of Suceava until 1968 (Fig. 6d)[11)].

Although Botoşani city kept a regional role, its importance decreased in comparison to the city of Suceava (see fig. 8; in 1966, Suceava came in front of Botoşani, as a result of its regional capital status). In 1968, the administrative reform restored the traditional administrative structure based on counties, towns and communes as basic administrative units. Yet, the territorial delineations were not following the exact historical pattern, some new counties being set up, whereas some of the old ones were not reinstalled. The former Dorohoi and Botoşani counties (Fig. 6a) became one single unit having Botoşani as the capital city, as it is now. The instability of the administrative structure, recorded between 1930 and 1968, hampered and delayed the development of a solid and coherent urban system. On the other hand the last 4 decades of administrative stability allowed the consolidation of a rather fragile urban system with one winner – the capital city – and many losers (all the other former and present towns).

Evolution of the urban system by the end of World War II

The evolution of the urban system by the mid of the 5 decade of the 20th century can be followed through the population data of the 1912 and 1930 censuses. There are no official figures for intermediate years, due to political events of the time: First World War from 1914 to 1919 and the process of unification of the Romanian provinces in 1918 followed by a period of time of difficult reorganisations and finally the major European conflict that led to World War II and to

Table2

The demographic evolution of urban centres during the first half of the 20th century

	Urban centres	Number of inhabitants				Annual growth
		1912	1930	1941	1948	(%)
1	**Botoşani**	**33371**	**32355**	**30464**	**29985**	-0.30
2	**Dorohoi**	**14755**	**15866**	**15901**	**15412**	0.12
3	Darabani	8096	**10748**	**12951**	**11379**	0.95
4	Ştefăneşti	7310	**8891**	**9764**	**7770**	0.17
5	Săveni	5041	**6455**	**7571**	**6470**	0.70
6	**Mihăileni**	**6611**	**6044**	**7141**	**6004**	-0.27
Total population		301415	346605	404351	379120	0.64
Urban population		**48078**	**80359**	**83792**	**77020**	1.32

Source: *Censuses statistical data, INS and personal compilations. The figures in bold are corresponding to the status of town during a certain period*

11) Maps are reproduced as follows: 6a, 6c, 6d from Sageata, 2006 and 6b from the magazine "Urbanismul – serie nouă" (Urbanism – new series), no. 4, p. 9.

major territorial losses for Romania. There is a long gap of almost 2 decades of unavailable statistical data from 1930 to 1948 except the 1941 record of population in 1941, for which data are disturbed due to the major movements of population caused by the war, including refugees that usually left bigger towns for smaller ones and rural areas. The main figures for the urban system of this interval are shown in the table 2.

The figures of this period of time are obviously, strongly marked by the major political events that occurred. The evolution of the urban centres was mostly circular: growing during the first part of the interval and decreasing in the second part (Fig. 7). Botoşani was the only one that constantly decreased, although in 1930 it got the status of city (municipiu).

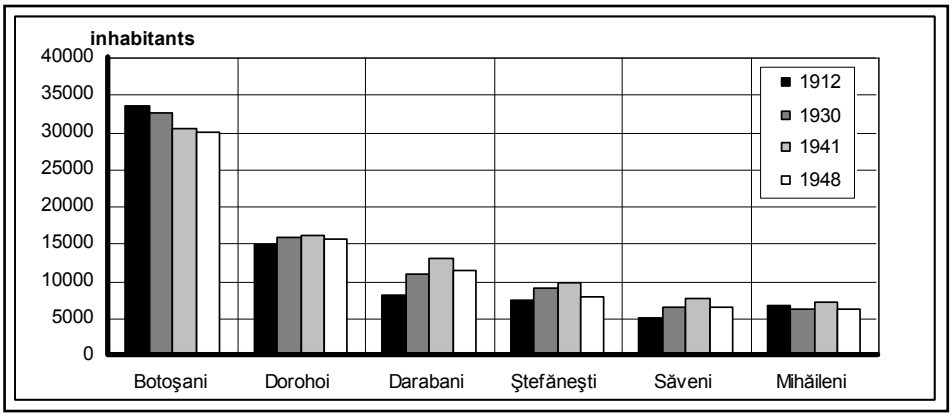

Fig. 7 - **The demographic evolution of urban centres during the first half of the 20th century**

During the first half of the 20th century, the present territory of Botoşani County was divided into two smaller counties, so one cannot discuss one urban system but two. Although smaller, the northern part, Dorohoi County had a more developed and balanced structure, due to the 4 towns, Dorohoi, Darabani, Mihăileni and Săveni, and a good territorial distribution. The urban system of the southern part, Botoşani County of that time, was much weaker with only two urban centres covering a larger territory. Although statistically, the urban population almost doubled (due to the increase of the number of towns), in fact the demographic size of the 6 urban centres increased by less than 2.5%.

The predominant commercial character of the towns at that time was not able to provide significant growth and urban development during a troubled age. Practically, for almost half a century the urban system of the present Botoşani County was stationary, without any significant change of the urban hierarchy. The percentage urban population, of around 20% as against the whole territory, remained constant too. However, during this interval a number of rural communes played an important territorial role as "plasa" centres, such as Bucecea, Sulița, Vârfu Câmpului.

Evolution of the urban system during the communist regime

During the communist regime, since 1948 to 1989, the urban system of the two counties has been largely affected and transformed due to the public national authoritarian policies. During

this 4 decades interval one can identify 3 different periods, in relation to changes of the administrative structure:

- a very short one from 1948 to 1950, of continuity and after-war reconstruction; the administrative system and the urban centres remained unchanged;
- a longer one from 1950 to 1968, defined by the administrative regional model of soviet influence and by the policy of massive investments in the industrial sector; an administrative reform frequently modified, followed by a restructuring of the human settlement system disturbed the evolution of the urban centres of former Botoşani and Dorohoi counties;
- the 3rd and longest period, which begins with the administrative reform of 1968 and lasts till the fall of the regime in December 1989, is characterized by a certain development during the first decade and by stagnation during the second one; it is a much more stable period which favours the urban development in general but not in a very balanced way.

In 1948, the present territory of Botoşani County was still divided into two and counted 6 towns in total. The percentage of urban population (as referring to the present area) was slightly above 20%. In 1950, the former towns of Darabani, Mihăileni, Săveni and Ştefăneşti Târg were degraded to the status of communes (rural administrative unit), as a follow up of the radical administrative reform. Botoşani city has been also degraded form the status of city (municipiu) he got in 1930, to that of a simple town. As a consequence the level of urban population has decreased to the minimum levels of the past 100 years of history of the territory[12)].
A significant moment was the administrative reform of 1968, when for the first time the two neighbour counties were united under the name of Botoşani County. The town of Botoşani became the county capital and a city (municipiu) again, whereas the rural communes of Darabani and Săveni regained their urban status. Three other communes around Botoşani city became suburban communes. The urban system included 1 city (municipiu), 3 towns and 3 communes[13)] with a total of 30 localities, as in the table below:

Table 3

The urban system of Botoşani County as defined in 1968

Cities (municipii)	Suburban communes belonging to the city		Towns	Villages belonging to towns	Other settlements belonging to towns
	Capital villages	Villages			
Botoşani	Curteşti	Agafton, Băiceni, Hudum, Mănăstirea Doamnei, Orăşeni-Deal, Orăşeni-Vale	Dorohoi		Dealu Mare, Loturi Enescu, Progresul
	Răchiți	Cişmea, Costeşti, Roşiori	Darabani	Bajura, Eşanca, Lişmănița	
	Stăuceni	Siliştea, Tocileni, Victoria	Săveni	Bodeasa, Bozieni, Chişcăreni, Petricani, Sat Nou	
1	**3**	**12**	**3**	**8**	**3**

Source: *Law 2 /1968 on administrative reform in Romania*

12) At the 1956 and 1966 censuses, the urban population of Botoşani County (as against its present boundaries) was 10.5% and 11.7%.

Since 1968, the number of towns and cities remained steady (4) and the percentage of urban population continuously increased, up to 37% by the end of the period, in spite of the fact that in 1977 the category of suburban communes was annulled and the population of all communes was counted as being rural population. The urban population doubled during the 4 decades, from 77,000 in 1948 to 174,678 inhabitants in December 1989[14)], although the number of urban centres decreased from 6 to 4. Botoşani city increased 4 times, from 29,145 in 1948 to 121,351 inhabitants by the end of the period, whereas Dorohoi has only doubled its population form about 15,000 to more than 32,000 along the same interval[15)]. During these 40 years, the capital city of the county became a large city, increasing the "primacy report" from 1.9 to 3.7 and hosting in the end more than 25% of the whole population of the county in 1989 as against less than 8% in 1948. This spectacular increase was the consequence of the urban development policy of the communist regime, which encouraged the development of the capital cities of the counties, especially of the new ones, by concentration of investments especially in industrial sites and collective housing. Botoşani city was much more favoured in terms of resource distribution than Dorohoi, which was considered to represent the past whereas Botoşani was a symbol of the new age. The industrial sector has been much diversified form light to heavy industry and the city was also endowed with lot of social infrastructure for health, education, culture and sport /leisure. It became an important growth centre of the North-eastern part of the country, but unfortunately the large process of reconstruction affected an important part of the cultural heritage of the former commercial town.

Table 4

The demographic evolution of urban centres during the communist regime

	Urban centres	Number of inhabitants					Annual growth (%)
		1948	1956	1966	1977	1990	
1	**Botoşani**	**29985**	**29569**	**35220**	**63204**	**121351**	**3.38**
2	**Dorohoi**	**15412**	**14771**	**16699**	**22161**	**32697**	**1.81**
3	Darabani	**11379**	10557	11024	**10880**	**12169**	0.16
4	Săveni	**6470**	6465	7774	**7345**	**8361**	0.61
5	Ştefăneşti	**7770**	6891	6731	6864	5631	-0.76
6	Mihăileni	**6004**	4557	3921	3324	4925	-0.47
Total population		379120	420804	444491	445603	470385	0.51
Urban population		**77020**	**44340**	**51919**	**103590**	**174578**	**1.97**

Source: *Censuses statistical data, INS and personal compilations. The figures in bold are corresponding to the status of town during a certain period*

The table above shows the rapid growth of the capital city as compared to all the other towns and to the general growth of the county population. It was obviously the main vector for urban growth during the communist period, but its growth was achieved on account of stagnation or decrease of other urban centres as well as of the rural settlements. Botoşani behaved as a

13) Between 1968 and 1977, according to Law 2 /1968, a certain number of rural communes got the status of suburban communes and belonged to some of the big cities as towns and by that they increased the urban population at country level.

14) Data of the National Institute for Statistics: "fişa localităţii, 1990".

15) Dorohoi has been encouraged by investments and developed a more diverse industry, mainly in the '70s, when medium towns got more support from central government in order to balance the development of the counties capital cities (Ianoş, 2004).

"predator" city whereas the small towns were preys. As can be noticed the absolute growth figure of the city of 90,000 inhabitants correspond to the total growth of population during the 4 decades. Most of the other towns, except Dorohoi, had insignificant growth or even losses, especially the former towns that were degraded to rural status. The rapid growth of the urban population was also due to the big flows of rural – urban migration (especially towards medium and big urban centres) combined with the legislation for birth control that was in place since 1966. Due to these factors, the losses of population from the beginning of the interval (also due to massive migration of the Jewish population) were rapidly compensated.

The strong focus on the capital city has not favoured the development of a balanced urban structure. Dorohoi remained a medium sized town with a medium growth, whereas the other two towns remained small sized towns with a very slow rhythm of growth. As the communist regime economic development policy was mainly supporting the secondary sector, the agricultural and rural areas were not subject to significant investments in technical and social infrastructure; nor were the small agro-industrial towns. The development of other communal centres such as Truşeşti (capital of a "raion" in the '50s) was encouraged for short periods of time, without significant effects.

At regional level, it is worth to mention that Botoşani city succeeded in the end to keep its third position after Iaşi and Bacău, after several changes of ranks with other cities (see Fig.8). Yet, it could not regain its second position held during the first decades of the century and will probably not be able to do this in the future. Although being the 3rd in demographic size, the city of Botoşani lacks a very clear and defined regional profile, a certain specific identity within the regional competition. Although it may have won the competition in terms of demographic size, with Suceava – its main competitor and Piatra Neamț, it has a structural weakness, which gives it a marginal role in the region. Botoşani city could not reach the status of a regional administrative, educational or cultural centre, as Iaşi, neither that of a powerful industrial centre as Bacău did, nor the image of cultural tourism and historic heritage to which Suceava can be connected[17)].

The political change of December 1989 left the county with a rather strong mono-centric urban structure, quite unbalanced in terms of rank-size rule[18)] as well as in terms of territorial coverage, as long as the Southern part of the county, about 1/3 of the territory remained still deprived of an urban centre. The urban system left by the communist age was stable but rather weak, depending mostly on two towns only, Botoşani and Dorohoi, the same ones that were the main "players" along history.

Evolution of the urban system during the last twenty years

The last two decades, known as transition period from an authoritarian regime to democracy, were marked by a significant process of economic restructuring, by changes of the property status, by the decrease of investments in infrastructures of the public sector and by the quick development of the private sector. The industry was subject to radical restructuring processes, whereas the tertiary economic sector was fast developing, mainly in connection to the private

17) Suceava has also the advantage of being one of the past medieval Moldavian capitals for almost 200 years during the 14th 15th and 16th centuries.

18) According to Zipf rank-size rule law, in December 1989 the size of the 2nd city should have been 60,000 inhabitants, of the 3rd one 40,000 and of the 4th one, 30,000. As compared to the inter-war period, the capital city developed mach faster than the rest of the urban centres, due to strong interventionist development policies.

sector development. There have been also significant changes of the social and demographic patterns: birth rate decreased (as previous restrictions were abolished), natural increase got negative, the internal migration reversed trend from urban to rural and external migration constantly increased. The European integration process brought the opportunity of accessing Pre-structural Funds from 2000 to 2006 and Structural Funds after 2007. Besides these macro-economic and external factors, there have been significant changes in relation to local governance too: local communities got a certain level of autonomy as part of the decentralisation process that began in the '90s. Towns and cities had to elect their own local authorities and these ones were facing the challenge of planning and managing local development in a competitive environment.

The period following December 1989, is characterized as a period of general turbulence both at the individual level of every town and city and at the level of the national and regional urban systems. Ianoş finds as main causes of the turbulence and chaotic evolution: "the beginning of political and social-economic decentralisation, abrogation of some demographic restrictions and the beginning of the process of urban deindustrialisation"[19]. He also adds the effect of land reform, the pressure of former county capitals that have lost this status in 1950 and have been exempted in 1968 too, to get back to their status and to the territorial division of the inter-war period and finally, the freedom of travelling and settling ones residence[20].

The urban system of Botoşani County has suffered and was influenced by most of these changes and factors and not in a positive way. What was the heritage of the urban system at the dawns of democracy and market economy? The main traits are listed below:

- an unbalanced urban system with a hypertrophy of the capital, which concentrated most of the economic and human resources and social and technical infrastructure;
- a former county capital, Dorohoi, whose role and importance have been considerably reduced during the 4 decades of communist regime as compared to the period when it was a county capital;
- a pair of two small towns whose urban evolution has been brutally stopped between 1950 and 1968 and two others with some tradition of urban history, which have been also brutally deprived of this status in 1950;
- a number of industrial developments artificially implemented between 1960 and 1980, weakly connected to local resources and traditions;
- a rather weak accessibility and connection to the rest of the country (for instance the railway network, one of the oldest in the country, is one-track and non-electrified), combined with the "frontier effect"[21], which increased the isolation of the extreme northern and eastern parts of the county.

The effects of the deindustrialisation were the diminishing of salaried people in industrial sector by more than 2.5 times between 1991 and 2004[22] and the reduction of the activity or closure of most of the existing industrial enterprises. The small mono-industrial towns have suffered the most, but so has Dorohoi. The weight of the labour force in the industrial sector decreased at around 15% of the total labour force, much less than the regional and national averages. The

19) Ianoş, I. (2004), *Dinamica urbană*, ed. Tehnică, Bucureşti, pag. 129.

20) Id. Pag. 130-138.

21) The frontier or border effect is related to all types of spatial interactions between countries and regions (Goodall, 1987). In the case of the Eastern Europe communist countries, it refers to the restrictions for traffic, mobility and social interactions imposed usually along all the borders on stripes of land of 25-30 km large, due to military, strategic and political reasons. In the case of Botoşani County about one third of the territory was so affected.

22) Territorial Statistics, (2006), INS (the National Institute for Statistics).

lay-offs in the industrial sector, combined with the process of land restitution led to the diminishing of urban population in favour of rural areas. Yet, the small towns have experienced a slight growth of population due to their semi-urban character. An increase of the occupied population in the primary sector was recorded in all the towns and communes of the county except the capital city. The percentage of occupied population in primary sector was constantly above 50% of the total labour force, higher than regional or national averages. A process of ruralisation of the county as opposed to the fast urbanisation of previous decades can be noticed especially by mid of the 2000'. The slight recovery of 2007-2008 was counteracted by the economic crisis situation of 2009-2010. In spite of these economic and social transformations, in juridical and statistical terms the urban population of the county increased from 37% in 1989 to 41.91% by the 1st of January 2010.

This "fake" urbanisation can be explained by two factors: reparatory actions (such as conferring Dorohoi the status of city /municipiu in compensation to its past position of county capital, or to Stefăneşti the status of town, also as a reward for its urban history) and local "patriotism" of the elected people who were aiming for more prestige and revenues (which led to the creation of two new towns). As a consequence, the urban system grew by three new towns[23)] and one old town rose to the status of city (municipiu).

Table 5

The demographic evolution of urban centres during the communist regime

		Number of inhabitants				Annual growth
	Urban centres	1990	1992	2002	2010	(%)
1	**Botoşani***	**121351**	**126145**	**115070**	**115751**	**-0.24**
2	**Dorohoi***	**32697**	**33739**	**30949**	**29920**	**-0.44**
3	Flămânzi**	12369	11752	11799	**11947**	-0.17
4	Darabani	**12169**	**11804**	**11820**	**11646**	**-0.22**
5	Săveni	**8361**	**8475**	**8145**	**8043**	**-0.19**
6	Ştefăneşti**	5631	5485	5628	**5620**	-0.01
7	Bucecea**	4993	5164	5128	**5165**	0.17
Total population		470385	456008	452834	448749	-0.24
Urban population		**174578**	**180163**	**165984**	**188092**	**0.37**

Source: Censuses statistical data, INS and personal compilations. The figures in bold are corresponding to the status of town during a certain period. One * indicates the status of city (municipiu) and ** indicate the new towns declared.

Table 5 shows an almost general loss of population at the level of individual urban centres, at a close rate to the general decrease of the county population. The social and economic transformations have affected more the two northern towns of the county, especially Dorohoi, which lost 8.5% of the population in 20 years. If new towns are exempted, the urban population decreases by a -0.27% yearly rate, a bit higher than the general rate of -0.24%. The capital city lost a significant number of population (close to 5%), but its regional position has not changed, as its closest competitors lost even more population. However its position can be menaced in

23) The former communes of Bucecea, Flămânzi and Ştefăneşti were declared by laws 79, 89 and 81 from 2004 as towns. The town of Dorohoi was declared municipiu by law 104 /1994.

the near future by both Suceava and Piatra-Neamț. The first one developed new regional functions, such as higher education (see also Ianoş, 2004) and has a good cultural and touristic image due to the proximity of the painted churches of Moldavia, which are UNESCO heritage[24)], whereas the second seems to recover after the shock of the industrial restructuring due to tourism opportunities of the surrounding areas.

The development of the urban system after 2004 is too recent to have produced already visible effects at territorial level. In terms of the general balance of the system, the improvements can be seen from the point of view of territorial coverage, as the South and South-eastern parts of the county have been for long time deprived of urban centres. The commune of Flămânzi was a good choice in terms of population size[25)] and infrastructure and is well placed along the main access road from the South. Stefăneşti, on the other hand was one the first small commercial towns in the area and is also well placed along the main road coming from Iaşi, the regional urban centre, and also as a cross-border point with the Republic of Moldova. There are fewer arguments for the selection of Bucecea as being a town, except maybe its past of a "plasa" centre. At present, the urban system is counting 2 cities (municipii), 5 towns and a number of 21 small settlements, of which 16 having less than 1,000 inhabitants and a rather strong rural character. The structural weaknesses of the urban system have not been significantly improved.

Major problems of the present urban system of Botoşani County

Taking into account the present situation, Botoşani County can be seen as one of middle level of urban development, in statistical terms, as against the national and regional averages. In terms of urbanisation level (% of urban population out of the total population) the county is under the regional and national figures. It stands also below, in relation to the average number of urban centres or cities per county (regional averages are 7.67 and 2.83 and national ones are 7.78 and 2.49). But, it stands above, in terms of urban density (urban centres per 1000 km^2) and in-between the national and regional averages in terms of number of rural administrative units per urban centre (see Table 6).

In comparison to the regional neighbour counties, Botoşani can be seen as having a mono-centric urban system, with a dominant capital. At regional level, only Iaşi – 7.27, has a higher primacy report. Botoşani has the second highest primacy report in the region - 3.87, followed by Suceava – 3.60 and Bacău – 3.57. However, the real weaknesses of the urban system of the county are not reflected by quantitative indicators, but mostly by qualitative ones. The real problems can be found in the low levels of physical and social infrastructure of the urban centres of the county and most of all in the weakening of the industrial sector which was the base of urban development during the second half of the last century. The low level of economic attractiveness, the lack of jobs and the general decay of the living standard led to an increase of the external migration and to a loss of the young population (Iațu, 2010). In order to fulfil their territorial role, the cities and towns of the county must have a minimum level of endowment with social and technical facilities, and must provide a minimum standard of living comfort. Such minimum requirements have been set up by specific regulations and normative acts in 2001 and 2007[26)].

24) The UNESCO heritage site of painted churches of Northern Moldavia has been recently extended to 8 such historic monuments (http://www.unesco.org/new/en/unesco/, last accessed the 20th of August 2010).

25) The size of the commune Flămânzi has been increased in both surface and population, in 1977, by its unification with the neighbouring commune Nicolae Bălcescu.

Table 6

Characteristics of the urban system at county, regional and national levels

Territorial level (county /region / country)	Urban population	Towns and cities	Cities (municipii)	Urban centres /1000 km^2	Communes / urban centre
	%	no.	no.		
Iaşi	46.89	5	2	0.9	18.6
Suceava	42.86	16	5	1.9	6.1
Bacău	42.53	8	3	1.2	10.6
Botoşani	**41.91**	**7**	**2**	**1.4**	**10.1**
Vaslui	41.34	5	3	0.9	16.2
Neamț	37.83	5	2	0.8	15.6
Regiunea Nord-est	43.15	46	17	1.2	11.0
România	55.07	320	103	1.3	8.9

Source: *Romanian Statistical Yearbook 2009, INS; Population of Romania at 1st of January 2010, INS*

Table 7

Level of fulfilment of minimal quantitative and qualitative indicators for urban settlements as defined by Law 100 /2007

	Urban centres	Population 2010	Nr. of criteria fulfilled out of 17	Major criteria[27)] fulfilled out of 8
1	Botoşani	115751	15	7
2	Dorohoi	29920	8	4
3	Flămânzi	11947	3	1
4	Darabani	11646	6	3
5	Săveni	8043	8	3
6	Ştefăneşti	5620	3	1
7	Bucecea	5165	4	1

Source: *(2010), Update of Territorial Plan of Botoşani County*

The table above shows that no urban centre of the county, except the capital, fulfils at least 50% of the minimal quantitative and qualitative criteria set up by Law 100 /2007. The new

26) Law 351 /2001 and Law 100 /2007 for approval of National Territorial Physical Plan – Section IV on Human Settlements Network.

27) Major criteria were considered: the demographic size (40,000 inhab. for a city and 10,000 inhab. for a town), the economic criteria (labour force occupation), the endowment of dwellings with utilities (water, bathroom, toilet), the health service, the quality of roads, the preservation of the environment

declared towns have the worse situation: they fulfil 3 or 4 criteria out of the 17 and maximum 1 out of the basic ones. One may conclude that the set up of these 3 towns has been a rather hasty and unmotivated decision, as long as it was not accompanied by significant public investments in infrastructures. There are also some secondary negative effects of this decision: the diminishing of the opportunities to attract European Funds[28)] and an increase of the living costs for the local communities.

There are also some basic structural problems of the urban system of Botoşani County. The present urban system is the result of a historic evolution, marked by frequent and strong turbulences: during the last 100 years, the urban settlements of the present county territory were affected by 4 major administrative reforms and several other intermediate ones, by at least 4 major changes of political regimes and by experiencing at least 3 economic models. The lack of continuity and the frequent fragmentation of the evolution – almost every 10-15 years – due to external inputs, hampered the urban system of the county to reach the necessary cohesion and integration. Although there has been an administrative stability for the last 4 decades, the radical political and economic changes, at the mid of this interval, have acted as disturbing factors too. Besides these aspects another one should be added: the low level of planning and management capacities of the local authorities. This situation is proved by the lack of territorial and spatial development strategies at both county and urban levels. Most of the existing development plans are obsolete, being more than 10-12 years old and inefficient and most of all, they are not correlated and integrated to a global and unitary vision[29)].

The economic weaknesses, the low level of infrastructure, the unbalanced development and the low capacity of governance of the local authorities are some main factors that make the present urban structure of the county a fragile one and still vulnerable to the influence of external factors. The North and the West are currently more developed than the East and the South, whereas the border "effect" has not been really counteracted. Such disparities in a rather underdeveloped territory can become powerful restrictive factors for future development, especially along a border area with a high risk for illegal activities. If the eastern area of the county will not escape poverty and isolation, there is an increased risk for the whole county to be seen as a "dead-end" with no external connections, which can also hamper the development of its urban system.

At regional level, although the capital city is ranked the 3rd by demographic size, it has lost a recent competition with Suceava, its closest competitor, which was selected as an Urban Development Pole[30)], together with Bacău and will largely benefit form the Structural Funds under Priority Axis 1 of the Regional Operational Programme - Regio 2007-2013.

As a final conclusion, the urban system of the county has developed over the last 50 years, but not in a sustainable manner and has to face now major challenges. The capital city has no regional identity and is not playing an important regional role, the second city Dorohoi has decayed continuously over the last 20 years, lacks a clear economic profile and lost much of its

(existence of sewage treatment plants) and the percentage of green areas. Other criteria, set up by the law, refer to social infrastructure, tourism facilities, other technical utilities and waste disposal facilities.

28) The new towns are now forced to compete for Structural Funds with medium and large towns with more resources and experience in planning and project preparation. In some cases, due to their small size they are not even eligible to compete (for instance, for Axis 1 of the Regional Operational Programme – REGIO 2007-2013). By having preserved their rural status, they could have competed with communes of similar size and strength for the European Agricultural and Rural Development Fund (EARDF).

29) Territorial Physical Plan of Botoşani County, (2010), UAUIM.

30) According to the Government Decree 1149 /2008 on growth poles in Romania.

zonal polarization power, whereas the smaller towns are characterized by low attractiveness and by a strong rural character (Zamfir et. All, 2009).

Policy recommendations

STRENGTHS	WEAKNESSES
- a developed capital city, ranked 3rd at regional level - a 2nd city with a long history of a county capital - a number of smaller cities with urban tradition and well spread along the county - a number of communes with potential of "central places"	- lack of regional identity of the capital city - economic decay of the 2nd city - low level of endowment with social and technical facilities of the small towns - low living standards in most of the cities - weak communication networks - weak level of cohesion and integration
OPPORTUNITIES	THREATS
- European Funds for sustainable urban development - European Funds for cross-border	- regional competition among capital cities - geographic isolation - increased "border effects"

The development of the urban system must make use of its strengths and of the opportunities and fight against its weaknesses and threats. A brief SWOT analysis is presented below:
Taking into consideration some of the driving factors listed above, the present structure can be seen as a good start for a more balanced urban system if followed by concrete policies and measures such as:

- support for the economic and social development of the city of Dorohoi, through public investments in adequate infrastructures in order to increase its attractiveness for private investments;
- better use of the opportunity of European Funds to improve the technical and social infrastructure of the small towns of the county;
- more decentralisation of public services towards the small new towns (for instance setting up a hospital unit and a law court in Flămânzi);
- improving the road connections between all urban centres of the county and setting up an inter-urban public transport service to improve connections between them;
- support the development of other urban centres especially in the southern part of the county; potential candidates are the communes of Truşeşti and Albeşti to the East and the commune of Vorona in the South-west corner which has the potential of becoming a monastic touristic centre;
- defining an economic or cultural profile for Botoşani city, by supporting and encouraging the development of higher tertiary sector: R&D, IT in order to preserve and attract the young labour force.

In order to develop a sound and balanced urban system, the policies should also focus on regional and cross-border objectives and make use of the opportunities of the European Funds. Botoşani can develop for instance, a cooperation policy with the city of Suceava to which it is very close (45 km) and contribute to the strengthening of the urban system of the northern part

of the region. It must also make use of its geographical position and of the opportunities of the future development of the road communication network. Botoşani will be close to the 9th Pan-European Corridor connecting Northern and Southern Europe and also on the direction of a national corridor foreseen to better connect the Northern part of Romania (see Fig. 9).

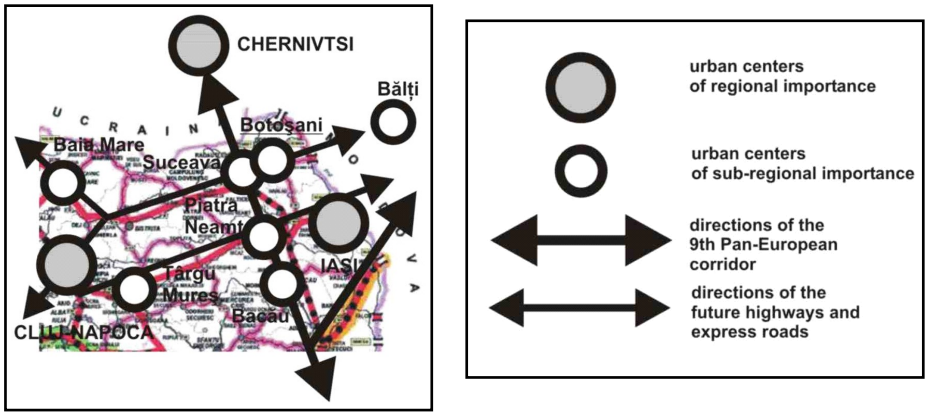

Fig. 9 - **Major urban centres and development axis in the North-east of Romania** (based on a map from the National Territorial Physical Plan – Section I – Communication network, 2006)

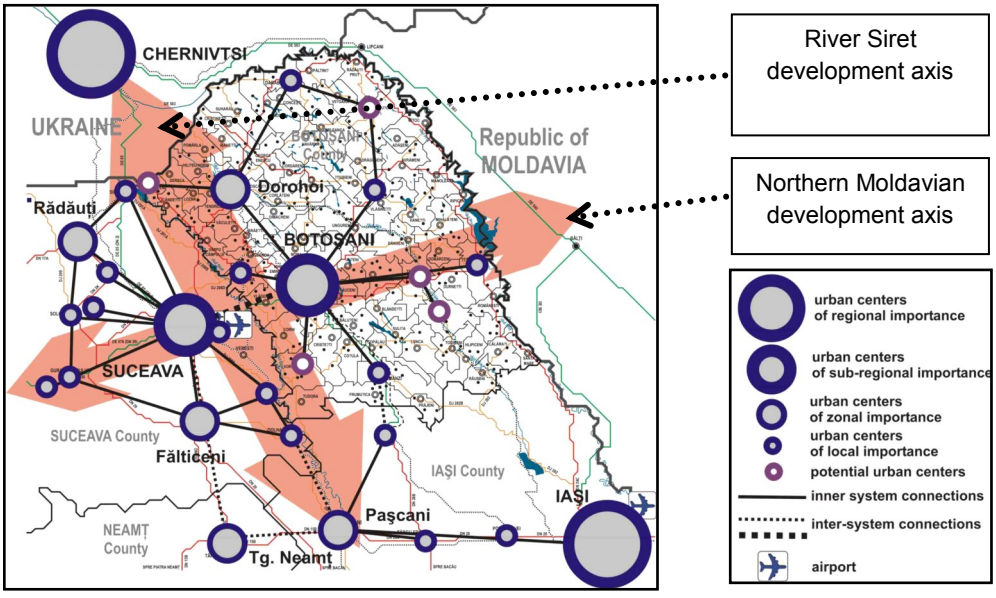

Fig. 10 - **Scheme of Botoşani and Suceava counties urban systems and of main connections and development axis** (based on maps from Botoşani County Territorial Physical Plan, 2010)

The urban system of Botoşani County can also evolve to a complex polycentric and more balanced system in correlation to the urban system of Suceava County, its neighbour to the West, usually seen as a competitor. Together, the two counties have now the most developed urban network in the region: exactly half of the total number of towns and cities (23 out of 46) are located here. At least 10 towns and cities are concentrated along the Siret river, the natural border separating the two counties, on a stripe of 40-50km width and 70-80km length. This corridor is grouping now an urban population of more than 300,000 inhabitants, it also has a rather dense rural population, is well connected by roads and railways to the regional and national territory and benefits of the proximity of an airport (Fig. 10).

By developing a pro-active policy of cooperation with its neighbours at regional and cross-border levels and by making better use of its endogenous potential, the local authorities could better support the development of its urban system, than by isolation and competitive behaviour. In order to make better use of its strengths and transform its weaknesses into strengths too, the internal cooperation of county and local authorities is also necessary as well

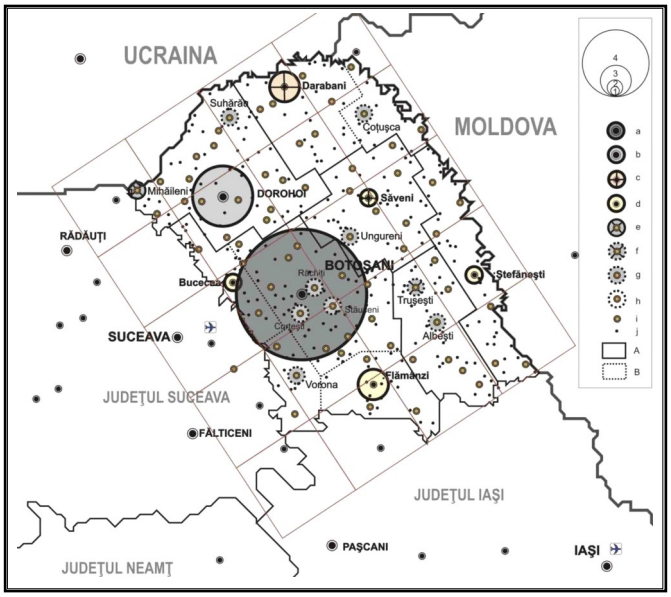

Fig.11 - **Urban system of Botoşani County and the human settlements network**

Legend

1. small towns under 10,000 inhab.; 2. small towns of 10,000 to 20,000 inhab.; 3. medium size towns of 20,000 to 50,000 inhab.; 4. big cities of over 100,000 inhab.

a. county capital (municipiu); b. other cities (municipii); c. towns since 1968; d. towns since 2004; e. former towns that were degraded to commune; f. former centre of a "raion"; g. communes that can be "central places" and potential new towns; h. former sub-urban communes; i. villages, centres of communes; j. villages.

A – main urban systems of the county (Botoşani, Dorohoi, Darabani, Săveni, Ştefăneşti, Truşeşti-Albeşti); B – potential sub-systems (Bucecea, Coţuşca, Flămânzi, Verona).

(processed by the author on a topographic support from the Territorial Physical Plan of the county, 2010; the orientation grid is formed by squares of 20x20 km)

as involvement of local communities and private sector. Participatory planning and multi-level governance, that is involvement of different levels of authorities to built up a global vision and strategy, can be key actions for enhancing the urban system of Botoşani County. Some of the possible guidelines for such a strategy could be: development of a bipolar urban system Suceava – Botoşani as a strong growth pole for North-eastern Region, defining specific functions (focusing more on processing local products, education, culture and tourism) for the medium and small towns as part of an integrated system, supporting the border towns and developing smaller local systems of towns and communes in order to provide a better territorial distribution of services and improving the transversal communication over the natural barriers (Siret and Prut rivers), which might need the involvement of regional and national authorities too (see also Fig.11).

Conclusions

The urban system of Botoşani County has evolved over time under the pressure of various external factors and bearing the geographical disadvantage of being in an extreme marginal border area, at the intersections of many conflicting interests. At present, the political and economic changes are offering new opportunities due to decentralization and local autonomy, European integration and abolition of restrictions of any kind, freedom of economic initiative, of business development and capital circulation. The transformation and evolution of towns and cities are much more depending on local decisions, good management, planning and participation. By developing a global strategy at county level with regional and national correlations, local urban authorities and not only could overcome the restrictive factors of development and make a better use of the driving forces. Significant public investments will be needed in that sense, but these can depend a lot now on the capacity of the public administrations to prepare coherent local development strategies and good projects, eligible for European or national funding. In the end it is the responsibility of local authorities and of local communities to overcame, by integrated and participatory planning, by developing partnerships, the structural weaknesses of the urban system related to geography, infrastructure, social and economic decline and others. A future sustainable urban system of Botoşani County should favour the growth of the smaller towns, increase the role of the only medium-size town of the county and consolidate the regional position of the capital city.

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DYNAMICS OF GEODIVERSITY AND ECO-DIVERSITY IN TERRITORIAL SYSTEMS

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Abstract: Two concepts, the "territorial system" and the "ecosystem", describe similar realities from different standpoints. For both systems, one of the key features is diversity, called geodiversity in the first case, and eco- or biodiversity in the second. The paper analyzes their definitions and proposes a clarification: overlapping with geodiversity, eco-diversity includes biodiversity. In this interpretation, urbanization processes determine the loss of biodiversity, but increased geodiversity, reflected by the consumption of resources appreciated as primary eco-energies.

Key Words: *geodiversity, eco-diversity, biodiversity, territorial system, ecosystem, eco-energy*

Territorial and ecological systems

Territorial systems are "*functional assemblies [...] constituted of elements and relationships, aiming to achieve common goals*" (Ianoş, 2000). Other authors focus their definition only on the structural elements (Wilson, 2000). The elements constitute natural and anthropic subsystems, substantially different (*Fig. 1* and *Fig. 2*).

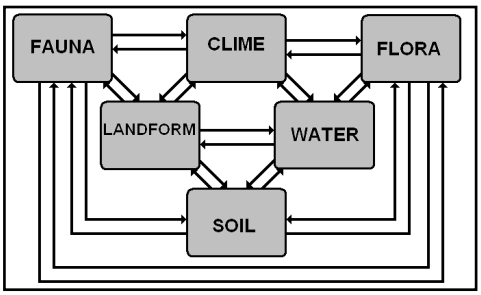

Fig. 1. - **The natural territorial system**
(Ianoş ,2000, simplified)

The base unit in ecology is the ecosystem, defined by Arthur Tansley as "*system... including not only the organism-complex, but also the whole complex of physical factors forming what we call the environment*" (Tansley, 1935). Therefore, the ecosystem is formed by lifeless / abiotic components (the biotope) and living / biotic components (the biocoenose or community), as well as their relationships (Petrişor, 2008). Its model is replicated at the upper hierarchical levels; in complexes of ecosystems, the biotic components is a complex de biocoenoses or biome, and the abiotic one, a hydro-geomorphologic unit (river basin, delta, estuary, sea, ocean etc.) – Vădineanu, 1998. In the ecosphere, the biotic component is the biosphere. The abiotic one (troposphere) includes terrestrial geospheres: atmosphere, hydrosphere, lithosphere. The ecosphere also includes the antroposphere and its component, the technosphere (Vădineanu, 1998).

Eco-diversity and geodiversity

One of the defining characteristics of territorial and ecological systems is diversity (also called heterogeneity or variability). In statistics, diversity is perceived quantitatively as scatter around a central trend (Dragomirescu, 1998) and qualitatively as a different number of elements with

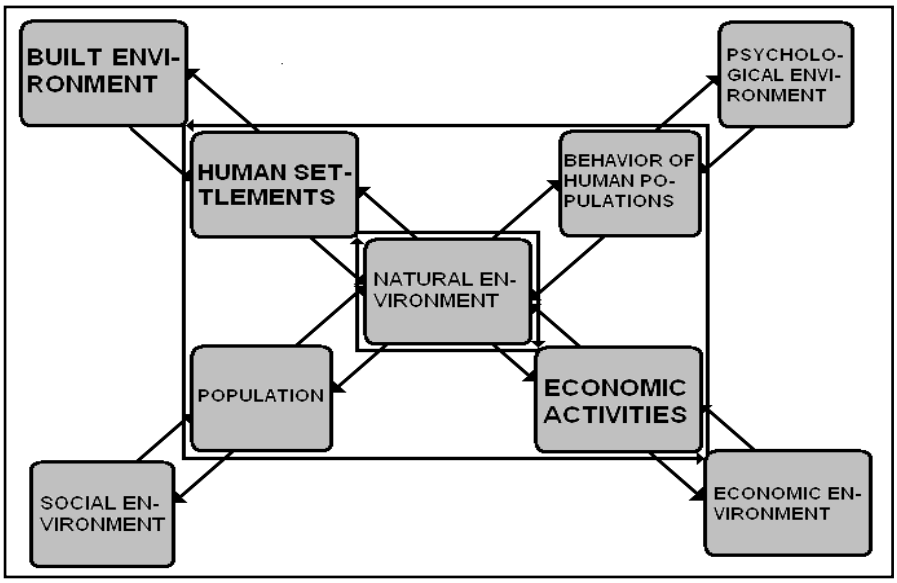

Fig. 2 - **Strongly anthropized territorial system**
(Ianoş, 2000, simplified)

different frequencies – evenness of the distribution (Magurran, 1988; Dragomirescu, 1998). In ecology, it refers to the diversification of structure, relationships between the elements, and functions (Vădineanu, 1998; Petrişor, 2008). The diversity is named in geography, geodiversity and in ecology, bio- and eco-diversity. The concept of geodiversity is used by two disciplines. In geography it represents the heterogeneity of „*geological (rocks, minerals, fossils), geomorphological (landforms, processes) and soil features; it includes their assemblages, relationships, properties, interpretations, and systems*" (Gray, 2004). In geology it is defined as expression of the „*geology of a region, including rocks, minerals, fossils, or geological structures open by natural or anthropic means*" (Popa, 2007).

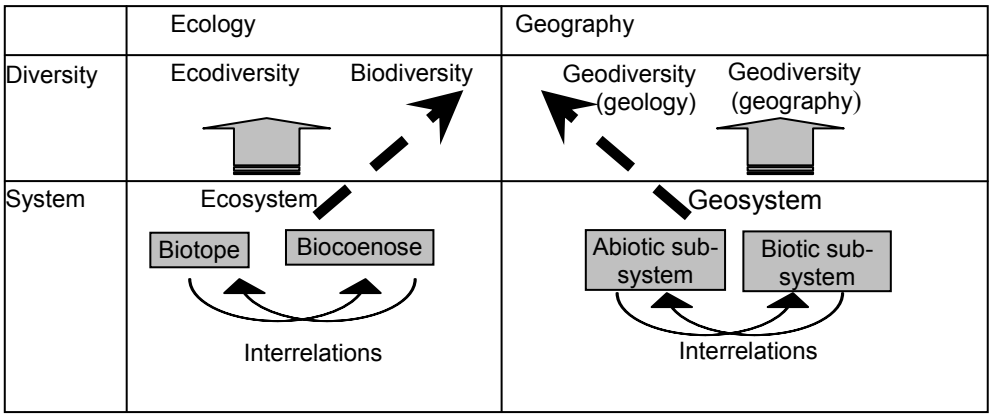

Fig. 3 - **Relationship between biodiversity, eco-diversity and geodiversity, correlated to the hierarchy of ecological and geographical systems**

Some authors believe that geodiversity and biodiversity overlap (Musila *et al*., 2005; Santucci, 2005), others believe that geodiversity includes biodiversity (Hakala, 2005), or the opposite (Vădineanu, 1998). The confusion originates mostly in semantics. The concept of "biodiversity" is etymologically built around the Greek ßίος (bios) - life: "*variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems*" (1992 Rio de Janeiro Convention on Biological Diversity). Nevertheless, the definition can be extended by adding abiotic components, provided the inclusion of the diversity of ecosystems "*including not only the organism-complex, but also the whole complex of physical factors*" (Tansley, 1935). The ecosystemic component was called *eco-diversity*, built etymologically around the *ecosystem*, and including living and lifeless components. The newer concept (eco-diversity) was embedded in the previous one (biodiversity) as an extension, despite of the opposite semantic relationship. This paper is based on considering that eco-diversity includes biodiversity, since the hierarchy of ecological systems embeds supra-specific biological systems. If understood, correctly, eco-diversity represents the diversity of natural and anthropic systems and coincides with geodiversity, including biodiversity (*Fig. 3*). Moreover, there are serious reasons to consider that from the conceptual level of systems to the one of diversity, conceptual distinctions relate more to the research methods specific to ecology, respectively to geography.

Dynamics of coupled complexes of socio-ecological systems

Regardless of the theory accounting for their dynamics (succession or adaptive cycles), ecological systems as life-support systems (Vădineanu, 1998, 2004), generate through the matter and energy flows a series of resources undertaken by the human socioeconomic systems as environmental goods and services (Negrei, 1999). The following paragraphs discuss the mechanism through which socioeconomic systems couple to the natural ones in order to absorb the resources required for their development (Vădineanu, 1998; Sârbu, 1999).

However, understanding the dynamics of socioeconomic systems requires a brief presentation of their function. In addition to the functions of natural systems (energy and matter flows and self-regulation), socioeconomic systems have new functions, as a consequence of the socio-economic and cultural components, and even the common functions take place differently (Petrişor, 2008).

Biogeochemical circuits are modified and often become linear due to the pollution and overexploitation (Vădineanu, 1998), determining, among others, the loss of biodiversity due to the shortage of food chains, disappearance of species, habitats, and systems (Petrişor, 2008), but also due to a drastic diminishment of "environmental services" (*e.g*., due to the fact that the soil is covered by asphalt in the urban ecosystems and becomes impermeable, the global circuit of water is changed; the hydrological balance is in deficit and needs to be compensated by the creation of ponds – Petrişor, 2008). It is obvious that this topic is approached anthropocentrically, since the processes based on natural phenomena are considered to be oriented toward the satisfaction of human needs.

Matter and energy sources used by the socioeconomic system are not the sun or chemical energy as in natural systems, but socioeconomic systems are parasites of the natural ones and strictly dependant upon their highly concentrated energy and matter stocks (Vădineanu, 1998). Self-regulation is affected since the dominance of the human species results into reduced biodiversity and increased dependency of socioeconomic systems on the human species, subtracting it from natural laws to favor the human desires (Petrişor, 2008). It is evident that the

"subtraction" is apparent, since the access to the stock of natural resources is an access "mediated" by the natural and semi-natural ecological systems to the radiant solar energy and the biochemical processes of the latter, subjugating, finally and fatally, the socio-economic system in general and human settlements in particular to the same implacable law of the limiting factors and to the same biogeochemical processes governing the structure and functions of natural systems. The difference resides in the quantity, density, and quality (diversity and distribution) of resources in socioeconomic systems compared to the natural ones, including the systemic resources specific to the first (social, economic, and cultural relationships, generating at their turn institutional structures and resources).

The dynamics of socioeconomic systems consists of stages of spatial, structural, and economic growth followed by structural and functional improvements (Vădineanu, 1998). The determining factors are exogenous (cosmic, geological – same as in natural systems) and endogen (dynamics of the human population, material and nonmaterial needs correlated to the development of social and institutional organization, and development of better means and technologies to access and utilize renewable and nonrenewable resources and services offered by the natural capital) – Vădineanu, 1998.

The coupling is made in all functional aspects.

- Matter flows are taken directly from the natural system. Man intervenes as a top consumer in food chains. Resources are taken directly from natural systems or upon transformation in anthropized systems, such as the agro-ecosystems.
- Energy (and resources) are taken using the technologies developed by the human species (Sârbu, 2006) – *Fig. 4*. From the energetic standpoint, socioeconomic systems dissipate natural energy, introducing it as fertilizers, pesticides, soil works, caring for the green spaces, food, etc. in amounts exceeding the contribution of primary producers (Petrişor, 2008). The amount and density of anthropic energy resources (meaning the energy manipulated by the socioeconomic system to maintain and develop its own subsystems, resulting into the modification of the structures and functions of the territory) increase in an urbanized territory compared to the adjacent territories covered by natural systems. The amount of energy absorbed is increased by diversifying the channels for absorbing resources, underlying the structuring character of human activities over the geographic space (Sârbu, 2006).
- The modification of biogeochemical circuits and loss of biodiversity determines a lower stability of socioeconomic systems; their self-regulation becomes dependant on human actions.

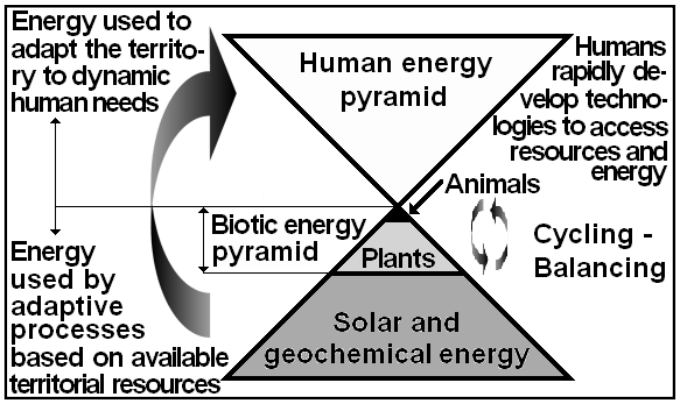

Fig. 4 - **Coupling of socioeconomic systems to the natural ones in order to absorb energy** (Sârbu, 2006)

The dynamics is tightly and intrinsically related to two concepts, eco-energy and urbanization. Primary eco-energy is the initial energy of a territorial system before the conscious human intervention on its structure. During the urbanization, natural systems are first anthropized and then become anthropic; the concentration of population and economic activities determines a differentiated consumption of resources, appreciated as primary eco-energies (Ianoş, 2000). The assessment of eco-energies is based on the qualitative appreciation of the level of degradation in initial geosystems. The intensity of anthropization is inversely correlated with the distribution of primary eco-energies, and responsible for the increased complexity of geosystems (Ianoş, 2000).

Socioeconomic systems tend to expand in space and replace the natural ones by anthropization and urbanization. The historical stages of their relationships are suggested in *Fig. 5.* The pressures on natural systems translate into impacts generally named environmental deterioration: overexploitation of natural resources, pollution, loss of eco-diversity and biodiversity, introduction of new species, fragmentation of habitats, genetic manipulations, important works on water courses (Petrişor, 2008), some of which were signaled in the 60's in Rachel Carson's *Silent spring* (Carson, 1962), and starting from the 70's economic, social, and political impacts during the oil crises.

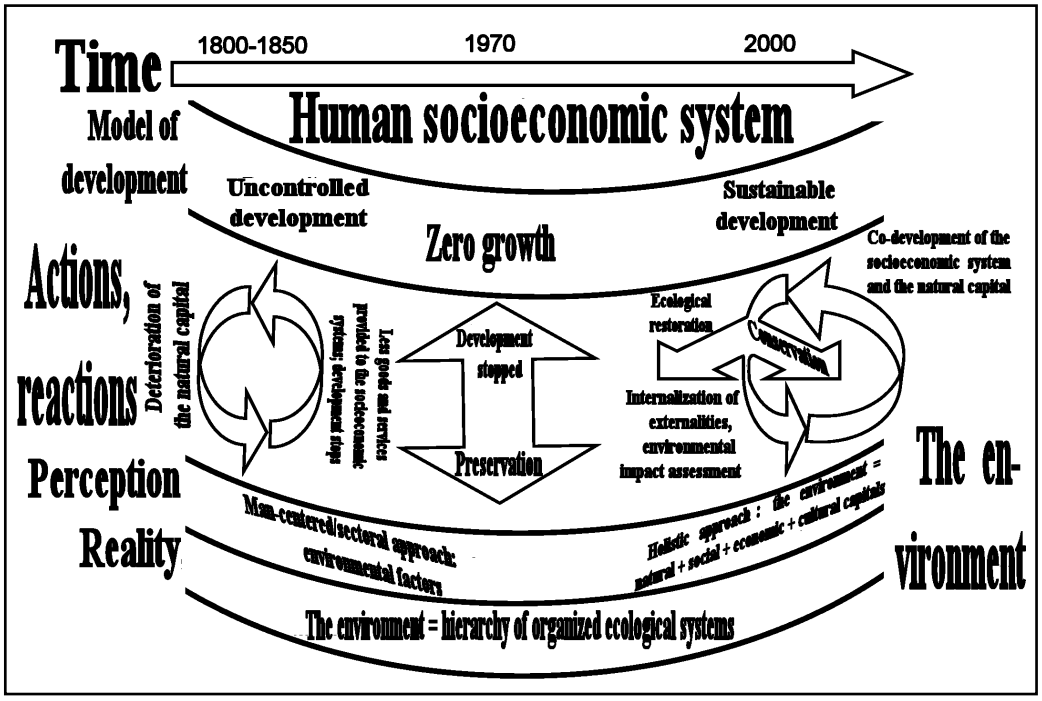

Fig. 5 - **Environmental deterioration and sustainable development**

The coordinates of the dynamics of socioeconomic systems are: (1) spatial expansion by substituting natural and semi-natural components of ecological networks with the spatial and technological components of socioeconomic systems and transforming them by simplification, fragmentation and restrained connectivity, (2) diversification and specialization of the inner structure, increased density of matter and energy flows, and of the volume of goods and

services, (3) multiplication of channels for the absorption of renewable and nonrenewable resources and services, and increase of matter and energy flow for each channel, (4) growth and diversification of channels (punctual and diffuse) for the dispersion of secondary technological products, of the special ones (pesticides, detergents, CFCs), of the used ones, and of entropy, especially in the aquatic systems and troposphere, (5) increased material and energetic transfer rates, and linearization of biogeochemical circuits, (6) absorption, accumulation, concentration of nonrenewable mineral resources as wastes or built capital, parallel to the exhaustion of the natural capital stocks, and (7) regionalization and globalization of socio-ecological systems due to the increased interdependence among them (Vădineanu, 1998).

A first answer to these issues was the reaction of the Club of Rome, proposing the **zero growth strategy**, stopping both development and its impacts (Meadows *et al*., 1972). Since the solution was not feasible, researches continued and focused either on changing the consciousness and ethics (László, 2004), proposing technological solutions (Petrişor, 2008), diminishing the extended impact of megalopolis-type urban systems (Dansereau and Weadock, 1970), or economic, social or political issues (Petrişor, 2008). As a synthesis of these searches, the concept of **sustainable development** appears in 1987, defined as "*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*" (Brundtland, 1987). The concept has a spatial dimension, and is based on three traditional pillars: economic, social and ecological (Petrişor, 2008). It is interesting to note that, based on the perspective of valorizing them in practice through specific policies, other "pillars" have been added (transport, cultural, political, institutional constructs). Consequently, integrating the practical aspects involved, sustainable development assumes the "*utilization of natural resources within the limits of the carrying capacity, conservation of biodiversity, ecological restoration of deteriorated ecosystems and environmental protection actions included in sectoral strategies of development in order to internalize environmental costs and assess the environmental impact*" (Petrişor, 2009) – *Fig. 6*.

Development in general and sustainable development in special represent processes where the relationships between natural, economic, social, and cultural systems is very complex and can be analyzed from an eco-energetic perspective (Ianoş, 2000). A much simplified and mathematical model is an approach to sustainable development based on four types of capital: natural, created by man, human (knowledge and abilities) and social (Petrişor, 2008). Regardless of the conceptual model, three reports to the United Nations have clearly shown that the development did not become sustainable (Bass, 2007), and the practical implementations remains a challenge.

The principles of sustainable development are tightly connected to other important concept of European spatial development. For over a decade, a series of important EU documents related to a balanced territorial development have substantiated from a spatial perspective the phrasing and implementation of the "territorial cohesion" concept (European Commission, 1999; CEMAT, 2000). The **territorial cohesion**, defined as "*balanced distribution of human activities within a territory*" (DG Regional Policy, 2004) can be achieved one the one side by a **polycentric** structure. The European Spatial Planning Observation Network (ESPON) defines the **polycentric urban system** as "*spatial organization of cities characterized by functional division of labor, economic and institutional integration, and political cooperation*" (Nordic Centre for Spatial Development, 2003), and based on two types of aspects: territorial **morphology** (number of human settlements, hierarchy and distribution) and **relationships** (fluxes and cooperation) among them (Nordic Centre for Spatial Development, 2005). On the other side, the approach to a balanced development of the European continent through policies

addressed to all types of territories start, from the 9th decade (European Commission, 1999; CEMAT, 2000; Council of Europe, 2001), from the affirmation of their morphological and functional diversity (geographic, ecological, economic, social and cultural).

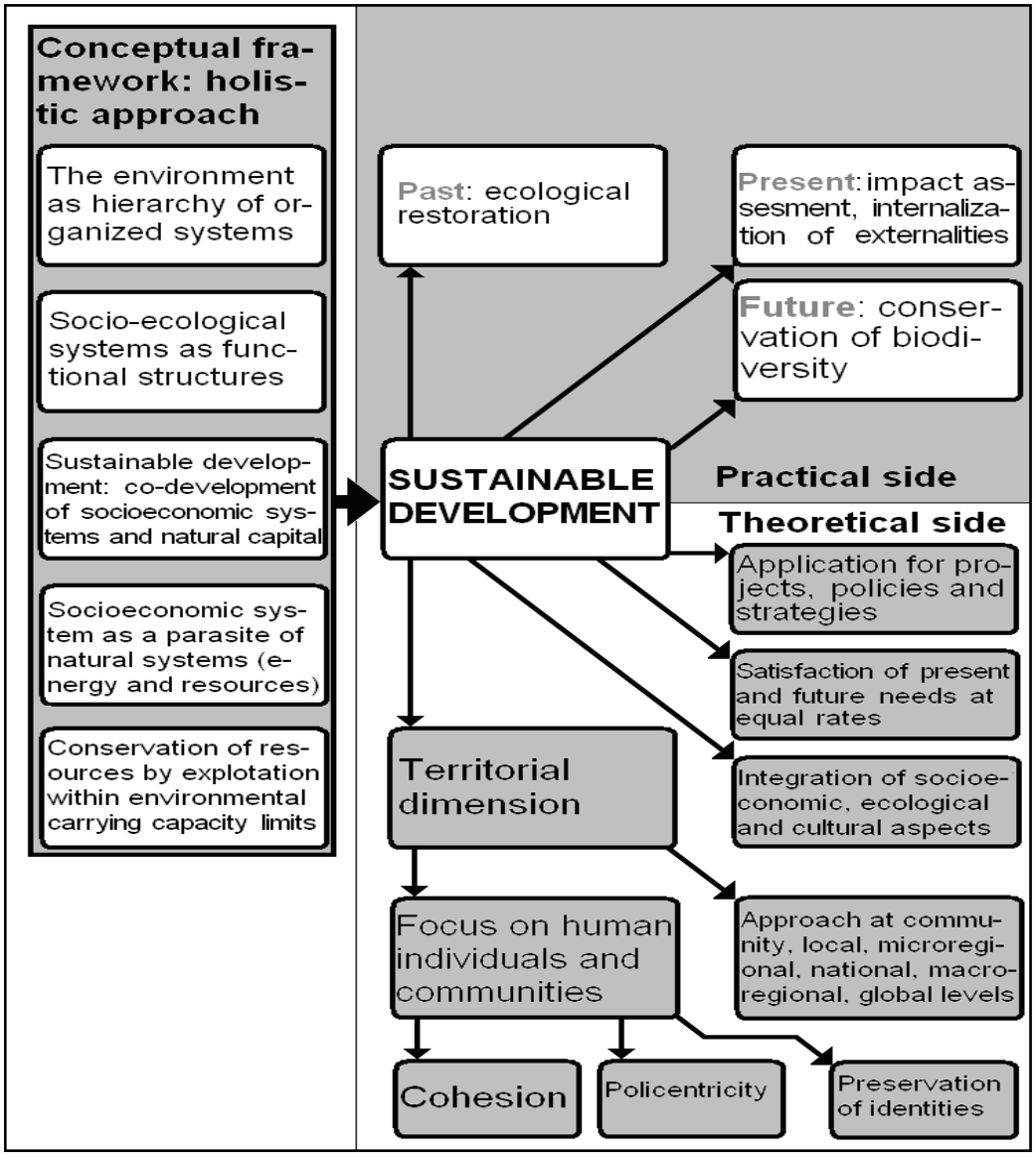

Fig. 6 - **The concept of sustainable development**

Dynamics of eco-diversity, biodiversity and geodiversity

As it has been shown previously, the urbanization process transforms natural systems in anthropized and then anthropic systems; population and economic activities concentrate, determining a differentiated consumption of resources, measured based on the concept of primary eco-energy, inversely correlated with, the degree of anthropization (Ianoş, 2000). Vădineanu (1998) shows that the processes adjacent to anthropization determine the simplification and fragmentation of natural habitats and loss of biodiversity. Concomitantly, urbanization results into the emergence of new structures, specific to the socio-economic systems (Sârbu, 1999), leading to an increased complexity of territorial systems (Ianoş, 2000), translated into the growth of geodiversity. If natural resources are managed in an environmental-friendly manner (Ianoş *et al*., 2009), consisting of a holistic managerial approach, primary diversity (biodiversity) is "amplified" statistically through the human contribution (Vădineanu, 2004), and geodiversity increases. According to these considerations, urbanization determines both increased geodiversity and loss of biodiversity; the economists sustain this hypothesis looking at the dynamics of the natural and created capital: the declining natural capital corresponds to the biodiversity, while the increasing created capital of socioeconomic systems reflects their geodiversity.

Conclusions

Diversity regarded in statistics qualitatively as different number of components and varied frequencies (Magurran, 1988; Dragomirescu, 1998), or in ecology as diverse structure, relationships, and functions (Vădineanu, 1998; Petrişor, 2008), allows for a coherent and functional analysis of the relationship between geodiversity and biodiversity. The anthropization of natural systems removes structural elements, determining functional damages and the loss of biodiversity, while the anthropic subsystems diversify through new structural elements and increased functional complexity during the acceleration of the urbanization process, resulting into the increase of geodiversity.

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ELEMENTS OF THE URBAN IMAGE IN LARGE HABITATS OF BUCHAREST

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Abstract: This article outlines the perception of the urban image at micro-territorial level based on an analysis of data resulting from a survey conducted in large human habitats in Bucharest. The identification so achieved reflects numerous spatial similarities of the perceptions of the urban image. The landmarks that the residents of Bucharest have in this respect are in line with the built areas as well as those related to the basic destinations of everyday life. This gives rise to quite a big issue: the people of Bucharest living in such large dwelling compounds are restricted to a superficial knowledge of space. They are impacted by a much too quickly changing urban policy and by permissive building investment rules that have lead to a variegated puzzle of post-communist restructurings where essence is attached to just trivial landmarks..

Key Words: *Bucharest, large urban habitats, urban image, survey*

Perspective on urban image

We live in a world where the image seems to be growingly important. The civilization of images as mentioned by Huyghe [1] is mirrored by cities more than ever before. Such images highlight the values they carry and they take the shape of lights, pictures, symbols or words which are as pleasant as possible and easy to associate. From street advertising to urban marketing strategies, images are necessary in order to draw the attention upon products that are more and more difficult to explore amongst the myriads of information. It is the images that point out the landmarks and identity of large urban communities by outlining their uniqueness and utmost importance for those targeted by such messages. This is done by defining the unique shape and character of the utmost importance for one who is sent the message to. But most important, the goals rely on promoting the respective city in the center of the global market and attract interest for helping its future development. But this isn't an easy task to accomplish and thus, local authorities need to rely first on the strengths accepted by the inhabitants which they manage. Therefore, clear strategic policies need to rely on studies which reveal the city landmarks in order to create a good city life.

Defining the image of a city lies in the interpretation of space and its components in their relationship with the local residents. The representativeness of landmarks is always subjective as it is affected by how the city residents approach their dwelling space. Likewise, it can be also complemented by urban policies that seek to add new values to a given area. In the course of their development, individuals discover a structural entity – an identity marked by shared values that gives them a sense of belonging more than anything else. Seen through its external forms, collective identity means an urban community that outlined its essential landmarks in a consistent manner. Otherwise said, identity develops as an element that gives coherence and continuity to such communities (Dematteis, 1994) and makes city look like structures and steady sets of actors and relationships that are forged in a given physical environment. (Fig.1).

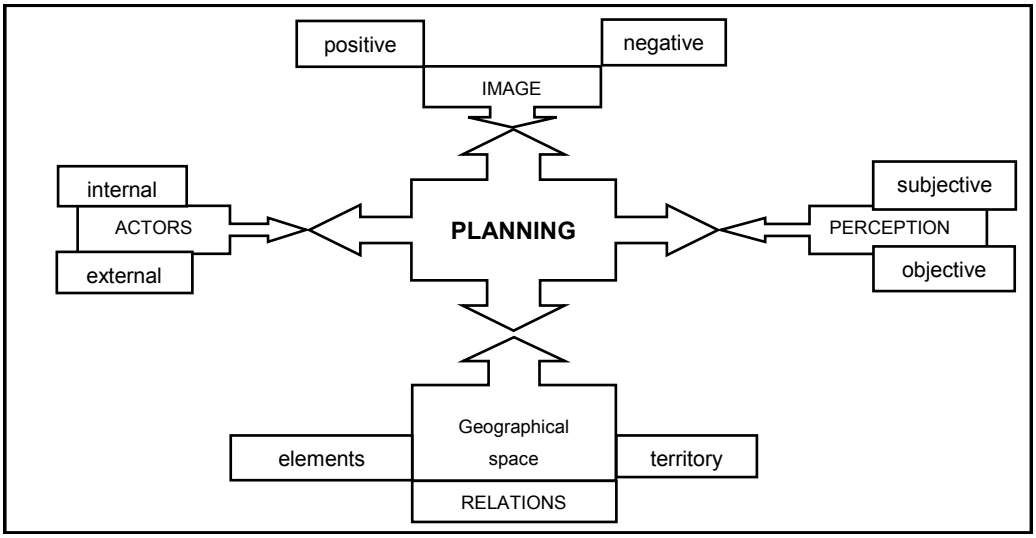

Fig. 1 - **Position of urban image in urban planning** (Gavriş, 2005, modified)

Differentiation emerges from values that accentuate the power and importance of certain hotbeds whose role is to organize the space by the attractiveness they exert but which are missing in this case. It is the individuals that picture out the landmarks in keeping with, not their importance, but their usefulness and significance for them. They so shape up mental images in order to better relate to the everyday necessities, to those items that determine their habitat, therefore a known area. The observers are those who determine a perception. The social class difference requires a choice of information that generates in its turn a number of spatially relevant activities and makes such activities distinct from each other (Kampschulte, 1999).

Associating images with an identity in economical terms causes a break in the cohesion between the two concepts. An urban image stemming solely from the economic dimension promotes only those interesting and significant elements that should be built on. It is differently understood, so that the identity of a place is the one where that particular place should be perceived. The identity of a place is a single set of identifiable associations of the place in question, which the administration wants to preserve or create (Rainisto, 2003).

Identity on the other hand would help preserve the existing elements and would take novelties on board with difficulty. Paradoxically enough, the better outlined the identity of a city is, the more attractive such a city turns out to be in terms of image and the more interesting in economic terms. An artificially built identity by the projection of images that are disconnected from the reality of the residents may cause problems as to the organization and management of such a city. For this reason, the strategies focusing on projecting the image of a city should be directly related to its residents and not separated from them as it usually happens.

One other issue arises from the fact that images are easy to distort and hard to embed in the minds of people. It takes time to create the image of a city or use its identity for development strategies. The countless failures in promoting cities can be explained by the ignorance of time and excessively sped-up processes.

The theoretical landmarks of the urban image are to be found in the work of Kevin Lynch – The Image of the City: paths, districts, edges, nodes, and landmarks. The image of the city existed in the consciousness of any individual but the theoretical side and explanation of such an image were given by Kevin Lynch, alongside Christopher Alexander, Jane Jacobs. Underscoring a quantified and assessed existing image gave a new turn to urban research. Such an image does not contain just a prioritization of the architectural elements but also the thoughts they elicit in the minds of people, where residents of the city or not. They become an important feature of the urban product which they can modify. Such an element is achieved by what Kevin Lynch mentioned as the *reading* of the city. Depending on this reading, various landmarks take shape that reflect its meanings and outline its identity.

For example, the reading of the city of Bucharest is done function of the architectural elements we associate with the communist era and other historical elements against the background of the current transition. The resulting identity is difficult to express by the amalgamated elements and associations. And perhaps it is exactly this variegated diversity that defines this city located somewhere between the Orient and the Occident.

Bucharest and its image

How appealing a city is to others has always been a constantly topical issue. Ever since Bucharest started taking shape, it has been approached as a representative element. In this regard, the importance attached to the capital city and the desire to make it known to others has involved a strong need for shaping a positive image that would be consistent with the requirements of others.

If up until the 19th century, Bucharest asserts itself by a multicultural image of its residents and by the status of a wretched but motley town – which is quite interesting to some of its visitors – the interest in an international affirmation suddenly appears at the beginning of the 20th century, particularly in the interwar period. Branded as a second Paris – “Little Paris”- Bucharest is the reflected image of the Parisian, French and Western values at the other end of Europe. In this regard, one may note the first elements of interest for the identification of mental landmarks and their branding at international level. It may well be said that the Bucharest of those times already was an important product on the European market of cities to visit, and the brand made by comparing it to Paris only underlined its attributes. There are not many references in the then and later literature to the negative elements of the city. Notwithstanding their presence in a bigger number and at a higher intensity than the values regarded as suitable for the name of Little Paris, the slums and workers’ neighbourhoods were integrated in the positive image so created. From the viewpoint of a marketing approach, the interwar moment represents the best branding of the city.

This image was totally destroyed in the communist era as the values of the two ideological systems went counter to each other. However, even in that period, the image of the city and its representativeness were regarded as rather important landmarks. The zonal and regional competition Bucharest was involved in made the leaders of those times to shape up a high standard city in terms of architecture. Therefore, architecture during the communist era was the identity element round which its image was created and promoted. Thus, the main values of the then Bucharest derive from its architecture: buildings and streets. Furthermore, a zonal branding of the image was attempted during the last years of communism by the construction of the Civic Centre. *An image of the image of the city* is so created; an unmistakable landmark for both the nation and the entire world. However, this branding of the urban image values in Bucharest stress on architectural structures almost exclusively. For this reason, those values

are currently perceived as negative ones by their association with the then ideology. But such a perception can be only found with most Bucharesters and not the rest of the population or common visitors. A telling example is the People's House, with a long-standing negative image for the Bucharest residents, but with a positive one for people coming from outside of the capital city.

As expected, the tumultuous changes in the history of the capital city have deeply affected the image and landmark identification elements. The balance between two ideological systems and multiple cultural areas left a negative mark on the city's identity. The opposition between old and new landmarks destroys the perception of elements, while also causing confusion and indifference to everything that might be regarded as a value.

Policy concerns for issues other than building on existing assets lead to no real importance being attached to the branding of the city's image in the transitional period. The landmarks of Bucharest were denied as they were associated with an ideology. The newly created landmarks have also come into contrast with each other and this dissolved the feeling of belonging to the urban values. The old historic centre of Bucharest suffers the most from such representativeness and value identity clashes.

By contrast, the situation is different in the large urban habitats (Ianoş 2004, 2007, Gavriş 2005). Erected almost entirely in the communist period, such habitats pay a toll to that respective image – namely architectural blueprints. The landmarks of a neighbourhood are given by its marketplaces and commercial outlets. This identification with commercial centres is easy to understand. The absence or shortage of common products made most of the population (unconsciously) relate itself to commerce as one of the most important values. Even in recent years (2000-2007), and not surprisingly so, this type of landmark has become even more visible with the inauguration of hypermarkets and malls. We will not dwell on the residents of Bucharest neighbourhood identifying themselves with the commerce landmark as it would be an incomplete image. There are yet other values Bucharesters relate to but the emphasis seems to be laid on the commercial ones.

It would be difficult to say what the current image of Bucharest is. The multiple viewpoints that may be taken into consideration in various analyses as well as the research scale could outline various different projects. However, one may notice a tendency to refurbish the built areas with overrated elements that are as trivial as those from past periods. The image is therefore promoted with a much bigger stress on detail elements than the whole. The branded and accepted image should be expected to be given by further urban developments, with little or no planning involved.

Image reflection in the large habitats

The urban image as an expression of accumulated individual perceptions is reflected by the landmarks K. Lynch identified, which brand not just the physical space but also the social one. Iconic landmarks recognized by most of the population create a feeling of belonging that extends over social and cultural divisions. So, the reflection of the image in the large habitats derives from the social characteristics that impact and continue to shape it rather than anything else.

We conducted a survey on 700 people in five large urban habitats: Berceni, Tineretului, Balta Albă, Aviației şi Militari (Fig. 2), but in the end we kept only 541 with a good representation at Bucharest's level as well as areas level on which we have focused the analyses (Table 1).

The features of landmarks existing in each area have been brought together in the analyzed questionnaires with a view to outlining an image that could be extrapolated to all habitats. One may note with the first landmark stated by respondents, the dominance of elements having a commercial significance, and the marketplace as a symbol stands out with 18%. Surveys conducted on a large number of respondents in the Berceni area indicated a high rate of such a landmark as the hospital, which holds several such units.

Fig. 2. - **Large urban habitats analyzed**

Table 1

Structure of the survey

Sex - %		Age (years) - %				Property - %	
Female	Male	- 25	26-40	41-60	over 60	Tenant	Proprietor
59	41	21	24	33	22	11	89

Past residence - %			Education - %		
Bucharest	Other city	Rural area	Lower	Medium	Higher
75	15	10	10	53	32

Source: *surveys conducted by author 2005-2008*

High rates of nearly 6% were also seen with malls and convenience stores that are however overtaken by hypermarkets whose numbers are growing in high-density areas. Commercial landmarks (mall, convenience store, hypermarket, marketplace) put together account for nearly 40% of the responses and this shows the place taken by commerce in the life of the large-habitat population. No surprise in how the development of the city goes along these lines, however the novelty and lack of specialization of such objects indicates the absence of other long-lasting icons. Habitats are therefore defined as commercial towns in themselves as

residents seem to be focused on commerce.

Of all path-type landmarks, the street prevails especially in habitats (Berceni, Militari) with wide avenues clearly cutting their way through the myriads of high rises flanking them. One may also include in the image created by the traffic landmarks such transport points as the airport, the bus station, the filling station, bus routes and junctions, these latter ones being defined as secondary elements. The traffic landmarks so explain people's increased motility in performing their various activities and they guide the sense of perception of the habitat limits.

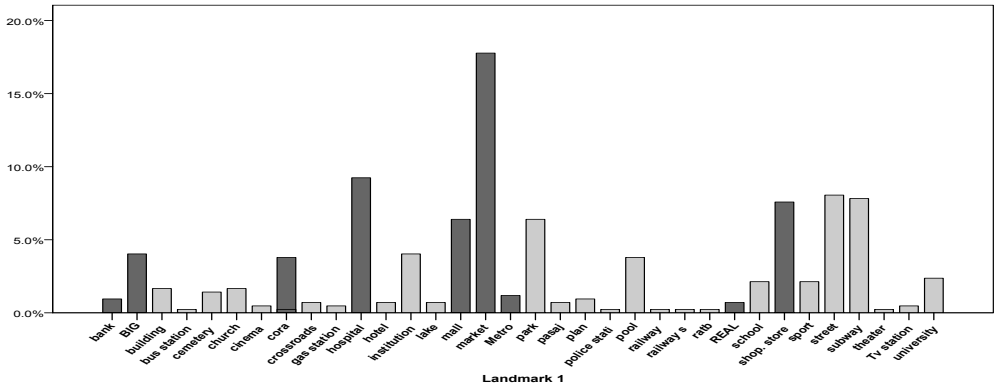

Fig. 3 - **Landmarks of the habitats** (1)

The subway next to the landmark passageway are the only junction-type variables that appear as an expression of the inflow/outflow concentrations. Overlaying traffic axes, they may accentuate the importance of streets even more. The subway connectivity relates to the commercial centres. This landmark is the interface between commerce and streets, therefore between commercial icons and the ways to them. These two items put together account for 60% of the perception of the habitat, which is one more indication of the social space being closely connected to commercial activities.

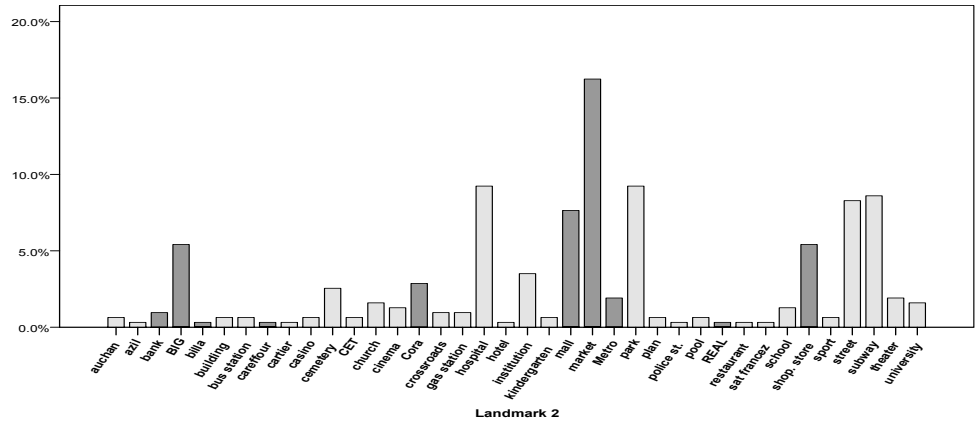

Fig. 4 - **Landmarks of the habitats** (2)

In terms of fixed but differently expressed landmarks, one may mention various institutions, universities, buildings, plants, schools, which appear as obvious elements in the delineation of a place by their functionality and relevance for the questionnaire. Dwellers of a habitat guide themselves based on such objects, and they so identify temporary landmarks. Such a delineation has a variable nature as it is preserved overtime so long as the landmark is in a direct relation with the resident through the function it fulfils. It may be preserved for further periods of time but its importance decreases. One element that can strike the difference between these statements is the size of the object in question. The bigger the size, the easier to notice, but that requires a good knowledge of that particular area. Some of the survey respondents were unable to tell the names of universities or plants in their own areas. As they emerge too fast, they fail to be correlated functionally and they are just expressed in local jargons.

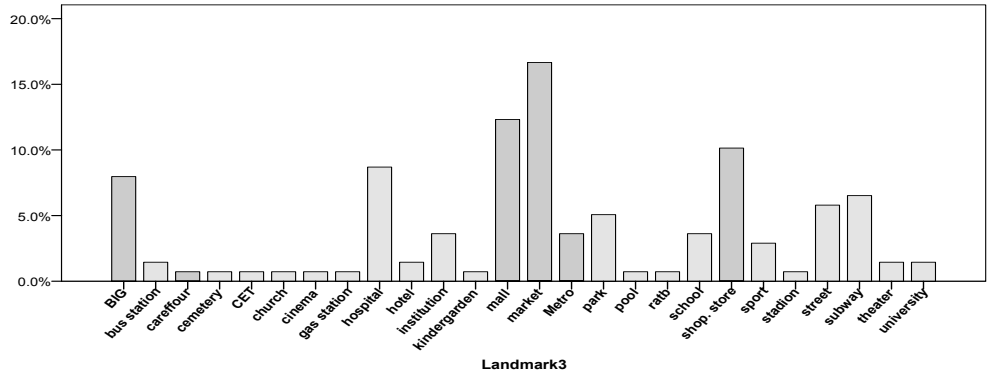

Fig. 5 - **Landmarks of the habitats** (3)

Landmarks perceived as limits such as: lakes, railtrack or parks are low in the standings of people's perception of the Bucharest habitat. They are unable to define the space such landmarks belong to and they most of the time evidently undersize the limits of their neighbourhoods. The knowledge of an area so restricts to just the big elements – park – 6% and probably lake, but they take the backseat. This indicates a limited recreation area-orientation. An exception to the above is the public pool, a top landmark in the Berceni habitat, even if it is an object and not a limit.

As regards the expression of the second and third landmark, no significant changes can be reported in the perception of the image of Bucharest habitats. Only such landmarks appear that define the area where the interview was taken. Overall, the two new tables complement the image of commercial objects being rated as the most important ones.

Distinctions between images of analyzed habitats are due to perceptions related to age, dwelling time, professional background, previous residence, and the holistic image generated by their actions impacts the behaviours of the inhabitants and echoes to the outside world. All this would follow all the city's components (Fig 6.).

The resulting image for each habitat is a little differentiated but it highlights the development lines of the area.

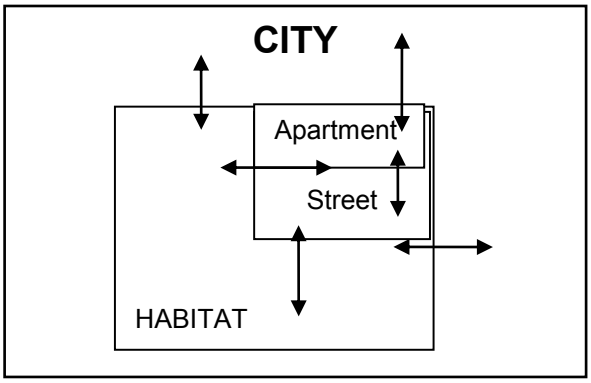

Fig. 6 - **Levels of urban representation**
(T. Schumacher 1978, modified)

In the large Berceni habitat, commercial outlets are dominant under conditions when the served population is numerous and they are spread all throughout that area. The marketplaces are located along an approximately median line of the habitat, and the large-sized commercial centres show a longitudinal expansion focusing on extremity areas. As shown earlier in the habitat structure, the high number of hospitals is an element difficult to ignore and such landmarks were mentioned as secondary to the commercial ones. Despite the non-priority nature of this secondary landmark within everyday activities, it stands out by the extension and size of the buildings and it is so difficult to overlook. The other, less important, landmarks are the result of the complexity of the interview. For this reason, the public pool is rated at over 8% as a secondary landmark and under 2% within landmarks 1 and 3. Given its seasonal function, it inevitably places lower, but it however has a strong significance no matter the ages of the respondents.

The large Militari habitat is characterized by the dominance of the street and junction landmarks. This also results from the functional structure of that area being quite tied with the segmentation entailed by the Iuliu Maniu Boulevard, where the subway stations and junctions play the role of channelling and dispersing the inflows into the said boulevard. The impact of buildings and institutions is bigger in Militari than Berceni and people are more likely to know their names. But this restricts to only schools, police stations and university – a quite clear indication of identity icons missing in that area. Furthermore, even if the centre of the habitat is clearly outlined, the extremes vary and have no major bearing on the local residents.

The small but highly populated areas of the other habitats located in the proximity of parks led to an orientation towards this specific landmark, as shown in all the three 6%-rating responses. The 3 habitats, Tineretului, Aviației and Balta Albă carry a more dissipated perspective of the image values, which is less centred on mundane commercial objects. For example, banks in the Aviației area appear as very important landmarks although there are more than 7 of them stretching over a small area and they are always located in heavy-traffic areas. They are complemented here and in the other 2 habitats not by large stores but convenience stores people feel emotionally closer to. This is in keeping with the higher ratings given by people who favour such stores. The overall picture suggests individualization centred on recreational areas.

The qualitative perception centred on recreational spaces reinforces the positive image of the area in question. The image is dominantly positive in Aviației and Balta Albă – over 80% of the respondents have a high appreciation of their neighbourhoods. The variables are a bit different because Aviației shows a uniform appearance and quality of the buildings and balanced proportions of the residents' occupations which focus on services or higher activities, while Balta Albă displays a higher level of community interaction (less manifest in the questionnaires). Their positive image is strengthened by the good assessment of the cleanliness of the streets. The responses for this variable are 50% - 50% for good and so-so.

Tineretului is looked upon as a quality area than enjoys a good perception, with 60% of the respondents saying it is good and 32% acceptable. The positive nuance stays when it comes to the streets they live on, but the assessment of the street quality goes down: only 47% think they live on good streets, whereas 37% say their street is acceptable. If in the other two habitats, the negative responses about the dwelling conditions are insignificant – 1%, Tineretului however scores a higher rate: 15% for the street assessment, but with a positive image kept – and only 1% think it is a bad area.

The negative image is not a determining factor for the analyzed areas. Even in the large habitats with possible issues, the perceived landmarks do not affect the area in a negative manner. Militari has a positive image but people there are indifferent to a certain extent and they accept the given situation. The responses are more or less evenly distributed: 42% think that the image of the neighbourhood-area is a positive one, 50% opine they live in an acceptable area, and nearly 7% point out negative elements in Militari. The negative rates grow as the distance to the downtown area grows while the distance to the western and southern limits diminishes. The singles' homes in the Cascadelor area are attached to a strong negative image, and the degradation continues at micro-spatial level. As a whole though, there is a more or less even distribution by categories of responses as o the street assessment – 30% of the respondents are happy with the street they live in, with a higher proportion of them in the northern and eastern parts of the area.

Varied assessments are reported in the large Berceni habitat, which depend on the knowledge of that area and the limits up to which the respondents imagined the space in question. There is a positive assessment overall – 49%, but also a significant proportion of responses (41) expressing a relative acceptance. As concerns the negative connotations, 10% think that Berceni is repulsive and for those in Militari, the topophobic elements are correlated with certain parts of the habitat being too expanded over the entire area. One supporting argument is that most respondents from the Resita marketplace area and the extension into the street, regarded as central for the image of Berceni, have a negative image and they do not take into consideration the areas near them which are well maintained and well seen by locals. Such responses are better differentiated in terms of street assessments where 40% have a good opinion of the conditions, 42% a fair one, and 18% are totally unhappy with how their street is taken care of and the display of the high rises stretching along it.

Strongly reflected in the media and scientific research works by their negative attributes, the large urban habitats have positive and satisfactory characteristics in the eyes of the residents. However, the positive side of the image and dwelling fund gets degraded as against other areas and, more recently, new residential compounds built with private money. The comparison between the habitat and state-built residential compounds that emerged after 1990 – Brancusi – places the habitat ahead of the rest. However, there are other residential habitats (Ferentari) that are perceived negatively as a whole by people living in that area.

It is important to say that the perception of an area of people who live in that particular area is much better than the perception of passers-by or those who do not live in its proximity. As such habitats were built form people coming from rural areas who had trouble to find a dwelling, they are accepted by their features, and the discontent grows function of age, education and income.

The image of a habitat depends on its morphological and functional elements. The buildings and the street network outline analogical expressions of the landforms, while bringing in negative features though: canyon-like streets, monolithic blocks, intersections – jams. Changing the image of a habitat would require intervening upon the above mentioned elements. Efforts are being made in this respect but, strangely enough, the effects are quite to the opposite of those pursued. Furthermore, such interventions are not always in line with the opinions and thoughts of the locals and there is no interaction between the players involve in the construction of the city and of the habitats.

One may therefore conclude that the overall image is a positive one but that there is a visible descending tendency as a result of the lack of interventions to build on and make the correlation with the overall spirit of the area.

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THE ROLE OF POLITICAL FACTORS IN THE URBANISATION AND REGIONAL DEVELOPMENT OF ROMANIA

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Abstract : The industrial development policy focusing on heavy industry, mainly the steel and machine-construction branches, was a characteristic feature of the socialist-type political systems of Eastern Europe. Its notable consequence for the system of human settlements translated into forcible urbanisation, but only insofar as quantity was concerned (artificial multiplication of towns and of the town population). As industrial units set up, some villages, functioning as dormitories, would be turned into towns: other would be integrated into the urban administrative territory; on the other hand, some dominantly rural residential districts would be attached to the town and a new type of settlements, connected with the construction of big industrial estates, would be built on empty terrain. As a result, a new type of town-integrated settlements would emerge, but the quality of their urban-type infrastructure falls far below that of traditional centres. Their individual character is marked by a fluctuating evolution, in the majority of cases much closer to countryside, that is, decreasing population and growing vulnerability connected with the units they had been engendered by. Considering the foregoing, we could say that these settlements, now part of the town, represent a distinct, intermediary category between the urban and the rural system and should be designated as such. The state capital determines a specific organisation of the state territory, as materialised in a certain pattern of communication routes and a specific layout of the other urban nuclei with macro-territorial functions. Bucharest's peripheral position within the national territory calls for the decentralisation of its functions concomitantly with remote regional metropoles becoming more important as spatial structuring nuclei. Bucharest's high degree of hypertrophy compared to the second city in the urban hierarchy, together with its distinct position within the Romanian urban system, asked for a distinctive organisation of its built-in area as early as the beginning of the 20-th century.

Key Words: *politics, urbanisation, industrial development, demographic fluxes, Romania.*

Introduction

Looking at the structure and organisation of the Central and East-European space, one finds traces of the Soviet-based model of planning, which in 1945 had already been experimented in the USSR for 25 years. That model was deemed appropriate for the states had just fallen under Soviet influence after the Yalta Conference. The model relied essentially on economic growth through hypertrophic industrial development, with highlight on industry, on the heavy industry in particular, the promotion of the working class and on defence-related investment, within an autarchic framework connected with the global economic constraints of the period. This was the substrate of Valev's theory of superstate complexes advanced in the early 1960s. According to that theory, economic integration was to be achieved by having the countries specialise in certain branches and bringing them together into macro-territorial complexes. Such a complex was the Lower Danube, conceived to include the former socialist states, with the Soviet Union playing the leading role. The Romanian and the Bulgarian economies were to specialise in the production of raw materials and semifabs, and become major outlets for the

high-processed items of East Germany, Czechoslovakia, Poland and Hungary, the "first-liners", forming kind of a buffer zone to Western Europe. Their integration - economical (CMEA-based), political and military (under the Warsaw Treaty), massively backed by the presence of Soviet troops in most of these countries, was to make this superstate complex viable, a nucleus open to other states and tempting them to adhere to it. However, the ever depleting living standard and growing interference of politics in the social life, triggered a chain of revendicative actions both on the social and the political domains. The first took place in June 1956, when Polish workers from Poznan rose under the slogan of "bread and freedom", followed by similar events in Hungary in the Fall of 1956, and the "Spring of Prague" in 1968. Noteworthy is the Romanian political Declaration of April 1964, claiming a country's right to find its road if domestic development. Other notable events were the split in the Soviet-Albanian relations and the consequences of the crisis affecting Soviet-Chinese relations at the beginning of the 6th decade of the 20th Century. Against that unstable background, the Soviet leaders tried desperately to reform the system, illustrated by Krushchev's weak attemptes to destalinisation at the 22nd Congress of the Soviet Communist Party (October 1961), or the Kosygin Reform of 1966. But, failing to attain the desired goal, at the July 1968 Warsaw Pact Meeting Brezhnev would put forward the limited sovereignty concept for the Eastern countries, the real substrate of their aggregation into the "superstate complex" of the Lower Danube and cooperation within the CMEA or Warsaw Treaty schemes.

What shaped a new, original geographical configuration for the Eastern-European states was planned development subordinated to the political factor, state control over the means of production and of exchange; the trend towards an equalitarian development irrespective of their different potential and industrial specificity, restrictive migration to large cities impeding their advancement; the collective-based development of agriculture; a close correlation between the production of these states and the economic and military needs of the USSR; autarchy and split with the West and the ambitious programmes of economic and social development and modernisation. That policy differentiated the Eastern European countries and its effects are felt to this day.

Table 1

Basic indicators of former socialist countries on the eve of their revolutions

State	Annual GDP growth			Living standard (1987)					
	GDP/ cap USD	1981-1985 (%)	1986-1988 (%)	Cars/ 1,000 capita	Tele phones/ 1,000 capita	Active farming population	Private units (% of GDP)	Exports of goods (% of GDP '88)	Urbanisation grade (% - 1991 *1983)
USSR	5 552	1.7	2.3	50	124	21.7	2.5	6.8	64.8*
Bulgaria	5 633	0.8	1.9	127	248	19.5	8.9	23.0	70
Czecho-slovakia	7 603	1.2	1.5	182	246	12.1	3.1	19.7	66.7*
DDR	9 361	1.9	1.7	206	233	10.2	3.5	13.7	77*
Hungary	6 491	0.7	1.5	153	152	18.4	14.6	14.7	61
Poland	5 453	0.6	1.0	74	122	28.2	14.7	6.4	62
Romania	4 117	-0.1	0.1	11	111	28.5	2.5	11.2	54

Source: Fetjö François, 1997, *La fin des democraties populaires. Les chemins du post-communisme*, Ed. Du Seuil, Paris.

The Soviet space model has certainly produced poorly developed and dependent economic territorial structures, but it also created a framework for the real modernisation of these states

that had neither industrial tradition, nor an evolved urban infrastructure. The main economic and social indicators of the former socialist countries on the eve of the revolutionary year 1989, list Romania at the bottom of the table, with GDP stagnant values (Fourcher, 1993) (Table 1).

Socialist towns in Romania (1945-1989)

As previously discussed, the urban category seriously marked by rural features as far as quality is concerned, are the settlements turned into towns during the 20th century, mainly after 1945, when the forcible industrialisation drove entailed big migratory fluxes from the countryside. This politically monoeuvred oversized urbanisation was not correlated with the urban centres' absorption capacity.

Fast-going development, associated with permanent austerity programmes, triggered serious dysfunctionalities of the built-in structures materialised in the discordance between built area and infrastructure. The question is, whether changing the status of rural settlements for a town rank does really have a major impact on their evolution, whether turning a commune into town means faster development than if left at the rural level. In order to find it out we analysed a sample representative for the evolution of the Romanian urban system namely, settlements turned into towns after 1945.

As a result, four urban categories were depicted as follows (Fig. 1):

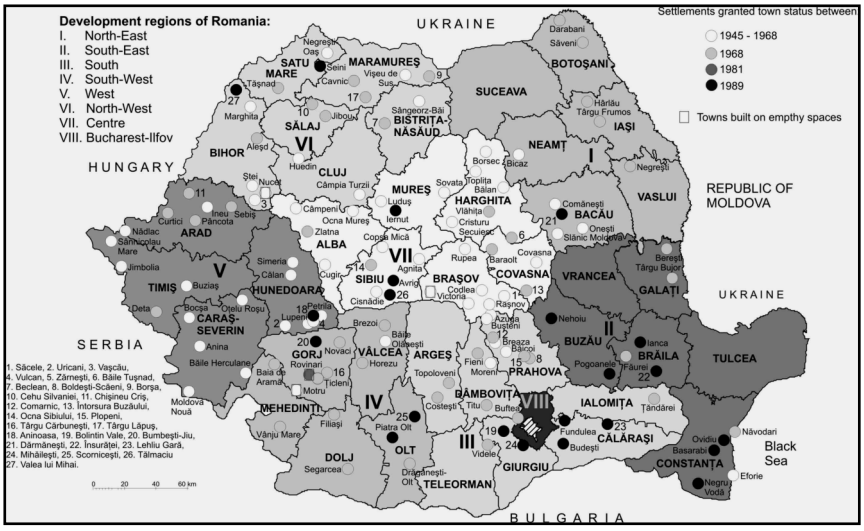

Fig.1 - **Settlements granted towns status between 1945 and 1989.**

1. Settlements raised to town status between 1945-1968, in line with the Soviet-type brand of socialism, and administrative-territorial division by regions and districts of Soviet inspiration.

This category groups the largest number of towns: 56, of which only 12 have advanced in the urban hierarchy. Noteworthy are *Oneşti* and *Zărneşti* (which gained 49 and 47 seats, respectively), after petrochemical and machine-building units were set up there. At the other end of the spectrum, are some towns from the western Romania which registered dramatic decreases of population through depleted birth rates (Banat and Crisana regions) and

emigration of part of the active population either to large cities (Timişoara, Arad, Oradea, Satu Mare and Baia Mare) or abroad. A representative case make the towns of *Nucet* and *Vaşcău*. The former, developed due to mining, is one of the few towns in Romania without railroad access. Its population dropped 3.5 times, the town losing 156 seats in the national urban hierarchy. Vaşcău registered a 32.5% decrease of population and lost 104 hierarchical seats. Both localities fall into the small town category, with a dominant mining profile.

Other small towns, agro-industrial generally, though not undergoing major demographic shifts, have nevertheless lost important positions in the urban system (22-51 seats): *Nădlac* and *Jimbolia* (customs points), *Ineu*, *Câmpeni*, *Sânnicolau Mare*, *Ştei*, *Huedin* and *Vişeu de Sus*.

A category recording striking rank regression are the mining towns, whether in Petroşani Depression and Gorj Couty (*Petrila*, *Lupeni, Motru* and *Rovinari*) or in the Banat Mts. (*Anina*, *Moldova Nouă*). Moreover, the decline of mining was not associated with effective reconversion of the labour force to other activities.

Touristic cities, in their turn, experienced a demographic upsurge, but soon enough registered major losses in the urban hierarchy (*Azuga*, *Băile Herculane*, *Băile Olăneşti*, *Borsec*, *Breaza*, *Buşteni*, *Buziaş*, *Covasna*, *Eforie*, *Slănic Moldova* and *Sovata*). In the same situation are certain industrial towns situated in the proximity of some regional metropoles (*Rupea* and *Săcele* near Braşov, *Cisnădie* close to *Sibiu* etc.); others have a high-polluting industry on their territory, structural readjustment entailing massive lay-offs (*Copşa Mică* and *Bicaz*).

2. Settlements nominated towns in 1968, in the wake of a policy of estrangement from the USSR; a new administrative-territorial organisation with the county as basic unit.

That moment marked the beginning of a transition period for the Romanian urban system and, as some towns were evolving at different rates, changes in the relationships among the urban centres would emerge. Out of the 48 towns listed in this category, only 13 had a positive hierarchical evolution eg. *Năvodari*, registered an explosive upsurge of 129 seats after turning industrial and discharging port activities, *Târgu Frumos* (given the rank of town for the second time, after losing it in 1950) mounted 69 seats in the urban hierarchy. The diversification of its industrial profile turned it into a local convergence centre in the area spanning the distance between the towns of Paşcani and Iaşi. On the other hand, this same category could experience rank regression, associated occasionally with demographic losses (*Cavnic*, *Chişineu-Criş*, *Curtici*, *Ocna Sibiului*, *Vânju Mare* and *Zlatna*).

3. Settlements raised to town rank over the 1968-1989 period showed relative stability of their administrative-territorial structures.

Throughout that interval, one town alone, *Rovinari*, a mining centre in Oltenia coal basin, registered a positive dynamic, gaining 58 seats in the urban hierarchy and a 58.5% increase of inhabitants.

4.Settlements declared towns in 1989, when the communist system was deteriorating and the evolution of the urban system was marked by relative turbulence.

This category lists 23 local polarisation centres, most of them discharging agro-industrial functions. The decision to turn them into towns was taken in order to strike a balance between regional socio-economic phenomena, on the one hand and to consolidate some county urban systems, on the other (Buzău, Călăraşi, Brăila and Giurgiu) (Ianoş, Tălângă, 1994). The urban

evolution was affected by the economic and social situation of transition from the centralised economy to the market system. In most cases, the result was fluctuating evolutions, with stagnations and mild decreases of population. An exception was the town of *Mioveni*, the largest and most dynamic one in this category. As investments were put into "Dacia" car factory it took 30 more seats due to a 66.2% population growth.

Positive evolutions registered also mining towns: *Bumbeşti-Jiu* and *Aninoasa*; the dominantly industrial *Avrig*, *Ovidiu* and *Nehoiu*, and the agro-industrial *Ianca* and *Scorniceşti*. However, forecasting their long-term evoluation is hazardous because of the short time elapsed since they have been assigned that rank, and the economic-social convulsions shaking the Romanian society due, among others, to an incoherent legislation.

The policy of promoting heavy industry development, of the steel and building-material sectors in particular, was characteristic of the Eastern-European socialist political systems. It also had a major impact on the settlement system (artificial, forcible urbanisation got only as far as quantity was concerned; artificial numerical increase of towns and of the urban population ratio). Attaining that policy goal involved four lines of approach: the transformation of some villages into towns by the implantation of industrial units; integration of some villages ("dormitory settlements") into the urban administrative territory; englobing some dominantly rural districts into the built-in area, and last but not least, the construction on empty terrain of some towns connected with big manufactures. The outcome has been a type of settlements, integrated into the urban environment, which in terms of quality, of the urban-type infrastructure fall short of traditional urban centres.

What characterises them is a fluctuating evolution, closer to rural settlements, with population decreases and a high degree of vulnerability given that the industries that had generated them are regressing. Therefore, these settlements, presently part of the urban system, represent actually a distinct category, standing in-between the urban and the rural systems, and should be depicted as such.

New towns in Romania (1990-2009)

The latest category, settlements promoted to the position of town in the post-communist era (1990-2007) including 54 polarisation centres. Is rather heterogeneous functionally: *Otopeni*, *Teiuş* and *Bechet* are specialised in transports (airport, railway knot and fluvial harbour respectively); *Baia de Arieş*, *Băbeni* and *Berbeşti* in mining; *Fiebinți-Târg*, *Miercurea Nirajului* and *Potcoava* in oil and gas exploitations; *Amara*, *Geoagiu* and *Tismana* in tourism; *Turceni*, *Sângeorgiu de Pădure* and *Roznov* in industry (thermal power stations and chemical industry); *Ardud*, *Bălceşti*, *Ciacova*, *Dăbuleni*, *Gătaia*, *Pecica*, *Murgeni*, *Sântana* in agriculture (Fig. 2).

They also have distinct locations, some are found in deeply rural areas (*Făget*, *Baia de Arieş*, *Dăbuleni*, *Geoagiu*, *Bălceşti*, *Pătârlagele*, *Tismana*, *Murgeni*), others in the proximity of polarising urban centres (*Otopeni*, *Popeşti-Leordeni*, *Voluntari*, *Chitila*, *Pantelimon*, *Măgurele*, *Bragadiru*). The majority originate from communes with many villages under their administration, a very dispersed population and a low technical-constructional endowment.

This trend of evolution in the rural-urban interface is the increasing transformation of communes, viewed as local polarisation cores, into towns (*Law No. 351/2001, annex II-6.1.* designated 17 zones with no town within a radius of 25-30 km which were to develop urgently into localities with inter-communal servicing role). In this way, the Romanian urban system was enlarged (2001-2005) with 53 of the 58 settlements raised to town status after 1989.

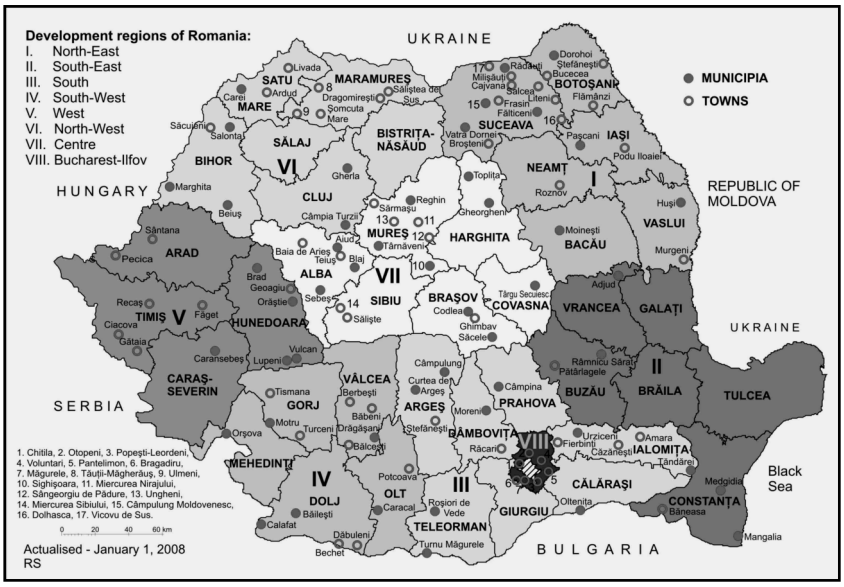

Fig.2 - **Settlements granted towns status between 1990 and 2009**

Their demographic size, physiognomy and moreover functional profile justify our assumtion that post-revolutionary urbanisation, just like the urbanisation pursued in the years of centralised economy, had an extensive, quantitative character rather than intensive, qualitative attributes capable to create better urban confort and functional convergence between the top and the bottom of the urban hierarchy (Săgeată, 2004, 2006).

Multiplying the number of towns, in the conditions in which large areas are not, or are little polarised by an urban core, is a positive intention, but it tends to remain simply declarative if these towns are not capable to grow into real local polarisation nuclei and play a coagulating role in the territory.

Besides, the minimum legal criteria attached to town status are usually scarcely met, many settlements preserving strong rural traits.

In the absence of standards of quality matching the urban environment, urbanisation imposed by legislation has more often than not a negative impact on the local communities making them lose the EU funds earmarked through rural development programmes. In our view, establishing a category of settlements intermediate between the urban and the rural, similar to the urban communes of the interwar period, would be a solution. These settlements are to be assimilated to the rural, but act as nurseries for the new urban settlements which should rise to town status only after having met the necessary legal criteria.

And last but not least, the third evolution trend which affected the Romanian settlement system after 1990, was municipium status assigned to a great many towns. While the first years of the third millennium saw some communes raising to town status, the last decade of the 20th century, basically the first phase of transition, witnessed some towns being declared municipia. So, all of the 47 new municipia emerged in the post-revolutionary period (1990-2006) received

this rank over the 1993-2003 period, 37 of them before January 1, 2001.

The question is, what were the criteria behind pushing small towns (with less than 20,000 inhabitants (e.g. *Urziceni*, *Brad*, *Salonta*, *Topliţa*, *Orşova*, *Vatra Dornei*, etc.) to the top of the hierarchy, and moreover, if those legislative initiatives really boosted the socio-economical development of the respective local communities.

Where as most municipia boast a complex industrial profile, some are one-industry towns (*Câmpia Turzii* and *Hunedoara*), agro-industrial towns (*Urziceni*, *Salonta*, *Roşiori de Vede* and *Caracal*), towns specialised in the forestry economy (*Brad*), or tourism (*Vatra Dornei* and *Mangalia*). Just like in the 1965-1980 interval, the diversification index of industrial branches registered highest values in those municipia which had experienced soaring developments in the years of centralised economy. Hence their vulnerability, caused on the one hand, by artificial production relations between industrial partners and on the other hand, by the disparity between the town's industrial profile and the resources of the urban influence zone. As a result, inter-municipia relationships also suffered some changes.

There are cases when location was the factor that determined granting a municipium status to some towns. Thus, in intensely rural areas, with small-town networks (e.g. in the Apuseni Mts, in the Getic Piedmont, or in south-western Oltenia), some polarising centres should be singled out to coordinating the socio-economical activities. Turning such towns into municipia (*Brad*, *Drăgăşani*, *Calafat*, *Salonta* or *Topliţa*) might attract investments liable to contributing to their becoming growth poles for the respective zones.

Assigning a municipium rank to towns situated on the median or lower scale of the urban hierachy widened existing gaps in the municipium network of Romania, so that the network is showing an obvious disproportion in terms of demographic size, economic and location potential. The municipial population varies between 1,926,334 inhabitants (Bucharest) and 10,996 inhabitants (Beiuş, March 18, 2002) and if Bucharest is left out of the equation, then the relation between extreme sizes slides from 175/1 to 23/1. The fact that the demographic size of some municipia occupying the higher ranks of the hierarchy is bigger than some counties (e.g. Covasna, Ilfov, sălaj, Tulcea, Giurgiu or Ialomiţa) calls for deep-going reconsideration of their administrative pattern by the creation of districts inside their boundaries similar to those existing in Bucharest. Densities within the built-up area of these municipia also vary widely, from over 10,000 inh./km^2 (even 21,855 inh./km^2 in Oneşti to a record high of 42,602 inh./km^2 in Orăştie) to under 1,000 inh./km^2.

In view of the above, we assume that municipium status after 1990 was often considered the optimum, even miraculous solution, for the socio-economical revival of some declining towns, and a chance to attract investments therein. This way, a disparity cropped up between their real development potential and the political-administrative decisions which tended to blur the dysfunctions produced by the excessive industrialisation drive of the old centralised economy. Rapidly, the lack of prospects of such a development model became apparent, their socio-economical progress being little stimulated by legislative initiatives. Therefore, reshuffling the network of municipia is an imperative necessity, supposedly affecting the towns with under 50,000 inhabitants, which might be demoted from this rank.

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VINEYARDS IN THE REGION OF STRADEN (AUSTRIA) – ELEMENT OF THE AGRARIAN CULTURAL LANDSCAPE

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ABSTRACT: Vineyards in the region of Straden represent the element outlining the agrarian cultural landscape of this area. Viticulture was introduced by the Romans, and it has been practiced from time immemorial both for the wine, used in the daily meals, and for the religious practices. Viticulture represents a source of income for the people, who try hard to maintain a typical wine country in their characteristic way.

Key Words: *vineyards, region of Straden, elements, agrarian cultural landscape.*

Introduction

Within the context of a more and more aggressive globalization, shown in different areas as economy, culture, architecture or language, accepting, researching and preserving the agrarian cultural landscape sets as a necessity for an efficient preservation (and through it) of the local, regional and even national cultural identity.

Thus, it is necessary to accept and use the meaning (definition) given to the cultural landscape by the European Landscape Convention; the landscape means *"an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"* (The European Landscape Convention, 2000).

The natural (physical) characteristics of the area are influenced by the local natural aspects as climate, soil, water resources, mineral resources etc.; these are attributes of the natural landscape which establish the landmark of human actions development, each anthropic activity inducing changes, the visible sign of man's interference being represented by the cultural landscape.

Methodological approach

Elaborating this article has been a complex process, consisting of interdependent stages, each one with a precise function:

The preparatory stage (data accumulation) consisted of:

- Formulating the research objective: Determining the elements of the wine-growing cultural landscape in the region of Straden;
- "Invest in people!" PhD candidate with studentship in "Project co-financed from the European Social Fund through the Sectoral Operational Programme for Human Resources Development 2007-2013";
- Delimiting the territory to be examined;
- Choosing the best research methods and measures;
- Consulting the bibliographic sources referring to the territory indicated (official, public or archive documents; unofficial written sources – the press, periodicals, books; statistical

sources – rough or processed), text selection, methodical reading, summarizing and comparing the texts and examining the unwritten sources (objects and other materials); study of the cartographic sources.

The analysis stage mainly consisted of:
- Storage and systematization of data;
- Processing of data from the first stage.

Within the last stage, which is deliberative, the elements of the cultural landscape, the theoretical conclusions, and the text editing have been emphasized.

The methods used for studying the elements of the landscape belonging to the region above mentioned "have constituted themselves in a group of (practical) procedures and (theoretical) measures chosen in order to economically obtain" (Muntele, p. 25) the desired results. Choosing the above mentioned methods is the first stage of the research (data accumulation), these methods being used throughout the entire research process.

The *cultural landscape registry method* was chosen and used as a specific method for the cultural landscape research. Using this method in this case (the systematic registration of its elements in a hierarchically structured registry) conclusive data have been obtained, which were constituted in the basic structure for analyzing and classifying the elements of the wine growing cultural landscape in the region of Straden.

The registry includes specific sections, where – through functional and/or practical approaches – data related to the geographical coordinates, dimensions, structures, features, functions and evaluation criteria of the cultural landscape elements are underlined.

In order to obtain the results initially proposed, methods specific to Geography or other sciences were also used, such as: *bibliographical documentation*, through which we accumulated "useful data (related to certain objects, processes and phenomena) which is then used especially for drawing up the evolution of the phenomena until the execution of the respective studies" (Cocean, 2005, p. 132); *the analysis method*, which facilitated us the knowledge of elements of the wine growing cultural landscape through their psychological decomposition and deep study both of the component parts, with their quantitative and qualitative characteristics, and of their place and role within the whole; *the cartographic method* (representation of the studied region on the thematic map) and *the statistical method*, "useful in the processing of data obtained through the other mentioned methods".

Region of Straden. Physical-geographical particularities

The region of Straden, also called the *Wine Country*, is located in the South-East part of Steiermark province (Austria) – a land characterized by diversity both from the landscape point of view and from the cultural point of view. This province is composed of eight localities: Straden, Kronnersdorf, Hart, Nägelsdorf, Schwabau, Wassen, Wieden and Markt (Fig. 1).

The locality of Straden is situated over the Sulz and Poppendorf rivers valley, on a range of hills extending up to the Mur valley in the South. These are also the elements dominating the Straden landscape. Marktl is located at the extremity of the Sulz river valley in the East.

The prominent range of hills in the West is forming the substratum on which Straden town is

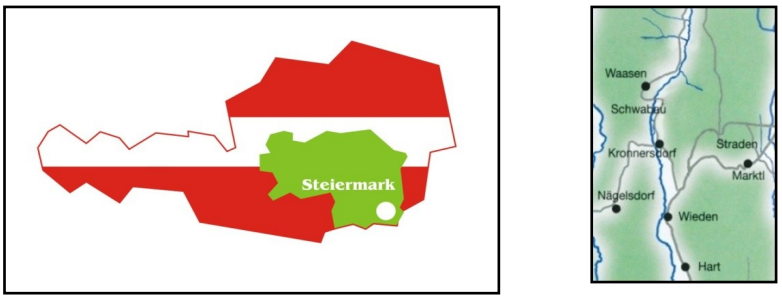

Fig.1 - **Region of Straden, Steiermark province (Austria). Positioning of the region in the territory**

built, with its three churches noticeable from far away. In the valley of Poppendorf river there are the localities Waasen, Schwabau, Kronnersdorf, Wieden and Hart. The west side of Straden is formed by the range of hills extending between the Poppendorf river valley and the Gnas valley, as well as the valley of Gnas river itself, where the locality of Nägelsdorf lies (M. Messner, 1999, p. 12). The ranges of hills and valleys, as well as the volcanoes in the neighbourhood, still dominating the morphology of this region, are the final result of a history persisting for millions of years.

In this region, climate is characterized by warm summers and cold, moderate winters. The average annual temperature is of 8°C. In July, the warmest month of the year, the average temperature is of 18.9°C, while in January, the colder month, -2.4°C. The fall-outs are in sufficient quantities. Fog is present between 30 – 50 days / year, and the speed of wind is generally low. The risk of freezing is insignificant, as altitude increases. Because of this reason surfaces planted with vine are present in the region of Straden in their great majority on slopes, and due to the special "requirements" for temperature and sun exposure, they are oriented mainly towards south, but also towards east and west.

In this area, there are mainly brown soils on loose sediments. Due to indurated strata, these soils tend to form a dam of the underground water. We encounter here the pseudogleic soil, which is a soil tending to moisten or dry, depending on the quantity of precipitations. If the soil moistens it expands, and if it dries out it decreases its volume; thus, during draught, fissures appear in the soil, this fact affecting the roots of the existing vegetation. Brown and red clay is often found on the volcanic rocks. These soils were formed during much warmer climatic conditions of the Tertiary, that is why they are also called relict soils (Brigitte Schicho, 1999, p. 17). Alongside the climate, soil represents the basis of the wine (agricultural) production, as well as of the landscape scenery.

Wine-growing cultures - Element of the agrarian cultural landscape

General aspects. The extra-muros field in the region of Straden is being used in its majority for agriculture and for extending the forest surfaces. The peasants' and foresters' way of life has a powerful effect on the shape of rural landscapes, as well as on the temporary changes of the landscape aspect. "Ploughing, sowing, harvesting of crops; cutting of hay or gathering silage; moving herds or flocks within or across the land; planting, thinning, felling of forest trees – *these bring change, colour, pattern and movement to the landscape, often in ways that are special to a particular place"* (European Council for the Village and Small Town, 2006, p. 10).

This region presents a diversity of elements of the agrarian cultural landscape, such as: vineyards, orchards, corn fields etc.; however the image of the agrarian cultural landscape is marked out by the presence of the vine cultures, which gives its specific character.

The first great blooming of the vine in Steiermark province is determined by the decree of emperor Probus (3-rd century after Christ), which abolished the Italian monopoly of wine production and permitted the cultivation of noble vine outside Italy. In 1526, viticulture is extending considerably, but the wars of those times caused its decline. Maria Theresia (1740 – 1780) and Joseph (1780 – 1790) took measures for the reconsolidation of viticulture.

In the last decades, the region of Straden has had significant growth in the vine culture (Lackner, Ficzko, 1999, p. 272).

Classifying the elements of the wine cultural landscape. The vineyard cultural landscape is emphasized through its characteristic elements, which contribute in a certain way to outlining the specific character of the region. According to the criteria of shape (Glink, Meyer, Schottke, 2007), there are three main types of elements:

1. *Dot-shaped elements*. They are represented in the landscape by the concrete pillars (with height of 2 metres), which have the purpose to sustain the wires tiding the vine.

2. *Row-shaped elements*. They are represented by the rows formed by pillars, wire and vine, but also by the grass surface separating the two neighbouring parcels (in the shape of a grass layer, wider than the usual distance between rows, that is 2.50 m).

Fig. 2 - **Vineyard (rows of pillars), Hart locality, Steiermark province (Austria)**

3. *Area-shaped elements*. They are noticeable within the landscape in the shape of parcels of land occupied with vine and of buildings for processing, preserving and commercializing the wine products.

Vine gardens are usually located on inclined surfaces, of rectangular or trapezoidal shape, their dimenssions varying between 200 m² - 2 hectares, as well as between 3 – 6 hectares or even more.

Table 1

Elements of the wine cultural landscape of the Region of Straden (Austria)

Dot-shaped elements	Row-shaped elements	Area-shaped elements (surface)
- concrete pillars	- rows of pillars, wire and vine - rows of grass for separating the parcels	- parcels of land occupied with vine - buildings for the processing preserving and commercializing the wine products (buildings)

Method of maintaining the vineyards throughout the year

Along with the mechanization and rationalization of the viticulture (after 1956), a reorientation of the culture was imposed, from the culture of stakes, which supposed much more manual labour, to the wire culture, also called high or sophisticated, which makes possible the automatic processing of the surfaces (Lackner, Ficzko, 1999, p. 272).

In this way, the first work is cutting the vine. Right after harvesting the workers cut the vine. Normally, this process takes place if the weather allows it (if there is no risk of freezing), in the month of January, respectively February. The main vine is tied up and fixed to the wire.

The flowering takes place in April. At that time grass is growing between the cultivated rows, grass which will be cut in order to cover the vines cut before with an organic layer of grass. Every vine that will grow afterwords will clamber and fix to the wire culture. It will currently be sprayed with insecticide, depending on the weather conditions or on disease cases. If the new shoots or the leafage grow too high, their points will be cut. Grass is cut constantly, and then the vine roots are covered with an organic layer of grass.

If the weather allows, at the end of August – beginning of September the harvesting of the new variety of grapes will begin.

Applying the wire culture and harvesting involves an unceasing process. In the past, the workers harvasting grapes cut them and put them into wooden or metal buckets; the buckets were transported to the crusher, which was found – in most cases – near vineyards or in cellars. Nowadays the harvest (the grapes) is treated much more gently. The grapes are put into plastic caskets, gently and without being pressed; they are transported using a vehicle and they are immediately processed. Today modern devices in the cellars are: a) *the Decorticator*: it separates the individual grape berries from the cluster; b) *the must pump*: it pumps the must gently into the crusher; c) *the crusher*: it functions hydraulically (hydraulic grape press), implying the best handling for the harvest, so that it is properly preserved. In the case of the wire culture, modern devices have multiple functions: for example grass can be cut and chopped (in order to be used as organic manure), and at the same time, through spraying, diseases can be controlled, respectively parasites specific to vine cultures.

Viticulture in the statistical data

Presently, the wine growers administer vineyards occupying a surface of 33.44 hectares. These vineyards (vine gardens) belong to various owners, and they are associated in enterprises.

Table 2

Vineyards - surfaces in hectares

Region	Total vineyards		Vineyards according to the production capacity				
Straden	Enteprises	Surface	Productive		Still unproductive		Total of the planted surface
			White wine	Red wine	White wine	Red wine	
	67	33.44	25.99	6.27	1.04	0.15	33.44

According to the Statistik Österreich, Wien 2000

According to the existing statistical data, there are a number of 67 wine growing enterprises registered, which merchandise their different varieties of wines in taverns (wine cellars), (Buschenschänke).
The commercialization of wine growing products takes place in various different phases:

- Selling grapes. The bigger wine cellars buy, right after harvesting, grapes from vineyards or from the collecting places. The price is established individually depending on the variety or on the sugar content.
- Selling from the grape crusher: unfermented wine, must, is sold directly to the buyers. It is used for juice or for wine production.
- Selling from barrels: Fermented wine is sold in big quantities from containers, barrels of small sizes or other recipients, from the yard or the cellar of the wine grower. Distilleries also sell big quantities.
- Selling bottles of wine: Wine as the finite product (garnished, filtered) is poured into bottles of 0.75 – 1.00 l, rarely in bottles of 2 liters, labelled and offered for sell.

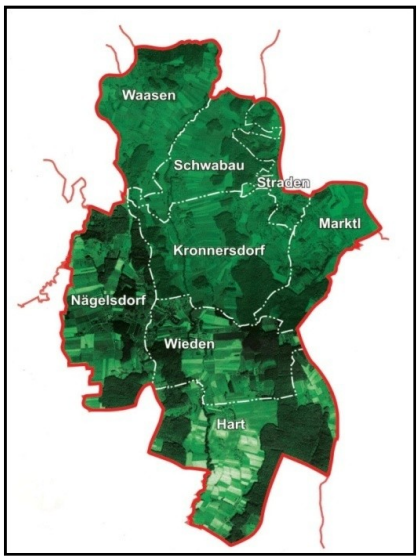

Fig. 3 - **The 8 localities of Straden, where we find wine growing enterprises**

Fig. 4 - **Tavern, Wieden locality, Steiermark province (Austria)**

The right of the wine growers to sell wine from their own production or other products produced in their own yard, derives from a law of the Habsburg monarchy, issued during the reign of Joseph the Second (from 1784).

Out of the total f the surfaces of 33.44 hectares planted with vine, we can notice the presence of white grape varieties, which occupy a surface of 27.02 hectares, being followed by the red grape varieties, with 6.41 hectares. As for the vine varieties in this region, the Welsh Riesling is the dominant one, followed by the Burgundy white wine, Müller-Thurgau and Riesling (Table 2).

Table 3

Surfaces cultivated with varieties of white grapes (Surfaces in hectares)

Total surface	**27.02**
Bouvier	-
Frühroter Veltliner (Malvasier)	-
Furmint	-
Goldburger	0.13
Grauer Burgunder (Pinot Gris, Ruländer)	1.54
Grüner Veltliner (Weissgipftler)	-
Jubiläumsrebe	-
Müller-Thurgau (Riesling x Sylvaner Rivander)	**4.85**
Muskateller (Gelber und Roter Muskateller)	0.54
Muskat-Ottonel	0.10
Neuburger	-
Roter Veltliner	-
Rotgipfler	-
Sauvignion Blanc (Muskat-Sylvaner)	2.64
Scheurebe (Sämling 88)	1.28
Sylvaner (Grüner Sylvaner)	0.21
Traminer (Gewürztraminer, Roter Traminer)	1.24
Weisser Burgunder (Weissburgunder, Pinot Blanc, Klevner) und Chardonnay (Feinburgunder, Morillon)	**5.75**
Weisser Riesling (Riesling, Rheinriesling)	1.29
Welschriesling	**7.24**
Zierfandler (Spätrot)	-
Other varieties of white grapes	0.22

According to Statistik Österreich, Wien 2000

Table 4

Surfaces cultivated with varieties of red grapes (Surfaces in hectares)

Total surface	6.41
Blauburger	0.66
Blauer Burgunder (Blauer Spätburgunder, Blauburgunder, Pinot Noir)	-
Blauer Portugieser	-
Blauer Wildbacher	0.50
Blau Främkisch	0.41
Cabernet Frank	-
Cabernet Sauvignon	0.39
Merlot	-
St. Laurent	-
Zweigelt (Blauer Zweigelt, Rotburger)	**4.40**
Other varieties of red grapes	0.06

According to Statistik Österreich, Wien 2000.

The Pannonian proximity offers space to the prosperity of the red wine, the largest surface being occupied by the Zweigelt blau (Table 3). It is important to mention that the quality wines obtained in these areas are internationally recognized.

Wine from this “wine growing country” has succeeded due to the fact that wine growers have kept its quality through consequent struggle, in order to obtain a remarkable fame at national

and international presentations, at competitions and assessments.

Conclusions

Vineyards represent the element outlining the agrarian cultural landscape of this region.

In this area, the wine growers have tried very hard and will always try to preserve their land as a typical wine country, through quality wine products, to promote them by advertising and to commercialize them.

The quality vineyards, prospering in these abrupt environment, mark out the image of the regional cultural landscape, giving its distinctive character.

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