

STRUCTURAL AXES AND POLES WITHIN THE BUCHAREST INFLUENCE AREA

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Abstract: La zone d'influence de Bucarest est un espace caractérisé par des activités complexes. La dynamique de ce système territorial est dépendent de l'importance des axes structurales et des principaux pôles intra et interzonales. Ces pôles et axes structurales se sont reconfigurés et les plus importantes mutations sont enregistrées par la délocalisation de certains pôles situées dans l'intérieur de la capitale dans sa zone d'influence. Ces pôles structurales se peuvent transformer en pôles de croissance et contribuer dans le développement équilibré du système territorial, qui est la zone d'influence de Bucarest.

Key words: structural pole, structural axis, territorial system, growth pole

Introduction

The dynamic of a territorial system in general and specifically the influence area of Bucharest in particular is closely related to the importance of the main travelling axes and the main intra and inter-spatial poles. The latter ones have reconfigured after 1989 moving their centre of gravity from one place to another. The most relevant change is the relocation of a series of poles from the capital towards its area of influence. We refer to certain production or sales poles or in some cases business centres. For example the concentration of business centres in the northern part of the city has lead to a gravity centre taking shape in that part of the city with sufficient spatial reserves for the development of the service sector.

The analysis of the intra and inter spatial development poles must be corroborated with the poles from the outskirts areas that are present in the entire national urban system, but the present study will only analyze the structural axes and the poles that developed on those axes within the influence area of Bucharest.

A structural axis represents the lineament capable of attracting services, productive units and residential areas; if we extrapolate in tourism terms it would be those lineaments of objectives or multiple tourism objectives capable to generate and maintain tourism flows. This lineament can be either a hydrographical artery or a series of heavily circulated roads that have the role of structuring a built in area.

Also, the structural pole represents a group of activities usually tertiary ones that have a significant impact on the general configuration of the territorial flows.

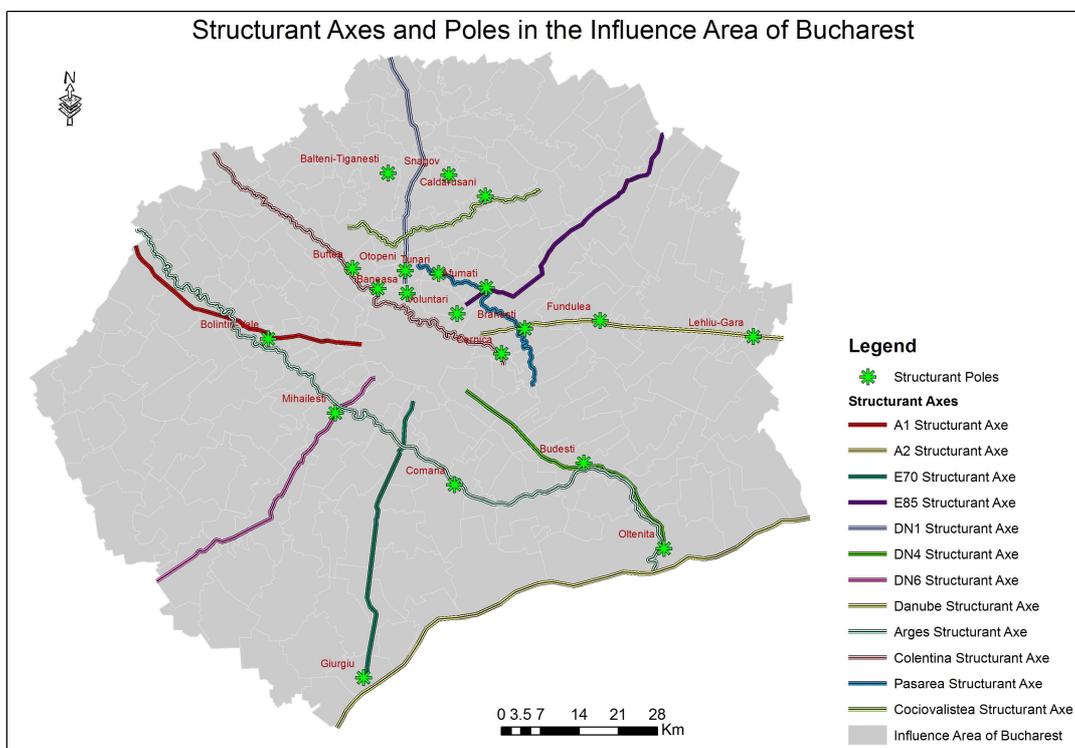
The analysis made regarding the structural axes from the influence area of Bucharest points out the existence of 11 major structural axes that have a decisive role on its present configuration but also in its future development. A twelve axis should be added to the presented 11 namely the new Bucharest-Braşov (A3) highway. A series of necessary construction and renewal works or endowment with new service spaces or utilities and a series of enlargements would result in a fluidization of the traffic which would transform

them into regular trumps for sustaining the durable development of the entire influence area of the capital.

1. Characteristics of the main structural axes and poles from the Bucharest influence area

In the Bucharest influence area the structural axes are represented by the communication network especially roads and mainly the two highways A1

(Bucharest-Pitești), on the sector Bucharest – Corbii Mari and A2 (or the “Sun” Highway Bucharest-Constanța), on the sector Bucharest – Lehliu-Gară and other 8 structural axes represented by European or national roads that connect the capital city to the other cities. The network is radial and all roads cross the belt line of the capital city, and respect the general direction of the cardinal and inter-cardinal points. (Fig. 1).



1. The DN1 structural axis

From a geographical point of view the DN1 structural axis represents the most important one as it is close to its peak performance point as far as its structural capacity and potential goes.

The importance of this axis is given by its transit function as it facilitates Bucharest` relations with the north-western part of the country. Traffic jams form very often due to the fact that this axis connects the two airports Henri Coandă from

Otopeni with Aurel Vlaicu – Băneasa, as well as with the tourism area Valea Prahovei,

The transit function which it has fulfilled during all this time, has left its mark upon the physical dimensions of this axis, in 2005 the northern sector of the capital was modernized with three lanes on each circulating tracks, two new intersections at the Henri Coandă airport and a bridge at Otopeni. The initial transit function has diminished lately especially after 1989 when this axis has become an

attractive element for locating production activities, sales or services units, increasing the pressure made upon this area.

The most important functions fulfilled by this axis is that of structuring the area of influence of Bucharest from the northern part of the city channelling and spreading the flows according to an radial pattern and facilitating the links with the main tourism areas: Băneasa, Snagov and Bălteni-Țigănești.

The structural role of the territory included in the area of influence also results from the fact that this axis represented the developing area for the main service centres. Thus, along this axis the main structural poles are:

The structural pole Băneasa – situated at the northern border of the capital city in the urban-rural interface between it and the adjacent space this pole is represented by the reservoir with a surface of 40ha on Colentina Valley which is an important place for leisure and recreation especially in the weekends for most of the capital's inhabitants. The lake disposes of facilities for practicing nautical sports and a high capacity swimming place. This structural pole is also represented by the 50ha forest made out of oak (*Quercus robur*), common hornbeam (*Carpinus betulus*); lime tree (*Tilia tomentosa*), tatar maple (*Acer tataricum*) and black locust (*Robinia pseudoacacia*). The forest represents a small part of the once famous Codrii Vlăsiei and in the XIX century it was property of the ruler Gh. Bibescu. In 1912 the Bucharest Mayoralty decided to set up a recreation park with walking alleys and a Romanian style restaurant following the plans of the architect Octav Doinescu. Later on, the recreation base was enlarged by building a new restaurant, a camping and a ZOO.

The Tunari shooting polygon where numerous national and international shooting competitions took place is situated in the NE part of the forest.

The Otopeni structural pole – situated in the northern part of the city on the Colentina – Pasărea interfluve with a population of 9962 at 1.07.2005. Due to its geographical position close to the capital and the fact that the international airport is placed on its administrative territory this pole has known a constant economic, social and cultural development. In the last couple of years (decade) the city has made a spectacular economic development due to investments made by large national and international companies like: BMW, Peugeot, METRO, Flamingo Computers, Romstal, Lukoil, Karl Heintz Dietrich, Erste-BCR, Alpha Bank, Shell, Rompetrol, Ion Țiriac Air, BRD-Group Société Générale, NHR Agropartners, Mc Donald's, etc. Otopeni thus becomes very attractive to investors and offers multiple business opportunities fact that contributes to its economic-social development.

The structural pole Snagov – is in fact the homonymous lake a fluvial bank having a lengthened shape that has obstructed the Snagov river mouth. The lake's surface has 575 ha, it is 16.5km long and has a maximum depth of 9m and a volume of water of 17.3m³. The lake is important for recreation activities due to its rich piscicultural fauna: waller, carp, bream pike, perch etc., and also due to the presence of a series of aquatic flora elements like waterwheel plant (*Aldrovanda vesicular*), broadleaf arrowhead, (*Sagittaria latifolia*), white lotus (*Nymphaea alba*) and the indian lotus (*Nelumbo nucifera*). On the island in the middle of the lake there is the famous Snagov Monastery.

The Snagov forest, a mixed foliage forest, is also part of this structural pole situated on the bank of the lake and is also part of the former Codrii Vlăsiei with an area of 1727ha. The forest is made out of: english oak (*Quercus robur*), common hornbeam (*Carpinus betulus*), mixed with common ash (*Fraxinus excelsior*), silver lime (*Tilia tomentosa*), tatar maple (*Acer tataricum*) and common maple (*Acer campestre*). The western part of the 100 ha wide forest is declared natural reservation and protects species of oriental beech (*Fagus orientalis*), and common beech (*Fagus sylvatica*). Starting from June 2nd 1952 the lake along with the forest was declared to be a Complex Natural Reservation.

The pole has an important role in structuring the tourism activities from the influence area of the capital and it includes an important sports and nautical centre dedicated to national and international competitions and represents an important tourism destination for Bucharest's inhabitants.

The Bălteni-Țigănești structural pole – is made out of the Țigănești Lake, the Țigănești monastery and the Ciolpani forest. A dendrologic reservation of 50ha and a Research Station are located here. The monastery is situated on the south-western bank of the river; it is a nun monastery and is certificated since 1780 as a monks' hermitage with a wooden monastery.

2. The E85 (E60) structural axis

The above mentioned structural axis includes the Voluntari – Urziceni network. With a joint route until Urziceni, this axis is made out of two European roads and has more of a transit function and an increased importance due to the fact that is

connects the north-east part of the country with the east, from Urziceni it splits in two separate routes E85 travelling towards the north and E60 towards the east. The other functions namely the space structuring and service location ones are more obvious towards the capital near Afumați, the rest of the axis maintains its main transportation role.

A structural pole on this axis is Voluntari situated on the north-eastern part of the city on the Colentin-Pasărea interfluve. Voluntari has known a constant development gaining the city status in April 2005 and has a good chance of achieving the rank of municipal town very soon. From a territorial point of view Voluntari includes two relatively distinct areas namely Voluntari itself and the Pipera neighbourhood but they are unitary from an administrative one. The latter is situated 7km away from the capital and is nationally renowned for the real estate “boom” that it has experienced lately. From an architectural point of view the neighbourhood has had a tendency towards modernization several levels house predominate in the overall scenery.

The evolution of Voluntari is closely related to the evolution of the capital but the city itself has a separate history. Its name is said to have come from the Transylvanian soldiers that in the First World War from 1916 – 1918 crossed the Carpathians in order to participated in the liberating fight against the Austrian domination. Voluntari appeared due to this area being named “The Voluntarism Fortress” as a result of the 1921 law that specified land donations to the ex-serviced men, crippled and war widows. During the Second War World the locality was extended by a division of smaller lots named “Olanița Parcelling” located very close to the first one towards Afumați. Until 1936 the city's districts

belonged to Colentina village which is today included in the administration of District II in Bucharest. The village Pipera is 200 years old, it appeared on the location of the estates that belonged to Ion Boombă and Mircea Climescu, and were comprised of 20 houses; its name is supposed to come from a series of paprika plantations in that area.

Voluntari was formed at the crossroads of a series of commercial roads and continually developed in the same manner and kept its old vocation until very recently. Thus, prestigious commercial centres are located here: METRO, Praktiker, Orient, ProConfort. Many investors found Voluntari ideal for their business and still do, this fact being confirmed by the multitude of economic units located here.

Still, the most spectacular progress was made by the neighbourhood Pipera, the famous real estate explosion took place here with numerous residential buildings being set up but also by moving the business centre of gravity from the centre of Bucharest to here. The investors' attention was drawn towards Pipera after the lands from the central and the semi-central areas of Bucharest were exhausted and their prices exploded in the last periods of times.

Another structural pole on this communication axis is Afumați a tourism centre on the Pasărea Valley with resources such as the ruins of the fortress of Radu from Afumați, the "Adormirea Maicii Domnului" church build by the High Steward Constantin Cantacuzino in 1696, the Constantin Cantacuzino estate (in a highly degraded state today) or the monument built by Ion Iordănescu devoted to the heroes fallen in the First World War.

3. The DN3 and A2 structural axes

From a geographical point of view this axis spreads out towards the east and ends in front of Lehliu-Gară. Although they were analyzed together because they have similar routes only the first one is very well developed due to the fact that the recently build A2 hasn't managed to impose itself as a true structural axis for the influence area of Bucharest. It still doesn't have the necessary facilities and cannot assure the service spaces that will on the long term attract a series of production and sales activities that will result in it gaining the stature of structural axis of the influence area of Bucharest. But it will most probably win the status of structural axis in the near future that will take over or complete the structural axis status of DN3. The transport function for establishing the connection with the Black Sea seaside is obvious in the case of the two axes. The DN3 is often recommended as a detour route especially in the summer when the traffic to and from the seaside is very crowded.

Two structural poles without any major importance are situated along these two axes:

The Fundulea structural pole is situated at the confluence of Belciugatele River with Mostișteea. This is represented today as an important road junction and among the economic activities that revitalized the city's economy we can name: the metallic confections industry, chemical products industry and the food industry.

The locality has an agricultural profile because a bovine farm and numerous hectares are cultivated with cereals, sun flower, sugar beet, leguminous plants activate within its boundaries. The locality can also be considered a research pole as a research institute for cereals and technical plants specialized in creating new species of genetically modified

plants with higher productions rates and resistant to diseases; a station for farming medical plants and an institute for research and production of sugar beet are located here.

The Lehliu-Gară structural pole is an important road junction situated in Bărăgan Plain 65km away from the capital city. The industrial function of this pole is dominated by knitwear factories, spare parts for the iron and steel works industry, rubber fittings for fluvial ships and food industry though vegetable processing.

4. The DN4 structural axis

This axis ensures the connection with the southern part of the country namely with Oltenița that could connect with several cities from Europe or even Asia if it will be continued by water. The southern area of the country, traditionally poorer and less developed emphasises the exclusive transport function of this axis. In spite of all that lately there was observed a reorientation of the business or real estate flows and of development policies towards the south of the capital and a slight economic revitalization.

The structural poles situated on this axis are the city of Budești and the municipal town Oltenița.

Budești in Călărași County is situated in Mostiștei Bărăgan at the confluence of Dâmbovița and Argeș. Budești is a hydro-technical junction on the Bucharest-Danube Channel (whose construction began in 1984 and stopped after the events that took place in 1989). This channel had to be equipped with a spillway of dam, two docking ports for ship transit between the two sectors, a bridge that would have allowed crossing from one shore to the other and a micro hydroelectric power plant. The town's economy developed around some small factories

that process superior wood, plastics and rubber and produces a series of technical goods. In Budești there is also a brick factory, an electronic components one and a sport articles confection factory.

Oltenița – situated in the south-western part of Călărași County on the left bank of the Danube at its confluence with Argeș the locality is documentary mentioned in a record of the ruler Neagoe Basarab from April 13th 1515 followed by a mentioning on the first map of Wallachia drawn up by the High Steward Constantin Cantacuzino.

Oltenița gain an important social but especially economic role due to its geographical position as a port Danube port, bridgehead and grain storage location, custom point, quarantine point and border.

Oltenița was a main defensive point for the capital city during the independence war proven by the inspection made King Carol I in the front line.

Later on, the locality developed economically mainly through units like shipyards (constructions and repairing of motor ships, passengers fluvial ships, tug boats, barges, dredging machines), steel or crude iron moulded parts factories, furniture industry, confections, concrete prefab parts, light industry etc.

Due to the fact that it is situated on the southern border of the country and being an important point on the line between the Occident and the Orient a control point was set up here when crossing the border Oltenița – Tutrakan (Bulgaria). This point shortens with 150km the existing road routes.

5. The E70 (E85) structural axis

It unfolds on a north – south direction and connects Bucharest with Giurgiu. It is one of the most important transport axis and connects

Bucharest with the south of the country and the most frequent route is through Giurgiu considering that the railway connection between the capital and Giurgiu is made by a detour route through Videle. Giurgiu is one of the most important Danube ports and with the road bridge that connects it with Russe in Bulgaria it establishes links with other European cities and many more. This axis follows the common routes of the European roads E70 and E85, which continues onwards on Bulgarian territory.

The one and only important structural pole on this axis is Giurgiu the residential town of the homonymous County, an important fluvial port and communication junction (the first railway ever built in Romania was between Bucharest and Giurgiu and the station was opened to traffic in October 1st 1869) and an important custom point with Bulgaria. At the 2002 census the town had a number of 73 586 inhabitants. It forms a Euroregion Together with Russe its Bulgarian counterpart. The oldest proofs of a settlement existing within the town's boundaries dates from Mesolithic (the 10 – 7 millennium B.C.). Following additional archaeological diggings it was certified that the Giurgiu area was intensely populated in the Dacian period (1st century A.D.) and nearby, in the current location of Popești village the capital city of King Burebista was set. The roman emperor Justinian which ruled between 483 and 565 A.D. build Theodorapolis on this location. In the XIXth century it was believed that the town was founded by Genoa residents and its name came from the Protector Saint of Genoa - San Georgio. Nowadays specialized researching made this hypothesis invalid. In 1420 the town Giurgiu was conquered by the Ottoman Empire and transformed into a rayah. The Empire wished to control the traffic on the

Danube. Giurgiu had an important role in the Turkish - Romanian wars because it was a genuine fortress. In 1659 the town was burned to the ground and in 1829 its walls and fortifications were completely destroyed the only defence available was the castle located on Slobozia island which connects with the mainland though a bridge. From an economic point of view Giurgiu is today an important agricultural, industrial, commercial centre with an important transport function. Within the industrial function the food and the textile industry are predominate ones to which we can add production of electrical and thermic energy, oil and natural gas extraction and processing.

In 1996 the Autonomous Administration "Free Zone" Giurgiu was established, located in the south-east of the town with an area of 163.54ha which in June 1st 2004 was transformed into a joint-stock company. This endeavour created new development possibilities for all economic activities. The facilities given by this area attracted the investors that carry on here production, sale and service activities.

6. The DN6 structural axis

The DN6 structural axis is represented by the national road number 6 on the Bucharest – Drăgășani-Vlașca sector and is one of the most important communication axis that favours connections with the west and south-western parts of the country through Alexandria and then through Roșiorii de Vede having mostly a transit function.

The most important structural pole situated on this axis is the town Mihăilești (Giurgiu County) with 7 500 inhabitants situated in Găvanu-Burdea Plain across the Argeș Valley. Mihăilești is an important road junction. A silk weaving mill

functions here as well a farm for growing large horned cattle for milk in collaboration with a Dutch company. A hydro technical junction in its final stages of completion is also located here with a spillway dam and two docking ports for ships transiting from one sector of navigation to another on the Bucharest-Danube Channel (the works were stopped after December 1989). The reservoir on Argeş River was built in the '80 and has a surface of 1013ha and a volume of water of 76.3 million m³. From the right side of the road towards Bucharest another route unfolds and leads to Popeşti where supposedly Argedava the Getae – Dacian fortification of King Burebista from the 2nd century B.C was located. In April 1989 the locality was give town status and has within its administrative subordination three villages (Drăgănescu, Novaci and Popeşti).

7. The A1 structural axis

This structural axis is in fact the Bucharest – Piteşti highway specifically the Bucharest – Corbii Mari sector and represents the second most important axis from the influence area of Bucharest following the structural axis DN1. Its importance derives from its transit function facilitating relations between Bucharest and almost half of the country's cities.

The transit function that it has had over times left its mark on the physical dimension of this axis. The most important function it has is a transport one. It facilitates connections between the capital city and western Wallachia namely Oltenia.

Another important role this axis has is that of structuring the area from the close vicinity of the capital where most of the commercial centres are located (Carrefour, METRO, Praktiker, etc).

This distribution of service centres corroborated with the intense traffic generated by the function it has at a local, national and international level creates frequent traffic jams due to interruptions in the traffic flows as a result of a sudden change from a 2 lanes highway without any obstacles like traffic lights and pedestrian crossings to numerous such obstacles once entering Bucharest.

8. The Pasărea structural axis

It's a natural structural axis along the valley of Pasărea hydrographical artery that always constituted a population localization factor and a development factor for the inhabiting process. The Pasărea brook springs from Buciumeni Forest (130m altitude) near Mogoşoaia and continues its path near Otopeni international airport and flows into Dâmboviţa near Fundeni. Having 10-15m steep banks with precipitations measuring even 20m the brook forms a reservoir close to the monastery that bears the same name and afterwards crosses the most widespread forest --from the vicinity of the capital (Cernica – Pasărea Forest). Over the course of history its function was to offer the inhabitants of this area a natural protection and defensive background against the numerous trials they underwent (migrations and conquest invasions of the surrounding empires) and also a valuable food supply and a source for raw material. Today its main function is tourism. The main structural poles of this axis are: Tunari, Afumaţi, Pustnicu, Pasărea and Brăneşti. They have the role of structuring the surrounding area from a tourism point of view, becoming true resources with tourism characteristics although some of them are not being used to their true potential.

9. The Colentina structural axis

It represents a natural axis that unfolds following Colentina Valley. Starting with 1935 numerous reservoirs were built along this river and they nowadays constitute major tourist and recreation areas of the capital and its surroundings emphasising its conspicuous tourist function. The important structural poles situated on this axis are:

The Buftea structural pole is the reservoir with a surface of 307ha and a maximum depth of 6m. The 9m high dam ensures the necessary water supply, irrigation supply and has a recreation role for the city's inhabitants. The Bucharest Cinematic Production Centre built during 1951 - 1956 and the Media Pro Studios are located on the banks of the lake. Other important components of the structural pole are the Știrbei Palace and Chapel and the Râioasa Forest (58ha) located close to the city and declared forest reservation made out of species of english oak (*Quercus robur*), common hornbeam (*Carpinus betulus*), norway maple (*Acer platanoides*), european white elm, (*Ulmus laevis*) and black locust (*Robinia pseudoacacia*), the latter was introduced by man. The name of Râioasa comes from the nodulose aspect of the trees their bark being very often covered by moss and lichens.

The Mogoșoaia structural pole constitutes the reservoir bearing the same name with an area of 103ha. The Mogoșoaia Forest (20ha) is located on one side of the lake and has recreation facilities like a swimming place (built in 1948) and an unloading dock on the other side

This structural pole stretches around the Brancovean architectural ensemble formed by a chapel (1688) and the manor (1702) the latter one being used more as a summer residence. The old kitchen or *cuhnia* is still preserved within the manor.

The Cernica structural pole is actually the homonymous lake with an area of 360ha and a maximum depth of 3m. The lake was developed for recreation purposes and is detrimental to most of the capital's inhabitants. On the banks of the lake the Cernica forest is situated with different species of bitter, can, hornbeam, lime, elm, and presents cynegetic interest for its fauna like wild boars, deer, hares, pheasants. On the north-eastern bank of the lake there is the Cernica monk monastery built by the magistrate Cernica Știrbei in 1608 during the reign of Radu Șerban. The tourism importance is given by the monastery itself but also by the cemetery it holds where writers like Gala Galaction, Ioan Lupaș, Ion Halippa, the painter Ion Țuculescu or the metropolitan bishop Nifon are buried.

10. The Argeș structural axis

It represents the longest structural axis from the influence area of Bucharest located along Argeș River starting from Costeștii de Vale (Dâmbovița County) and ending in its flow into the Danube close to Oltenița. The following structural poles are situated along it:

Bolintin-Vale – town in Giurgiu County situated on the left side of Argeș. Its tourist importance is given by the 17th century manor that belonged to the nobleman Băleanu; the 1832 “Adormirea Maicii Domnului” church; the statue and funeral monument of Dimitri Bolintineanu sculpted by Carol Storck.

Mihăilești – structural pole situated at the crossroad with the DN6 structural axis.

Comana – structural pole that concentrates the tourism activities generated by the meadow lake bearing the same name situated in Burnazu Plain and by the Comana Monastery built by Vlad Țepeș

in the 15th century certified by the archaeological discoveries that rendered evident the foundations of the first wooden buildings. The monastic ensemble was restored between 1970 and 1977.

11. The Cociovaliștea structural axis

It is a relatively short structural axis that intersects with the DN1 structural axis and centres on the brook Cociovaliștea a right side affluent of Ialomița. The single and most important structural pole on this axis is the Căldărușani tourism centre made out of the lake, monastery, and the forest bearing the same name. The Căldărușani Lake is a fluvial ford with an area of 2.2km² and a maximum depth of 4m. On the north bank of the lake there is the Căldărușani Monastery a monk's settlement built by Matei Basarab. The Căldărușani mixed foliage forest is made out of species of english oak (*Quercus robur*), blended with turkey oak (*Quercus cerris*), grey oak (*Quercus pedunculiflora*), hungarian oak (*Quercus frainetto*), tatarian maple (*Acer tataricum*) and represents a small part of Codrii Vlăsiei. The Căldărușani forest reservation was set up here in 1954 and has an overall coverage of 125ha.

12. The Danube structural axis

It's a structural axis with a huge potential that within the area of influence of Bucharest unfolds between Giurgiu in the south-west and Oltenița in the south-east. Danube is the second longest river in Europe after Volga and springs from the Black Forest Mountains in Germany as the smaller two rivers (Brigach and Breg) situated under the Kandel Peak (1241 m) that join in Donaueschingen, in the courtyard of Fürstenberg Castle.

In the Giurgiu-Oltenița sector the river has more of a transport function (Danube is the 7th Pan-European Transport Corridor) the tourist function is mostly non-existent but with great development possibilities, the opportunities could be offered by the two above mentioned ports. In these two allocations docking ports could be set up for both internal and external passenger's ships that continue their journey towards the Danube Delta. If the works for the Danube – Bucharest channel, built in proportion of 70% by 1989 when the construction works stopped, were to be continued the tourist function could be developed in addition to the transport function and routes for visiting Bucharest's objectives can be made. At this moment in time procedures from the National Company "Administration of Navigable Channels" to take over the administrative work for the Argeș and Dâmbovița rivers from the Ministry of Environment are underway. This channel is projected to have a total length of 103km out of which 68% on the Argeș and the rest on Dâmbovița. The feasibility studies and projects are expected to be finished by the end of 2009. Once the works will be done Bucharest will the fifth capital city on the Danube.

2. Characteristics of the structural poles and axes

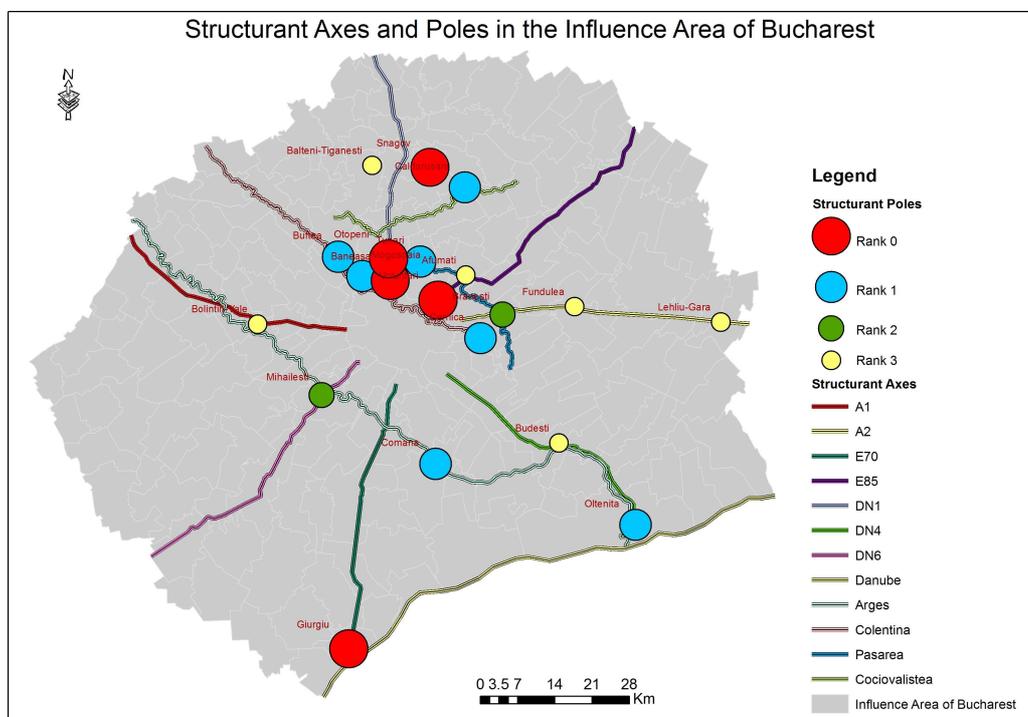
The capacity of the structural axes but especially of the structural poles to configure a territory and to coagulate certain activities must be appreciated following a series of criteria that include:

- Length of the structural axis,
- The prevalence of a certain function (transport, tourist, commercial, service, etc.)

- The demographic size of the structural poles,
- The dominant urban function(s) of the structural poles,
- Type of structural poles (sales poles, production poles, advertising poles etc.)

As for the structural poles from the influence area of Bucharest along the structural axes there were identified a series of such poles that can achieve the major objective of a complete and

balanced development of this area. Within the analyzed area based on the development level achieved until now and their capacity to polarize rural areas that are presently less developed there were identified 4 categories of structural poles that have hierarchical ranks varying from 0 to 3. The rank 0 structural poles are the most developed ones with a high polarizing capacity and the less developed ones are the rank 3 poles.



Thus in fig. 2 out of the 20 structural poles registered along the major structural axes from the influence area of Bucharest we can identify 5 rank 0 structural poles (Băneasa, Otopeni, Snagov, Voluntari and Giurgiu) that were considered to be the most developed ones except for the latter one. The first two structural poles (Băneasa and Otopeni) have an increased level of development mainly due to the presence of the two airports but also due to their proximity to the capital. The biggest and most

important business centres from the entire influence area are practically concentrated along this communication axis. As for the structural pole Snagov it developed due to its tourist function shaped over the years but also due to the facilities it has specific for organizing national or international events (conferences, seminars, congresses, symposiums etc.). Voluntari started to develop gradually due to the status it gained in 2004 and to its proximity to the capital and also due to the

spectacular developments from Pipera neighbourhood. We also have to mention the large number of firms (3 052 in 2007) that activated and have their headquarters within the administrative boundaries of this new town. Although it doesn't have the level of development of the prior mentioned poles, Giurgiu was included in this category due to its potential and future development perspectives being a Danube port if it develops its tourism and especially transport services.

There were identified 7 rank 1 structural poles in the influence area of Bucharest and by analyzing their functions one can observe that tourism is prevailing. The respective poles are Buftea, Mogoșoaia, Cernica, Comana Căldărușani, Tunari and Oltenița although in the case of the last 2 centres the tourism function is less developed. These poles together with the rest could better structure the influence area of the capital by investing in their tourism function, by developing accommodation units, public food units, but especially recreation units as it is a known fact that both the capital and its influence area's resources are limited from that point of view.

The rank 2 structural poles are fewer: we can only mention Brănești and Mihăilești which represent the most developed localities and with the greatest polarizing power from the structural axes they are situated on.

The last category is made out of rank 3 structural poles and within the influence area 6 such poles were identified (Bălteni-Tigănești, Afumați, Fundulea, Lehliu-Gară, Budești and Bolintin-Vale). These localities have a certain development and structural potential over the influence area of the capital.

For the influence area of Bucharest, depending on the above mentioned criteria, the 12 structural

axes can either be natural (hydrographical arteries) or atrophic (transport axes). DN1 axis is the most important structural axis considering its structuring capacity. Its future structural potential is slightly limited because the axis has reached its peak development stage on one side and due to the acute lack of space it was confronted with lately on the other. The fact that this structural axis became the most important one from the influence area of the capital resulted in the business gravity centre as well as the investments moving towards the north area of Bucharest.

Another structural axis with a high territorial structuring capacity is the A1 highway that apart from the transport function that it had and will continue have in the future it also proved to be able to gather numerous deposit and sales units that start presenting at the city's exit. Numerous presentation stands of European or world renown firms are located here as well as sales units (hyper and supermarkets).

The other structural axes which are mostly national roads have exclusively transport function and facilitate the capital's and other cities' connections with the larger urban centres from the influence area or even from its vicinity.

The two major structural axes (the A2 structural axis and the Danube structural axis) have a very important role in structuring the influence area of Bucharest and of achieving balanced development diffusion within it. The two axes have an immense development potential especially if we refer to the Danube axis. This axis can complementary develop a transport function (for both persons and goods) as well as an important tourism function by setting up tourism ports between Giurgiu and Oltenița. As far as the A2 axis goes for the eastern side of Bucharest

it is not important from the space structuring point of view due to lack of even the most basic service spaces. Once the respective services will be set up the structuring potential of this axis will increase and surpass certain barriers that could be imposed by the reduced density of connective roads between the highway and the other type of routes that interconnect with the highway.

Conclusions

At the level of the influence area the 12 structural axes and 20 poles identified can represent

polarizing elements capable of attracting a series of important internal and external investments. For all these components to form a functional system the local authorities have an overwhelming role with their capacity of attracting this kind of investments. At a certain point, at a mid-territorial scale (the influence area of Bucharest) these structural axes and poles can transform into real growth poles at that level. These can be responsible for diffusing the development flows within the influence area in a balanced pattern.

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