

Summary of the doctoral thesis

**“ Spatial organization of the school education system at  
the local level in Iași ”**

## **CHAPTER I- INTRODUCTION**

### **I.1. Interests in addressing the theme and space question**

The school environment of Iași includes a distributed network of schools in the Iași area.

## **CHAPTER II- SPATIAL BOUNDARIES**

### **II.1.Functioning legal framework**

Functioning of schools according to the norms of the same general framework regulations (Education Law No.84/1995 and ROFUIP) induces a uniform school space.

### **II.2.The distribution and evolution of the current network of education units**

The current configuration of schools cumulated evolutionary, different reasons for their position, adapted to the different time evolution of the city. The spatial and chronological location of the schools is closely linked to the evolution of the city.

### **II.3.Spaces and constituencies**

Until 1993 Iași area school organization at primary and secondary school functioned strictly on school districts. The unrequiring compliance of the constituencies after 1993, develops a subjective behavior of the segment represented by the school population. It is materializing the selective criterion by the preference for some school which are sought for the level of benefits of the level education system.

### **II.5. The actual distribution of the schools from the necessities to reality**

The current image of schools cumulate viable logic operation today or logic operation tributary of bygone “needs/consumed”.

### **II.5.1. Level of schools in urban area**

Spatial image school units relates to a configuration that includes schools appeared relatively new neighborhoods, older, central northern perimeter of the city.

### **II.5.2 High schools in urban area**

The location is also two high schools: the case of units that have an evolution-long to the old settlement areas and when school groups with industrial, sandwiched in the Bularga-From Sadat, whose graduates in times gone served old industrial platform Iași.

### **II.6. Development and disparities**

The functioning of schools is closely linked to the evolution of demand (the growth in the number of students). By comparing the number of pupils enrolled in the school year 2001/2002 with that of the pupils enrolled in the school year 2009-2010 result a decrease in their number by about 30%.

## **CHAPTER III-STRUCTURE AND FUNCTIONIN PREUNIVERSITY EDUCATION IN IASI**

Functionality and features of each unit derived from location specialization (learning cycle), potential (generated by the student population size)and of course, the ability to trigger flows in two-dimensional plane (horizontal-vertical and local physical space within the branch network hierarchy).

### **III.1 Issues referencing the primary-secondary education positions in the education space in Iasi**

Strict definition of primary, secondary and high school and their positioning in urban area highlights the complex typological reality:shaped units only secondary school units operating both primary and secondary levels or operating units gymnasium with the secondary.

#### **III.1.1 Eloquence of the student in the ranking of schools with primary and secondary cycle**

Educational potential that characterizes a school and its ability polarization can be deduced,without neglecting the role of other indicators, the

size of the student population in the school trained. According processed, the average number of students per school is 356 students. Although prevalent as the number of schools having fewer than this average mark (24 schools), 58% of primary-secondary studentcycles learning in the 18 schools over the average effective.

### **III.1.2 Functional and relational determination between secondary school and the school**

Relationship with the school gymnasium tracked down the system, by further studies at higher levels dresses look a junction with reciprocal effects.

Phenomenon candidate allocation by media hierarchy created involuntarily, while a ranking of high school units, accounting for their levels of average admission somewhat repeatable annual. Generalized to an ordering, descending in the form: national colleges and high theoretical economic profile trade school groups, colleges and school groups with industrial. In 2006-2010 from the high school gymnasium to transcend educational vertical space in Iasi echelons of the school population ranged from 1.935 students in 2007 and 2.131 students in 2009. Physical space materializes in the form of multidirectional flows forming a network with points of origin in schools with secondary schools and endpoints in schools secondary cycle.

### **III.2 Integration of upper secondary education space Iasi**

Offer each secondary unit becomes sustainable when interest-capitalization reached equilibrium. Attraction-in the eighth grade graduates of that goes to high school and capitalization-folding the labor market needs. Spatial distribution of secondary cycle units overlaps 52% secondary cycle distribution units with secondary cycle ,18 units in 34 revived and in network units with secondary cycle.

#### **III.2.2 Hierarchy in attractive area**

Highlighting the attractiveness of the units with high school highlights two facets of the notion of attractiveness. An attractive derived from analysis of flows by unit size and attractiveness competition derived from a limited number of places. In their profile, built evolutionary, each unit shows what shapes the personality features between other units but the degree of generalization aspects can transform a unit exponent category.

Overview of the functionality secondary cycle units, look at them with a structure that the selectivity criteria.

## CHAPTER IV- REALITY AND EDUCATIONAL MODELING SPACE IASI

### IV.1. Interpretation on school population

The rationale of this interpretation is based on spatial positioning of the three subpopulations school: primary, secondary and high school level, the aim is to show that on different levels of cycle, centers / areas of maximum intensity have different positioning in urban areas. Closely related with unite locations determine displacements between levels and space travel.

Broad representation of primary level in schools located in the western and southern takes on the appearance of a circular arc space overlapped neighborhoods Păcurari - Dacia - Alexandru cel Bun - Nicolina - CUG – Frumoasa. Schools in this area comprising about 3200 primary cycle students. From this arc branch a belt surrounding space urban center in the south and east represented of secondary schools "St. Barsanescu" - "T. Maiorescu" - "O. Cazimir" - "B.P. Hasdeu" (from west to east). In secondary level, the school population distribution map in this category recorded spatial configuration changes compared to primary. Urban central area is crossed by a transverse axis consists of units that introduce or supplement a number of classes in grades V for secondary school. From north to south (Copou-Podu Ros) the intensity axis representation in the city is composed of: School of Computer Science "G. Moisil" "National College" C. Negruzzi "National College" M. Eminescu "National College, High School" "V. Alecsandri" "National College" E. Racovita "High School" D. Cantemir ". It focuses around 3,100 students from secondary cycle in which about 2,200 students, or 73% of secondary school pupils of units on the axis are attracted from schools of the city.

School population distribution units high school confirms building space "axis" shaped secondary level as a result of specialization locations on both levels of education, with extension to the north-west to the outskirts Copou district and south-east the area of intersection of the neighborhoods Bucium Bularga.

Annually, this "axis" has a capacity of "absorption" over 4000 students in grades IX, while the gymnasium cycle Iasi he transferred annually about half of this capacity (2,127 students in the school year 2008/2009 and 2,077 students in the school year 2010/2011).

#### **IV.2.Belt "General elite schools"**

A phenomenon represent a particularity in Iasi education network is configurated a "belt" currently consists of four elementary schools with grades I-VIII surrounding the central core areas, shifting towards neighborhood schools of Iasi. It's School "Stefan Barsanescu" located in west central urban core to limit the neighborhoods Păcurari and Canta, the schools close in location but with different polarizations, "Titu Maiorescu" and "Otilia Cazimir" in neighborhoods Cantemir-Podu Ros and school "Bogdan Petriceicu Hasdeu" located in the eastern part of the Tatarasi district.

On the one hand they represent "split" between the center and periphery Education Area Iasi, on the other hand represent "crossing space" to high schools reputation.

#### **IV.3. The concept of "attraction area" applied in schools from Iasi**

For schools network Iasi propose probabilistic gravity model of Huff, this finding in every place a probability of attraction inside each area of influence. Outlining attractive areas in the school network using probabilistic model Huff gravity is the result of overlapping of three different levels of attractiveness areas: primary and secondary. Secondary level is approached in two ways: the specific primary schools, secondary general in tandem assuming a continuation of studies in the area of origin and national colleges , in which high school gymnasium is attached cycle space resulting in many cases a move to another place than their own.

Attractive areas obtained for the high school level of spatially present the most complex and most interpretable situation.

Comparing models of location of centres of attractivity and their relation to nearby space as a space of polarization confirm just partly initial thesis of study according to which "the intensity of mobility flows school to a school decreases with increasing distances traveled by subjects to that unit."

### **CHAPTER V-APPROACHES BEHAVIORAL PROFILE OF SCHOOL POPULATION**

Between the network of schools and school population operates a mutual conditioning. In profiling a school the school population give measures attending the school. Based on school population operating units develop strategies, or expanding their educational cycles restrict their structure, tuition

plans or profiles and specializations, or expanding their educational cycles restrict their structure, school plans or profiles and specializations.

Purposes of applying questionnaires followed a profile of students in these schools, identify factors that appeal to schools, determinations or barriers for students.

### **V.1 Social issues that characterize families of those interviewed**

Data collected on the three questions outlined in the workforce segregation analysis. Stands as follows:

- type subjects from families with both parents employed, mostly graduates of higher education and the prevailing one child in the family.
- type subjects from families that increase the share of one employed in the family, parents are mostly high school graduates and have two or three children in the family.
- type subjects from families where parents share is high on uncertain job: abroad, rural, retired. These respondents have a high percentage of parents with secondary education and number of children in the family increased by three and over.

### **V.2 .Features of the area covered**

Overlapping three maps obtained from the analysis of *home position*, *long-term way*, *way away*, among subjects are three types of behavior as a result of adaptation to the school crossing area polarizers:

- type interviewees who lives in the neighborhood near the school, and they go on foot and movement takes less than 30 minutes. Is specific general neighborhood schools.
- type interviewees living in another neighborhood, the distance using the means of transportation and traveling time is between 30 and 60 minutes. Is specific to high school.
- type interviewees residing in another location, using the distance and means of transport specific extra-urban transport network, when traveling over 60 minutes

Appear mixed types found in all units:

- subjects residing in another town but within less than 30 minutes traveling time

- subjects residing in other districts, used car "family" when traveling under 30 minutes.

### **V.3. Influence the level of attractiveness**

On this level of questions sought information he seeks to obtain an explanation for the choice of schools by subject

For all schools the questionnaire was applied, subjects mentioned their presence in that school enrollment in first grade at a rate exceeding 90%.

May be an indication of compliance with school districts.

The motivation of school choice for secondary units played an important role admission to 9<sup>th</sup> grade.

Establishing a behavioral profile of the school population in relation to units of the school network is subject to dynamic variables in the system alometrică behavior modification is subject to ongoing adjustments

## **CONCLUSIONS**

The school space in Iasi outlines an image of a competitive space. Particularities of each unit derived from location, specialization (in cycles), potential (generated by the student population size) and the ability to trigger flows in two-dimensional planes (horizontal-vertical and local physical space within the branch network hierarchy).

For the period studied (2005-2010) some aspects are highlighted:

- School districts theoretical basis to ensure network functionality education, especially at primary level.
- Parallelism with schools that draw their students from nearby locations is currently proven for schools. The allocation phenomenon candidate for admission to 9-th grade after unwittingly created media hierarchy, while a ranking of secondary schools, accounting for their levels of average annual admission somewhat repeatable.
- Spatial positioning of the three subpopulations education: primary, secondary and high school level shows that levels of cycle centers / areas of maximum intensity in urban areas have different positioning. Closely related sites displacement between levels and units of space travel.



- The array of "General elite schools" are a feature in Iasi education network, currently composed of four schools with grades I-VIII surrounding the central core areas, shifting towards local, neighborhood schools of Iasi.

The comparison of the localization centers and their relation to nearby space as a space of partial polarization thesis confirms initial study that "the intensity of mobility flows school by a school decreases with increasing distances traveled by subjects to the unit".

- The study shows a differentiated picture of schools of Iasi, the schools affected by the decline in the number of students is already in the process of readjustment while high schools, colleges and school groups are still in an upward trend in the number of students coming every year, but the declining trend is starting to show up here as well.

- In the studied interval, Iasi's education is affected by three special events: social, fewer students due to demographic decline installed after 1990, the abolition of vocational schools (schools of arts and crafts - 2009/2010) which operated in the schools industrial specialization and whose term not exceeding two years would provide the running for these units and the economic since 2008 to install a crisis that will profoundly affect the educational system and especially trough capping and lowering remuneration wage employees and the perceived effects of the Ordinance no. 34/2009 to block vacancies in the public sector.

- Given the economic and social changes occurring in the period following 1990, as well as changes in the legal framework itself of the system of education, adaptation follows two vectors: refocusing profiles of some units and capacity resizing.

