THE PRESENT MORPHOSTRUCTURAL INDIVIDUALITY OF ARAD CITY

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Abstract. Resulted from the historical evolution, the present day urban morphostructure is relatively plain. In the middle of the urban space, there is a linear central core (Revoluţiei Boulevard), surrounded by the other districts, as urban cores, that gravitate around it: Aradu Nou, Subcetate, Sănnicolau Mic and Mureşel, South of Mureş, Centru, Drăgăşani, Pârneava, Gai, Bujac, Aurel Vlaicu, Grădişte, Micălaca, Poltura and Şega, North of Mureş. Because of their independent development, these districts have distinct features, both functionally and graphically, granting the urban system a polycentric character. This decentralization allows the functional decongestion of the central core. At the same time, there is a tendency of dissolving those above mentioned centres, generating a relatively unitary urban texture. The main role in coagulating and organizing the urban agglomeration belongs to the network of thoroughfares, radially built even in previous periods of time. The necessity for satisfying different functions determined the emergence of distinct types of urban morphology. Although these are quite different from district to district, and even within the same district from one area to another, however, the evolution stages of the urban agglomeration marked the existence of four main morphologic types. The specific physiognomy of Arad city is generated precisely by the relations between the four main morphostructural types.


Key words: morphostructure, urban space, population, Arad

Cuvinte cheie: morfostructură, spaţiu urban, populaţie, Arad
1. THE ECONOMIC, SOCIAL AND POLITICAL COMPLEX OF THE CITY AND ITS MARK UPON THE URBAN PHYSIOGNOMY

In a paragraph dedicated to the city, Daniel Payot makes a remarkable analogy between the complexity of the relations established within a city and a text “which has been woven out of a multitude of singular threads” and which still remains “legible, meaning understandable, allowing routes or segments of sense to be traced in it, so that, probably, no segment succeeds in defining the whole”. In this meaning, the city cannot be understood but as a complex whole, “for it is not a homogeneous unit susceptible to present itself in an absolute way from its origin and in its exhaustive significances and in the integrality of its history, more likely being the simultaneity in one place of all relative routes that take place in it”\(^1\).

The review of the economic, social and political facts that played an important part in the development of the city has an obvious relevance in catching the essential bounds between the physical and human space, in deciphering the trajectories that had been traced, at a certain moment, in the city’s evolution process, by a social or a political event. The economic, social and political complex that comes into being in a city also leaves its mark upon the urban physiognomy, generating different directions in the development of the city in certain situations.

For example, the commercial function of Arad, essential in the genesis of the city (due to its special placement at crossroads and to its status as a trade center) became secondary in the 19\(^{th}\) century, being replaced by the industrial function. In fact, the emergence of Arad’s industry is not based on the classical principles of location (near the exploitation centers of raw materials or in areas with qualified labour personnel), but, to a large extent, on that of political decision. The reason for this decision regards the economic interests of the Austrian Empire, compelled to modernize this area in order to have a profitable economy. For the engineering industry, which largely developed in Arad during the 19\(^{th}\) century, the raw materials were brought from a rather short distance (Reşiţa or Hunedoara), and the qualified personnel was enlisted from the German, Czech, Slovak or other colonists. But the industrial function of the city, which would grow all along the 20\(^{th}\) century, caused a certain type of representation regarding the status and the functional role of the city. During the socialist period, the industrial concentration in Arad city reached 83.3\% of all Arad County industry\(^2\). After 1989, this fact would affect the economic restructuring. However, regarding the urban space, this situation might prove to be positive in the future: the desolated industrial areas (some placed near the city centre) will turn into a supply of space to build. As a matter of fact, the existence of a well defined agricultural function and of certain important agricultural space in Arad represents another opportunity in the real estate politics and the future development of the city.

Arad’s condition as an important railway junction influenced, to an obvious extent, the way that the systematization projects of the city were conceived. There were recent proposals for moving the railway outside the city. The railway and the rail bridge towards Aradu Nou even became the reason for a recent disagreement between the Regional Railway Department of Timişoara and the city’s local council. While the rail bridge over the

\(^{1}\) Payot, D., Traces de villes, p. 37.
river Mureș was restored, the city’s authorities wanted it to be placed somewhere else and to move the railway from Aradu Nou (that crosses Micălaca district) outside the city. Eventually, financial reasons have been taken into consideration, and the bridge and the railway stayed on the same location. However, this was a good opportunity to bring back to life the ancient animosities towards Timișoara and the competition between the two urban centres. On the other hand, it is also true that many Western cities gave up this sort of highly expensive operations. In the end, the railway may have an arranging role in the structuring of the urban space.

In fact, in the history of Arad, there were many projects of rebuilding, remodeling or even moving the city. From the migration of the city from its ancient site near Glogovată (12th century) to Maria Teresa’s plans to move the city in “the plain of Zimand” and up to the 20th century plan to “build a new centre” on the basis of “the new type, socialist city”, all these projects make up the history of Arad’s urban “utopias”. It must be underlined that such utopian projects have had a certain impact upon the social organism.

The urban ambient, largely conceived on the basis of architecture models foreign to Romanians, the balanced weight of the two national groups (Romanians and Hungarians) within the city for a long period of time, Arad’s importance in the struggle for the national rise of Romanians, are elements that apparently have no link between them. However, sometimes, they determine certain types of social responses to a number of political signals related to the urban space of the city. In this meaning, a good example is the “issue” regarding the placement of the Statue of Liberty, commemorating the 13 Hungarian generals, executed at the end of the 1848-1849 Revolution, at Arad. It is in fact an initiative of the Hungarian community to restore the statue, which existed in Arad until 1925, in the middle of Avram Iancu Square. The number associated to the 13 generals, which corresponds (accidentally?) to the 13 provinces of “Saint Stephen’s Hungary” (Great Hungary), and the claim for the former location, which has a symbolic name for the Romanian community, were the main objections towards the initiative of the Hungarian community. In this context, the connotations of an identity nature associated to this fact, different for the two communities and related to the city’s symbols – always passed through the filter of collective imaginaries – have imposed a solution which we believe to be a proper one. The new monumental space called “The Reconciliation Park” in the Pompierilor Square, where one finds both the Statue of Liberty and its Romanian replica concerning the 1848 Revolution, stand all the chances to become the most representative monumental space of the city and an important identity mark of this urban space.

Regarding the same idea of symbols that have identity content and are representative for Arad urban space, one cannot overlook the issue of the limit that the river Mureș establishes (or not!) between the two historical regions: Banat and Crișana. The issue is important because the identity assumed by the inhabitants of a city may influence its evolution. Things in this matter cannot be irrevocably cleared up. As four districts of Arad are located to the South of the Mureș and ten to its North, it is difficult to assert that some are located in Banat, and the others in Crișana. One may rather conclude that Arad city lies

3 This centre, on the basis of architecture projects, had in the foreground a large square for people’s meetings and it was set to be placed on the site of the present historical centre (Th. O. Gheorghiu, 2002, p. 124).
in a transition or transience space between the two historical regions, where the river Mureș is the very axis which attracts an entire series of settlements located on its both banks⁴.


Resulted from the historical evolution, the present day urban morphostructure is relatively plain. In the middle of the urban space, there is a linear central core (Revoluției Boulevard), surrounded by the other districts, as urban cores, that gravitate around it: Aradu Nou, Subcetate, Sânnicolau Mic and Mureșel, South of Mureș, Centru, Drăgășani, Pârneava, Gai, Bujac, Aurel Vlaicu, Grădiște, Micălaca, Poltura and Şega, North of Mureș. Because of their independent development, these districts have distinct features, both functionally and graphically, granting the urban system a polycentric character. This decentralization allows the functional decongestion of the central core. At the same time, there is a tendency of dissolving those above mentioned centres, generating a relatively unitary urban texture. The main role in coagulating and organizing the urban agglomeration belongs to the network of thoroughfares, radially built even in previous periods of time (fig. 1).

The linear central core lies in the immediate neighborhood of Mureș loop. The main avenue of the central area (Revoluției Boulevard), oriented from North to South, concentrates the majority of the political, administrative and cultural institutions of the city. Further on, Drăgășani district, conceived mainly during the 18th and 19th centuries, having a chaotic street texture, represents the oldest part of the central area. The central avenue is limited to its North and South by two rectangular squares. Avram Iancu Square, remarkable for its architectural composition, makes up a passage link between the central avenue and Drăgășani district. The position of the Theatre contributes to the success of the urban composition of the square fronts. It takes part both in defining a side of the square and in setting up a beautiful end of perspective for Revoluției Boulevard. Podgoriei Square lies at the northern end of the central avenue. It is a point of convergence for the roads coming from Oradea, Deva and Nădlac, and is valued for the new Romanian Orthodox Cathedral, representing the other end of perspective for the central thoroughfare.

The necessity for satisfying different functions determined the emergence of distinct types of urban morphology. Although these are quite different from district to district, and even within the same district from one area to another, however, the evolution stages of the urban agglomeration marked the existence of four main morphologic types.

1) The type conceived in the 18th century and the first half of the 19th century is dominant in Drăgășani district. The features of this district are: relatively narrow streets without vegetation, buildings with one or two floors forming continuous street fronts. At the outskirts of the other historical districts, there still exist a number of buildings of ground floor type, showing the street a narrow front and having a rural aspect, dating from the same period of time.

2) The morphological type specific for the second half of the 19th century and the beginning of the 20th century, represented by multi-floor buildings forming continuous

⁴ R. Rusu, 2000, p. 120.
fronts in most of the cases, is to be found compactly in the central area of the city and scattered within all historical areas of the city.

3) The districts that mainly consist of houses and gardens, dating from the first half of the 20th century and especially from the inter-war period, are Şega, Poltura, Grădişte, Mureşel; the houses are sometimes placed in the middle of the courtyard and have no more than two floors. Towards the outskirts of the city, this morphological type often degenerates into a half-rural tissue aspect, including large plots containing quite isolated gardens and houses, lacking the public utilities corresponding to urban comfort standards.

4) The fourth morphological type is represented by the buildings specific for the communist period, consisting of high multi-level residential units, social and cultural buildings, production units built with industrialized technologies. These emerge in the form of large districts (Micălaca, Aurel Vlaicu etc.) or isolated within the historic urban texture (streets such as Banu Mărăcine, Ștefan cel Mare, areas like Faleza Sud-Alfa, Confeţii, the area near the railway station etc.).

The specific physiognomy of Arad city is generated precisely by the relations between the four main morphostructural types. A relation of opposition is specific especially in the case of adjoining the socialist blocks of flats with historical areas. Yet, the central area stayed relatively unitary from the point of view of its composition (although it consists of buildings made in many different architectural styles) and it might become a true architecture reserve of the 18th and 19th centuries. Large restoration projects are however demanded for the historical areas. Although they have already begun, aiming to some of the symbolic buildings of the city (the Administrative Palace, the Cultural Palace), the situation is far from being satisfactory, as for instance in Drăgăşani district. So much the better as the restoration practice recommends interventions upon entire areas, not just upon certain representative buildings from the point of view of architecture. A restoration from a city planner point of view would also be necessary, aiming at the adaptation of an urban tissue generated by obsolete functions to the present-day urban functions, capitalizing the distinct expressive qualities of these structures.

As the city develops and grows, it will become more and more necessary to treasure its historical heritage. The local government totally disregards such actions, as it has plans to demolish the oldest football stadium in Romania and the central market, both located in the city center or near it, and to replace them with modern supermarkets or hypermarkets. These initiatives are also against the will of most of the citizens, as recorded by all local newspapers, and will determine a long term loss as regarding the cultural, architectural and historical value of the city center. However, the local government seems not to worry and carries on with the plans in a rather questionable way. Mayor Falcă, the head of the group supporting these initiatives, has the control of the local council, which approves everything he dictates. From this point of view, he is the fourth in a never-ending list of Arad City mayors, who shows much more interest to its own businesses than the will and the welfare of the city’s citizens. His fate will probably be similar to that of the ones before him, who have never been voted again.

It must also be given prominence to the modernizing actions of different buildings, including blocks of flats, which may sometimes radically alter the architectural and graphical shape of a unit. It has also been remarked that, especially after 1990, there is an almost exclusive preference for the individual type of dwelling. The “villa” syndrome reached also the peripheral areas of Arad, and their architecture has no connection with the
The present morphostructural individuality of Arad City

traditional type of the city’s dwelling. Such numerous mutations, having the opportunity to materialize in a scattered way, may finally be able to challenge what we call the city’s personality.

Fig. 1 Arad city. Elements of the present morphostructure
Orașul Arad. Elemente ale morfostructurii actuale
Quarters (Cartiere): A-Gai, B-Bujac, C-Șega, D-Poltura, E-Pârneava, F-Centru, G-Dragașani, H-Mureșel, I-Aradu Nou, J-Subcetate, K-Micălaca, L-Grădiște

3. ISSUES CONCERNING THE ORGANIZATION OF URBAN SPACE

The build-up area of the city covers 4,618 ha. All the outlying districts, isolated from the central core, have been totally integrated in the urban area until 1950, when Aradu Nou and Sânnicolau Mic districts have been finally attached. Because different isolated territories were added throughout the centuries to the build-up area, one can notice, on the one hand, a large area where the urban tissue has an obvious continuity, comprising the city center and districts such as Dragașani, Pârneava, Grădiște, Șega, Poltura, and on the other hand, one may notice districts such as Bujac, Gai, Aradu Nou, Subcetate, Sânnicolau Mic, Micălaca, which have a certain degree of isolation from the central core.

It is obvious that a homogeneous and ordered urban structure provides an equal share of the services within the territory. It is thus a rational provision, covering the urban organism, from all points of view: urban transport, energy supply, sewage etc. Nevertheless, the multinuclear character of the city and the functional decentralization which developed
throughout history, are essential features as the degree of complexity of the urban functions is increasing.

The way that the present structure functions suggests an imperative completion of the current radially shaped thoroughfares, linking the peripheral districts with the central core, with other thoroughfares, connecting the peripheral districts with each other. These connecting thoroughfares should have either tangent or similar routes to several imaginary circles, having the fortress in their center. A first step has been made to this effect: the outer ring in the northern half of the city, linking Gai, Grădişte and Micălaca districts at their ends. However, this thoroughfare is meant to redirect the intense traffic from Deva and Oradea to Nădlac customs, out from the city center. The high traffic from Timişoara is still an issue, because it still crosses the city center as there is no shortcut ring built yet. The completion of the outer ring in the southern part of the city has a distinctive significance in increasing the city’s geometrical coherence and assuring a fluent connection with the neighbouring city of Timişoara. It is also true that the accomplishment of this ring would need higher financial resources, as it includes the building of a new bridge over Mureş. However, the benefits would be important, by favouring relevant economic flows towards Arad and ensuring a modern road infrastructure for the city.

In detail, the city’s tradition suggests the adoption of ordered units, having spatially defined composition axes, easy to see through, using large thoroughfares, bordered by green areas. The ends of perspective, the crossroads and the inflexion areas are marked by architecturally representative buildings. It is also recommended to rationally approach the placement of residential units in the neighbourhood of historical units. There are several achievements in this field, and a good example in this effect is the area of the railway station (Gării district). There one may see a junction between old and new realized by neutral buildings, which take over elements of the existing composition and ensure a graphical continuity with the present. However, in most of the cases, the integration by contrast, often annoying, neglects the sentimental load of the historically formed city. The alignment of buildings on streets, the precise construction of urban images, the homogeneity of the cornice, are compositional aspects that have nothing to do with the principles of open urban planning, related to green areas and dynamic images, specific to the new units built in the last four decades.

One of the major impediments in the coagulation of the urban agglomeration into a unitary system would be the railway cutting through the city from North to South, separating more than two thirds of the West from less than one third to the East. That is the reason why, even since the end of World War II, there have been projects proposing the removal of the railway and the railway station and their reconstruction eastwards, outside the city (T.O. Gheorghiu, 2002, p. 124). The main railway station of the city is not located on the shortest route from Deva to Timişoara via Arad. Because of this, most passenger trains on this route stop only in Aradu Nou railway station in order to avoid the time-expensive operations in Arad main railway station. Apart from this, the railway crosses residential units from Aradu Nou and especially Micălaca districts, producing a perceptible noise pollution. Unfortunately, the experience of several cities from the developed countries indicates that such removal operations of the railway outside the city are very costly and, for the moment, the local government cannot afford such expenses. The solution for the districts affected by noise would be the use of phonic curtains or screens, systems that proved their efficiency in many countries around the world.
The railway from eastern Arad may have a restrictive role, but it may also play a part in the future evolution of the city. The areas now used by the railway may well represent a supply of space in a future when the build-up area of the city will be more densely covered and inhabited.

Arad is a city having one of the lowest values of the population density in Romania. In 1974, it was even mentioned as “the most extended city of the country, apart from Bucharest”\(^5\), having a raw density of 5.2 inhabitants/ha. Several factors made their contribution to this situation: the relatively large uninhabited space from within the meander, the high number of half-rural districts added to the city in a relatively short time, the large agricultural area of the city (12,500 ha in 1970).

<table>
<thead>
<tr>
<th>The city</th>
<th>Density of population (inhab./ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baia Mare</td>
<td>5.91</td>
</tr>
<tr>
<td>Arad</td>
<td>6.48</td>
</tr>
<tr>
<td>Satu Mare</td>
<td>7.66</td>
</tr>
<tr>
<td>Cluj-Napoca</td>
<td>17.71</td>
</tr>
<tr>
<td>Timișoara</td>
<td>24.57</td>
</tr>
<tr>
<td>Constanța</td>
<td>24.86</td>
</tr>
<tr>
<td>Iași</td>
<td>34.17</td>
</tr>
<tr>
<td>Craiova</td>
<td>37.17</td>
</tr>
<tr>
<td>Ploiești</td>
<td>39.90</td>
</tr>
<tr>
<td>Bacău</td>
<td>40.64</td>
</tr>
<tr>
<td>Pitești</td>
<td>41.36</td>
</tr>
<tr>
<td>București</td>
<td>80.94</td>
</tr>
</tbody>
</table>

Source: www.insse.ro

In 2002, the population density increased (6.48 inhabitants/ha raw density and 37.4 inhabitants/ha net density, see table 1), but it still is one of the lowest among Romanian cities. By district (fig. 2), the distribution of the density is core-periphery type. The highest values of the population density (over 50 inhabitants/ha) are to be found in a shape of a ring surrounding the meander of the river Mureș. It should be noticed that the highest value of the population density (in Aurel Vlaicu district) lies somehow out from the above-mentioned area, which is due to the “block of flats” type of construction. The peripheral districts have extremely low values of the population density; they mainly consist of suburban types of individual dwellings, with a high weight of agricultural land between the houses.

\(^{5}\) V. Cucu, 1974, p. 283.
Tab. 2. Arad city. Repartition and density of population on districts (2005)

<table>
<thead>
<tr>
<th>Crt. No</th>
<th>Name of district</th>
<th>Population</th>
<th>Surface (ha)</th>
<th>Density of population (inhab./ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Centru</td>
<td>39,522</td>
<td>510</td>
<td>77,5</td>
</tr>
<tr>
<td>2.</td>
<td>Drăgășani</td>
<td>6,370</td>
<td>113</td>
<td>56,4</td>
</tr>
<tr>
<td>3.</td>
<td>Pârneava</td>
<td>21,022</td>
<td>383</td>
<td>54,9</td>
</tr>
<tr>
<td>4.</td>
<td>Aradu Nou</td>
<td>15,697</td>
<td>553</td>
<td>28,4</td>
</tr>
<tr>
<td>5.</td>
<td>Mureșel</td>
<td>1,336</td>
<td>230</td>
<td>5,8</td>
</tr>
<tr>
<td>6.</td>
<td>Sânnicolau Mic</td>
<td>3,805</td>
<td>275</td>
<td>13,8</td>
</tr>
<tr>
<td>7.</td>
<td>Aurel Vlaicu (Poltura)</td>
<td>37,769</td>
<td>231</td>
<td>163,5</td>
</tr>
<tr>
<td>8.</td>
<td>Șega – Cadaș</td>
<td>5,074</td>
<td>238</td>
<td>21,3</td>
</tr>
<tr>
<td>9.</td>
<td>Gai</td>
<td>4,129</td>
<td>444</td>
<td>9,3</td>
</tr>
<tr>
<td>10.</td>
<td>Bujac</td>
<td>8,202</td>
<td>205</td>
<td>40,0</td>
</tr>
<tr>
<td>11.</td>
<td>Grădiște</td>
<td>14,161</td>
<td>673</td>
<td>21,4</td>
</tr>
<tr>
<td>12.</td>
<td>Micălaca</td>
<td>33,229</td>
<td>653</td>
<td>50,9</td>
</tr>
<tr>
<td>13.</td>
<td>Subcelate</td>
<td>598</td>
<td>110</td>
<td>5,4</td>
</tr>
</tbody>
</table>

Source: The Police of Arad City

Fig. 2. Arad city. Density of population (2005)

1 – Under 25, 2 – 25-50, 3 – 50-75, 4 – 75-100, 5 – Over 100 (inhab./km²)
In order to mitigate this situation, the new residential units of Arad should organically integrate in the city’s structure. If possible, it would be desirable to maximally use first the available spaces of the built-up area, and new units be built only afterwards. The point is that the rural environment surrounding the city of Arad (including some urban peripheral districts) is confronting with depopulation and underdevelopment, while new residential promotions are wasting space, turning aside the building market and finally the entire city.

**FINAL REMARKS**

The current morphostructure of Arad city, resulted from its historical evolution, is relatively simple: a central core, around which the other districts gravitate as “urban subsystems”. Because of their independent development, these districts present distinctive peculiarities both functionally and architecturally, giving the urban system a multinuclear character. The specific physiognomy of Arad is generated exactly by the (sometimes contrasting) mixture of distinct morphostructural types. Although the central districts still comprise highly valued urban buildings, their aesthetic capitalization is low in the absence of restoration works.

The issues concerning the organization of urban space mainly aim at:

a) the design of several thoroughfares, radially connecting the present districts, which should ensure better links between the urban subsystems that gravitate around the central core;

b) the completion of the outer ring in the southern part of the city to ensure the removal of high traffic from the central area of the city;

c) the railway crossing Aradu Nou and Micălaca districts is a restrictive and ordering factor in the organization of urban space, but the plans of its removal outside the city hang at poise for the moment because of the high costs;

d) the locations of new residential units, their integration in the urban system and the imperative of saving urban space as there are many districts with very low population density and available space for building.

Eventually, the morphological evolution of Arad cannot be taken out from the economic, social and political context of the geographical space where the city is located. The future evolution of the city would need to harmonize, on the one hand, with the organic development which ensures durability to the urban process, and on the other hand, with the planned development, which should order, in space and time, the sequences of the general development of the city.

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*At about 6 km outside the city, the so-called “West District” has been inaugurated in 2001. It covers an area of about 30 ha and it mainly consists of individual dwellings. The first projects, made in Italy, glaringly ignored the local conditions and realities, according to architect T.O. Gheorghiu (2002, p. 157).*
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