

Urban territorial dynamics and socio-economic changes in Craiova city

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Abstract

The city as a form of spatial organization had different typologies along the time which have been shown in various models of urban organization. The complex functions of the city which are based on the analysis of its functional areas imprints a specific model and a specificity of the local potential that can be capitalized in various ways.

The economic and social phenomena that occur in the city such as industrialization, tertiarization, deindustrialization and functional reorganization of spaces, population dynamics, the share of its involvement in different economic sectors, influence very clearly the physiognomy of the city.

The urban dynamics reveals that the city is constantly facing a number of problems and has a close connectivity with the rural and urban areas nearby.

This study aims to make a diagnosis analysis of Craiova urban space revealing the urban dynamics and systemic analysis and also the socio-economic aspects presented through the quantitative processing of statistical data (between 1965 and 2012) on population dynamics, its employment by sector of economy and the functional profile of the city.

The determination of the urban organizational model and the morpho-functional zoning of Craiova will reveal the spatial characteristics which are reflected in the social and economic activities undertaken in the city.

Keywords: *urban territorial dynamics, economic aspects, social aspects, Craiova, functional area, spatial organization*

Rezumat. Dinamica teritorial-urbană și schimbările socio-economice în municipiul Craiova

Orașul ca formă de organizare spațială a cunoscut diferite tipologii de-a lungul timpului ce au fost redată în diferitele modele de organizare urbană. Funcțiile complexe ale orașului care au la bază analiza zonelor sale funcționale imprimă un anumit model și o specificitate a potențialului local ce poate fi valorificat în diferite modalități.

Fenomenele de natură economică și socială care au loc la nivelul orașului precum industrializarea, tertiarizarea, dezindustrializarea și reconversia funcțională a unor spații, dar și dinamica populației, ponderea angrenării sale în diferite sectoare de activitate economică, lasă amprente clare asupra fizionomiei orașului.

Dinamica urbană relevă faptul că orașul se confruntă în permanență cu o serie de probleme și se află în strânsă conectivitate cu spațiile rurale și urbane din apropiere.

Studiul de față are ca principal obiectiv realizarea unei analize de tip diagnoză a spațiului urban al municipiului Craiova vizând dinamica urbană și analiza sistemică cât și aspectele socio-economice prezentate prin prelucrarea cantitativă a datelor statistice despre dinamica populației, angrenarea acesteia pe sectoare de activitate cât și profilul funcțional al orașului în perioada 1965-2012.

Determinarea modelului de organizare urbană și zonarea morfo-funcțională a orașului Craiova vor releva caracteristici spațiale care se vor reflecta și în activitățile sociale și economice întreprinse în municipiu.

Cuvinte-cheie: *dinamică teritorial-urbană, aspecte economice, aspecte sociale, Craiova, zonă funcțională, organizare spațială*

Introduction

The city is a place that has a complex functionality which is based on the utility of its areas that imprint a quality of life and a place specificity, but it is also based on the architectural aesthetics which determines a local lifestyle and a potential that can be capitalized.

Given the competition between cities in recent years, any urban space benefits from natural or anthropic advantages (local resources, skilled labour force, presence of universities, attractiveness and quality of life), i.e. the presence of infrastructure and services, the possibility of training, the conservation and construction of new units, which confers it a certain status and influences the urban dynamics.

Thus the city exists between two entities, between those who creates and transforms it- the public actors and those who use it- its residents, and

it has to respond to certain needs and adapt continuously.

The forms of urban organization had a various typology along the time depending on the space of development as follows: in America there are mentioned the cities that had developed suddenly and early (Chabot, 1957), and the development of suburbs; in Europe there are noted the emergence of new cities and the development of the working class neighborhoods, residential areas, that were increasing and became a true global phenomenon. The industrialization was considered the major extension period of the urban phenomenon that has attracted the rural population to different urban areas and agglomerations.

The city is the urban settlement, the administrative entity with specific non-agricultural functions that imprint a particular specialization to the urban space (the city has various functions), with a heterogeneous population, which is defined

by segregation and diversity. The urban space helps in the formation of an economic system that is based on production, consumption and trade, the city itself can become a product that can be sold through marketing and branding.

For some authors (Neacșu, 2010, p. 27) it is necessary to understand the city dimensions of representation which are formed of the intrinsic reality (geographical aspect), the functionality of the city (the system) and the perception of it (the image).

In terms of urban dynamics, of the system functionality, the city is perceived like a system, so "the city is a thermodynamic and informational, semi-open system towards the other systems, located at various distances, existing many exchange relations of mass, energy and information between them" (Ianoș, 1987, p.28).

Thus the urban dynamics shows that the city is a community that faces a complex typology of issues such as: social segregation, pollution, technical and urban facilities, being in a closed relation with the superior cities and rural settlements located in its proximity.

The economic activities influence the urban space imprinting a certain profile of economic development that is closely correlated with the historical periods and social phenomena.

The industry will attract people from rural proximity to the urban space and will cause spatial physiognomic transformations such as the development of industrial sites within cities and the working class neighbourhoods in their vicinity. The post-industrial economy was based on the services sector that has become the dominant activity in many countries and has diverted the increasingly fewer investments in factories, to other sectors.

Thus the cities have redeveloped and regenerated their economies, the landscapes and images had to face the deindustrialization phase (Hall, 1998, p. 81), pointing out the new phenomena in the urban areas such as the reconversion of industrial spaces into tertiary spaces of trade.

Data and methods

The main objective of the paper is to make a diagnosis study of the urban space in terms of the urban dynamics/systemic analysis and of the social and economic aspects of the city that occurred during 1965-2012.

The paper has two parts, one part will deal with the urban dynamics and the second one will present the economic and social issues observed in Craiova, the methodology being as follows:

- The historical maps and materials about Craiova were analyzed in order to determine its territorial evolution over time and GUP (General Urban Plan)

(2003) was processed to determine the functional areas of the city.

- The socio-economic statistical data about Craiova (1960-2012), obtained from Dolj Regional Department of Statistics were processed quantitatively to observe the social and economical trends of the city.

The data were subsequently processed in relevant graphic materials (nomogram, diagrams, etc.) and cartographic materials.

Study area

Craiova city represents the polarizing centre of Oltenia South-West Development Region, located in a geographic area at the contact between two major relief units – Getic Piedmont and Oltenia Plain, representing a favourable natural and socio-economic space for shaping a 1st rank urban settlement with multiple functions (fig. 1).

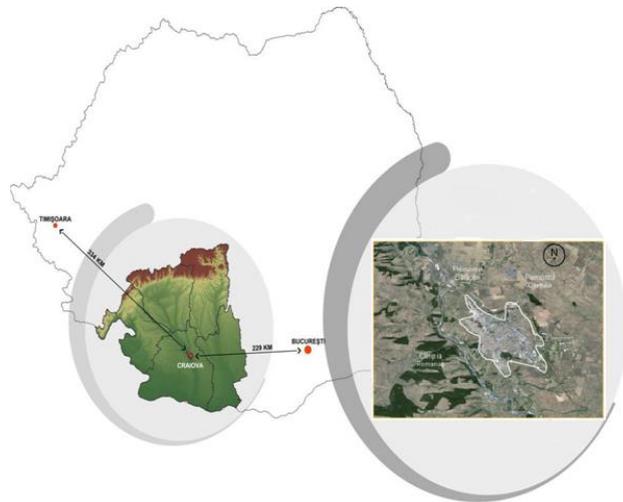


Figure 1: The geographical location of Craiova city at the national, regional and county level

It is located at latitude 44°19'30" north and longitude 23° 50'45" east and has an area of 32 km², with a maximum extension on the north-south direction (9.0-9.4 km) and a minimum one on the east-west direction (4.8 - 5.2 km) (IUDP-Integrated Urban Development Plan, 2010).

The morphogenesis of the territory where Craiova's neighbourhoods are located is related to the Jiu River, the city being situated at an altitude ranging between 70-75 m (the floodplain level) and 140-150 m (the 5th terrace level of Jiu). It was formed in a corridor of the Jiu river which is flanked on the west by the Bălăcița Piedmont (a subdivision of the Getic Piedmont) and on the east by the hills belonging to the Olteț Piedmont (IUDP, 2010).

Located in Wallachia, the old historic province between the Danube River, Olt and Meridional Carpathians, at the intersection of the hills of the Getic Piedmont and large plains of Oltenia, Craiova

had a favourable geographical position because of the confluence of mountain roads and plains and of an intense movement for transhumance or exchanges of products, and because of the contact between the Danube and the capital city.

The capitalization of the space through various agricultural, industrial and tertiary activities is reflected in the functional profile of the city.

In the law 351/2001 on the National Territory Development Plan - Section IV – The Network of localities, Craiova is considered a county seat, a first rank city (together with eight other large urban centers), taking into account the number of inhabitants (314, 920) on 1 January 1999.

Thus within the settlement system of Oltenia, Craiova city has an important role because it is a major "consumer" of goods and workforce, which determines direct consequences on the space such as the maintenance of the active workforce and its increase over time, the increase of the built areas and of the buildings density and the structuring of the urban space. Thus the city is regarded "as a consumption, trading and production system" (Douglas, 1981 as cited in Levine, 1987).

Results and discussions

Urban territorial dynamics

Craiova is currently considered in terms of functional hierarchy a "nodal center" or "growth pole" - which is represented by large cities with a sphere of influence ranging from 60 to 100 km; thus the studied city is an old centre characterized by trade, administrative (county seat), industrial, cultural and political functions with a strong influence in its suburban area.

Craiova represents currently an urban territorial system with a specific content, structure and spatial organization, being influenced along the time by the demographic, social and economic factors, since "the territorial reality is more complex and it is in a permanent spatial and qualitative restructuring process" (Ianoș, 2000, p.21).

For a better understanding of the present phenomena of Craiova urban dynamics, it is necessary to know the historical development of this urban space which will help to outline other urban aspects of the city.

Several books on the history of Craiova were analyzed (Firu, 1963, Georgescu et. al, 1977, Cetățeanu et al., 1979, Deaconu, 1981, Pospai, 1982) which present the periods of the city development and their characteristics and also cartographic materials were analyzed: Tabula Peutingeriana (Pospai, 1982), the city plan of 1780 (Buce-Răduț, 2008), the Austrian map of 1790, the city plan of 1854, the map of 18-19th centuries (Deaconu, 1981), the city plan of 1888 (Deaconu,

1981), the city plan of 1925 (Deaconu, 1981). Each period will influence the territory of the city and the historical events will emphasize its importance in the regional context.

The town dates from ancient times, the first attestation of this name was on July 1, 1475. Craiova appears as a city in 1582.

The historical periods mark its territory and influence the urban dynamics as follows (fig. 2):

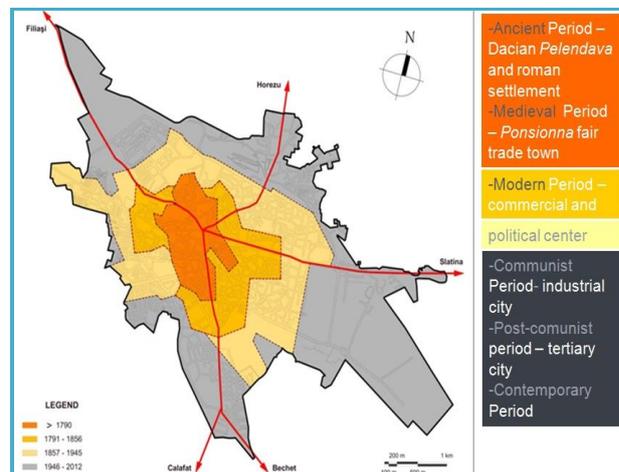


Figure 2: Temporal sequences in the urban space organization of Craiova city

- The ancient period corresponds to the Dacian settlement called Pelendava and then to the Roman settlement.
- In the medieval period the settlement is called Ponsionna and it is a fair town (until 1790).
- During the modern period (1790- 1945) it becomes a commercial and political centre.
- After 1945 the city becomes an industrial centre during the communist period and then it evolves in a tertiary centre during the post-communism period.

In a diagnostic analysis of urban space there are identified the needs, the malfunctions of the city and the territorial- functional zoning is an important step in this analysis.

The urban zoning requires the delimitation of functional areas (mono-functional or poly-functional) within the urban space by dividing the urban territory in relation to certain economic, social aspects and aims to regulate the entire land use within the built-up area.

The urban space organization model is a complex one determined by the historical stages of evolution that occurred along the time, and also by the evolution of post-industrial urban area, obviously influenced by the natural setting, which was favourable for the horizontal expansion of the city. To highlight this zoning, the GUP (General Urban Plan) 2003 of Craiova was processed and the following functional areas were individualized (fig. 3):

- the "central business district" (represents only 5% of the built-up area and it has multiple functions: political, administrative, social, cultural and even financial and trading functions, being at the same time a residential area and nodal point of the main axis of communication within the city);

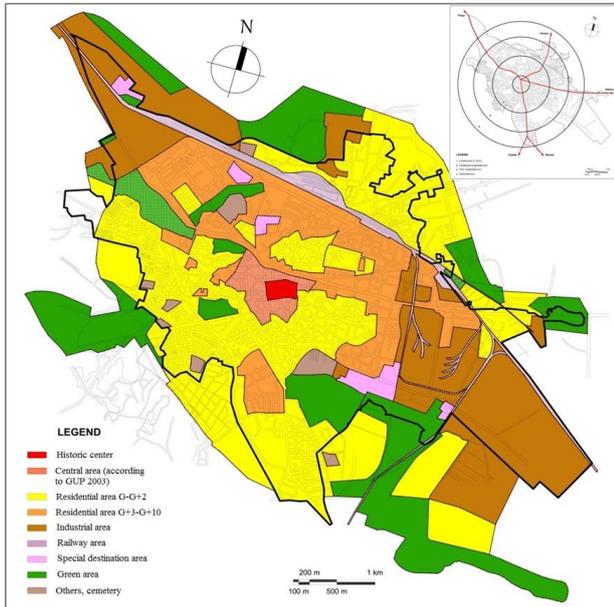


Figure 3: Morpho-functional areas of Craiova and the concentric areas model of its urban structure

-the residential area (occupies a large part of the urban space and includes residential buildings, socio-cultural facilities, various homogeneous commercial spaces; its subunits are the neighborhoods, thus being individualized several residential areas such as the central "hovels" appeared after the degradation of old neighborhoods, neighborhoods of blocks with different heights, the new "hovels" from the periphery and the new residential neighborhoods in the suburban area);

- the industrial area (located in the outskirts of the city, with a length of 22-25 km, forming an industrial belt; the industrial units are grouped in the eastern, northern and north-western and southern platforms and in the peri-urban areas-Işalnița, Podari and Cârcea);

- the green area (public parks and gardens);
- the railway and warehouses area.

In terms of urban structural models, Craiova has a concentric structure according to the EW Burgess model (Ianoş, 1987), formed of a central core of the city which is extended and completed by new radial-concentric or tentacular expansions.

The dynamism of the urban system of Craiova shows a tentacle expansion in its peri-urban area by including new settlements in the administrative territory of the city.

Craiova urban dynamics highlights several stages of evolution marked by certain distortions produced by the intervention of external factors.

Taking into consideration the city's components (territory, population, economy, etc.) between which synergistic relationships are created, the dynamics of the space aims to find a balance between the development potential and the capitalization capacity, although it is sometimes disrupted by the intervention of external factors that create distortions.

The ratio between the development potential and the capitalization capacity of the city (Ianoş, 2004) has a different evolution on the time scale, recording certain processes in the urban areas that are grouped into the following periods (Fig. 4):

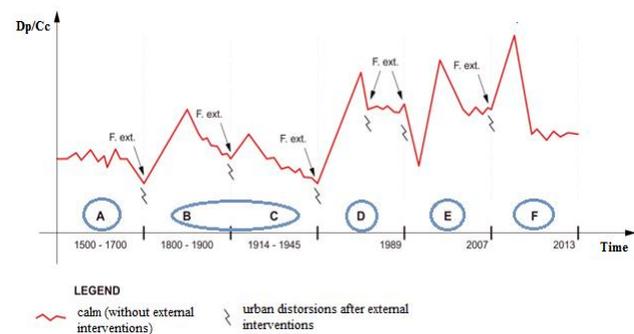


Figure 4: Urban dynamics of Craiova throughout city evolution

A. pre-urban stage (1500-1700), stability of the urban system, random organization with distortions: a low human intervention and dominance of agricultural activity;

B/C. pre-industrial stage (1800-1945), commercial and political centre - distortions: The World Wars will cease the economic life of the town;

D. great communist industrialization (1945-1989) - overlaps the Fordism period- distortions: systematization by establishing industrial areas in the east, north and north-west of the city and also working class neighbourhoods

E. post-industrial stage (1990-2007) - distortions: deindustrialization, tertiarization, and suburbanization through urban sprawl and construction of villa neighbourhoods and ANL dwellings;

F. integrated urban development stage (2007-2013) - distortions: a functional reconversion of industrial spaces to commercial spaces.

Thus in the context of horizontal territorial expansion due to the relief, initially there will be a chaotic development of the city, uncontrolled before the world wars and in the interwar period; during the socialist period there will be implemented the systematization, i.e. a centralized management of the space, building the socialist neighborhoods and industrial sites, which modifies the space

configuration but also determines the arrival of a flow of persons attracted by the new opportunities created in the city.

Socio-economic changes

The dynamics changes of urban space will also influence the socio-economic level. Thus there will be analyzed the demographic characteristics of the city, the development of the urban economy sectors and also the nomogram of the functional profile of the city during 1965-2011, through the quantitative processing of the statistical data.

Craiova becomes over the analyzed period (1965-2011) a pole of attraction for the nearby population, the demographic evolution having an upward trend until the 1990s, when the population migrates to cities, period coinciding with the development of communism. The main moments in the city's population dynamics are shown in Fig. 5, as follows:

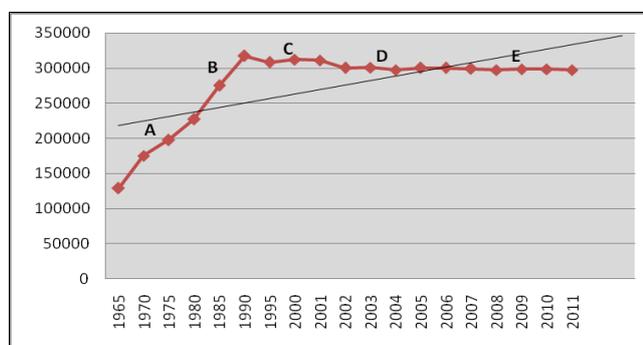


Figure 5: The evolution of the inhabitants' number in Craiova (1965-2011)

A. 1965 - 1985 period: in the mid- 20th century Craiova recorded a population boom once with the economic development of the city in the communist era, when the factories and plants are built in the outskirts of the town;

B. 1985-1990 period: the city recorded the maximum value of the population in 1990 (317, 368 inhabitants), due to the trend of the communist policy that wanted an increasing number of population;

C. 1990-2001 period: it starts the demographic decline due to the worsening living conditions, generated at country level due to the collapse of the socialist economic base, practically it started since the transition to capitalism, to the market economy; amid a low birth rate in this post-socialist period and the industrial restructuring and privatization, the city's population will decline to 311,326 inhabitants in 2001, after a long continuous increase for several centuries;

D. 2001-2005 period: the population will decrease to approx. 300,200 inhabitants in 2005; Craiova is no longer a great pole of attraction for the persons in the rural proximity; this period is marked

by a process of tertiarization, but also by de-industrialization, factors that explain this sustained decrease;

E. 2005-2011 period: corresponds to a demographic decline, the number of population is maintained at a value of approx. 300,000 inhabitants, with the lowest value of 297,510 recorded at the 2011 census. The economic transition influenced the population dynamics amid a decreasing birth rate, following the national trend, with a deficit of establishing the domicile in Craiova city due to the movement of domicile from Craiova with values above 5,000. There is an exodus to other cities or abroad in search of jobs since the economic crisis in the 2009-2011 period will strongly affect the labor market of the city.

The decline of the population number is also influenced by the dynamics of domicile movements to and from the city (fig. 6), the situation preceding the 2000s revealing an increase of establishing domicile/residence in the city with a maximum value of 6,642 reached in 1980 and after the 2000s there is a deficit, because there are recorded more resident departures than establishments, with a maximum of departures in 2007 of approx. 5,000.

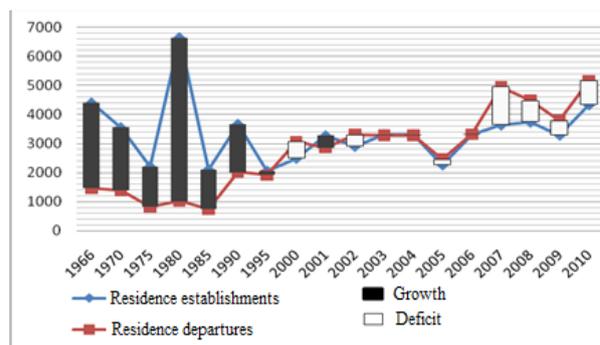


Figure 6: The dynamics of residence/domicile establishments and departures in Craiova (1965-2010)

By the 1990s there is an increase in the residence establishments, after this period a large deficit is recorded.

Amid the demographic changes in the city, the economic analysis, the functions of the urban areas, the active population share involved in various economic sectors (primary sector-agriculture, forestry, and fisheries; secondary sector-industry and construction; tertiary sector-trade, transport, services) was also analyzed.

The number of employees by economic sectors in the 1970-2010 period (Fig. 7) reveals the high percentage of persons involved in the industrial activities until 2003, when the industrial restructuring will lead to de-industrialization processes on some platforms with major changes in the urban landscape, pointing out an emphasized

decline in the share of industrial employees in the total employees number of the city.

In 1988 it recorded maximum values of approx. 61,864 employees and 68,405 employees in 1990, highlighting the city's industrial profile during the socialist period; after the '90 it is recorded a decline affecting above half of the sector, the employees in the industry being of approx. 23,500 in 2010, due to the mechanization in some cases the workforce is not necessary anymore because it is substituted by the machines.

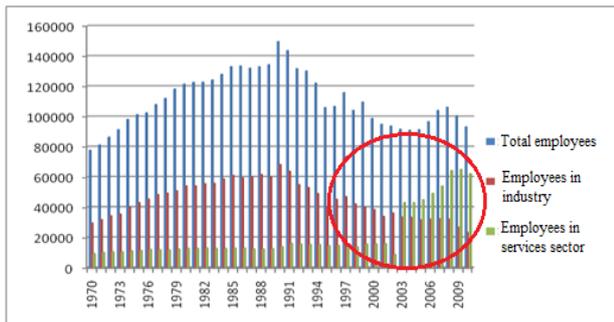


Figure 7: The evolution of employees in the industry and in the services sector in Craiova (1970-2010)

After the year 2000 the employees began to work in the tertiary sector, recording 20,000 employees in the commercial sector, and 6,000 in construction, due to the housing boom in Craiova, by constructing various office buildings or residential complexes, private houses, and with 6,000 people working in the transport sector.

So the industrial sector is dominant until the year 2000, then the services sector becomes dominant.

The functional profile nomogram of the city (Fig. 8) reveals its historic heritage, and the diminishing of some functions (the agricultural one), which were replaced by new ones (the industrial one), which was functional for a long period of time. The commercial function persisted along the time due to the previous trade status of the city. The industrial function, well represented in the communist period, was tried to be maintained during the economic restructuring and transition to the market economy. The services function increased and it is more emphasized after the year 1995.

Thus in the communist period the industrial function is dominant due to the construction of industrial sites that are still operating currently after some restructuring and reconversion processes; so that in the transition period after the 1990s, the function of the city is mixed, beginning also a tertiarization process; after the 2000s the dominant function is the tertiary one, of services. The city passes through different stages of economic development in close connection with historical events and characteristics, obviously not excluding

also the national context, extrapolating from the macro-scale model (country) to the micro-scale (city), namely the shift from a centralized economy to a capitalist economy.

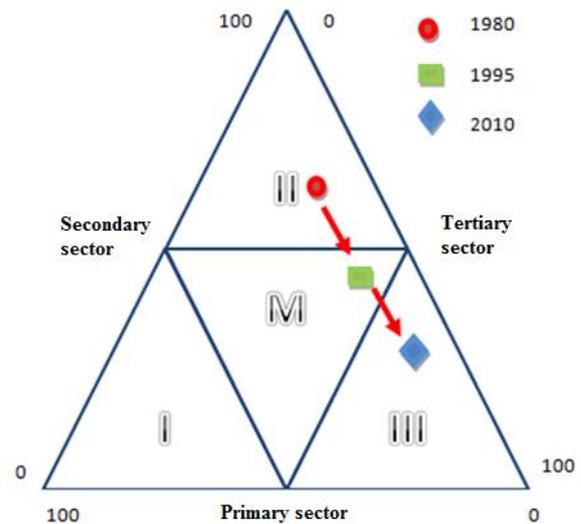


Figure 8: The functional profile nomogram of Craiova in 1980 (the communist period), 1995 (the transition period) and 2010 (current period)

Conclusion

The location of cities is not random, they are located in places that maximize their ability to generate a social surplus and to integrate social and economic activities within the rest of the society's activities (Berger, 1978).

With a population of approx. 300,000 inhabitants and a tertiary and industrial economic profile, Craiova emerges at the local level as a centre of concentration of substances, energy and information flows.

The spatial configuration of the city is the result of the constraints imposed by a number of components, which resulted in a diagnosis analysis that presented the urban space dynamics of Craiova and some economic and social aspects that can be summarized as follows: the geographical location offers a high functionality due to its location between hills and plains, the city being a "central place" with a polarizing role at the regional level and a nodal space that allows the extensive use of the built-up area; the functional areas are grouped in a radial-concentric development model; the industrial activities are developed due to the presence of industrial platforms in the outskirts of the city, there is a lack of business centres and adequate infrastructure to attract investors; many of the socialist enterprises recorded losses and were restructured or were abandoned (it led to brownfield sites occurrence); the declining in the population number of the city reflects the low birth rate

(national tendency) and also the fact that the workforce can no longer meet the current labor market requirements, thus massive layoffs occurred determining many residents departures from the city, thus requiring in some cases a professional reconversion for the revitalization of the labour market. The city tends to tertiarization although it has not proved to be extremely viable till now.

The city imprints certain economic and social effects on the geographical space through rapid pace of development and extension. In addition to the positive influences of cities, their current problems refers to a growing concentration of the population, residential neighbourhoods, urban services, and industrial and commercial units movement towards the periphery, determining effects such as overcrowding, reduction of green spaces, traffic and pollution.

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