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FORMATION OF GROUP SYSTEMS OF SETTLEMENT ON LOCAL LEVEL, AS A RESULT OF ADMINISTRATIVE REFORMS IN UKRAINE

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This article provides an overview of general factors of formation of settlement systems on local level. Positive and negative aspects of different stages are emphasized, framework of current state and further development paths of group systems of settlement on local level in the process of administrative reforms in Ukraine.

Поступила в редакцію 11.01.2018 г.

УДК 711.01:72.036 (091)

DEVELOPMENT OF CITIES AND LOCAL COMMUNITIES IN LIGHT OF CHAOS THEORY

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Introduction. When observing the current spatial development of cities in Poland and around the world [10], we can get the impression that the degree of the orderliness of spatial structures in cities is relatively small. If we, however, compare the spatial compositions of large cities that develop in different economic and political systems, we come to the unavoidable observation that the degree of freedom in architectural work (or, in other words - the lack of urban composition) is directly proportionate to the degree of a society's democratisation. Reaching to the history of the development of cities, and especially to that of the urban forms of the first Greek cities, we can observe that these cities were characterised by a considerable looseness in terms of their spatial layout, limited by defensive considerations and the necessity to adapt their plan to topographic conditions. Despite the fact that it is a Greek - Hippodamos of Miletus - who is considered to be the father of the urban grid, this basic geometric mesh that spread globally in later centuries and can be found all over the globe, regardless of any other conditions,

then, unfortunately, we can observe the relatively highest degree of the looseness of spatial forms in Greece, and not only on the urban scale, but also on the architectural one. Unfinished (probably intentionally) buildings create an impression that each city is in a ceaseless process of "being created", despite the fact that after taking a closer look at the buildings we can see that a considerable amount of time has passed since the moment of the "pausing" of construction. Even more intriguing is the phenomenon of "infilling" some apparently random spaces in the built concrete skeletons, which makes it possible to make a reference to the latest trends in terms of the theory of "parasitic" architecture [8] (Bardzińska – Bonenberg). The infilling of Polish rural and urban areas that have been assigned for being built up in local spatial development plans appears to be similar. The lack of coordination in the construction of individual construction projects not only deepens the already extant spatial chaos, but also creates the impression of a "planned" increase of the intensity of said chaos. All the while one of the main goals of spatial

planning being to work towards obtaining an effect in the form of spatial order! If, however, we are to search for cities in which spatial order is stable and whose composition is unchangeably legible throughout the flow of time, we can find these unchangingly structured and compositionally durable spatial organisms in countries that have centralised political systems, countries that are strong in economic and social terms. Does this observable spatial chaos not reflect a more serious crisis, one that is a crisis of ideas? According to Ratzinger, this *"crisis of ideas in Europe after the fall of the communist systems has its consequences in the three following fields: a crisis of science, in reference to the world of spiritual and ethical values, as well as in the search for new religions"* [1] (after: Napiórkowski A. p. 256). Should we, then, state that democracy in modern Europe is conducive to spatial chaos?

The shaping of modern cities in the context of currently ongoing social processes.

The shape of modern cities is mainly in-

fluenced by: economic attractiveness in the form of large local employment markets for potential residents and, as a result - a demand for and a supply of apartments, as well as the efficiency of transport systems, especially those from places of residence to places of work. Zipser [2], when building his model of a future city with a triangular and chain structure in the 1950's, paid particular attention to preserving the balance between different citygenic factors and their allocation within space. Using the accessibility gradient as a basis, he built the spatial structures of his geometric chain and triangular model in such a way as to balance built up areas with open ones. Such a model potentially provides residents with good access to places of work and recreational zones in nearby green areas, concentrating basic services in zones that are not endangered by vehicular transport, as well as bases the effectiveness of the functioning of the transport of people in an appropriate proportion between a rail-based system and an individual one, based on cars.

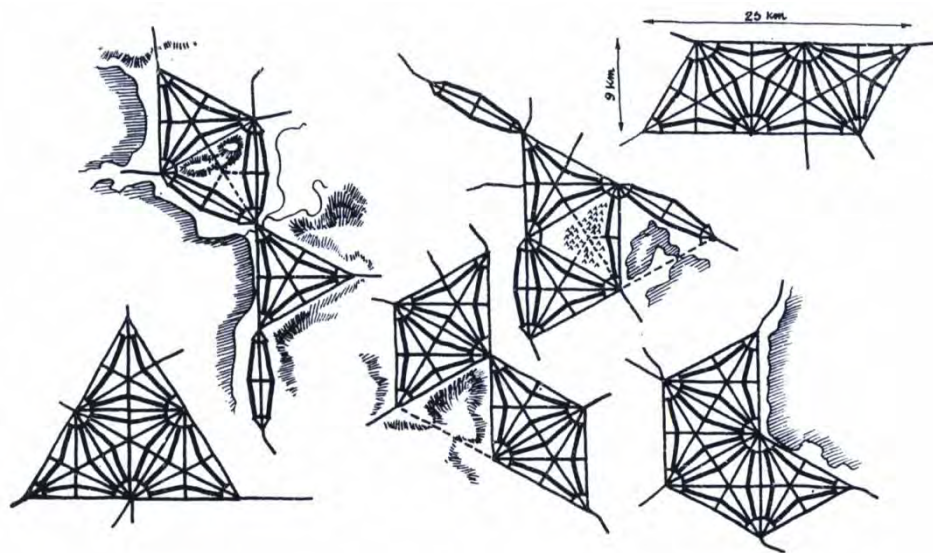


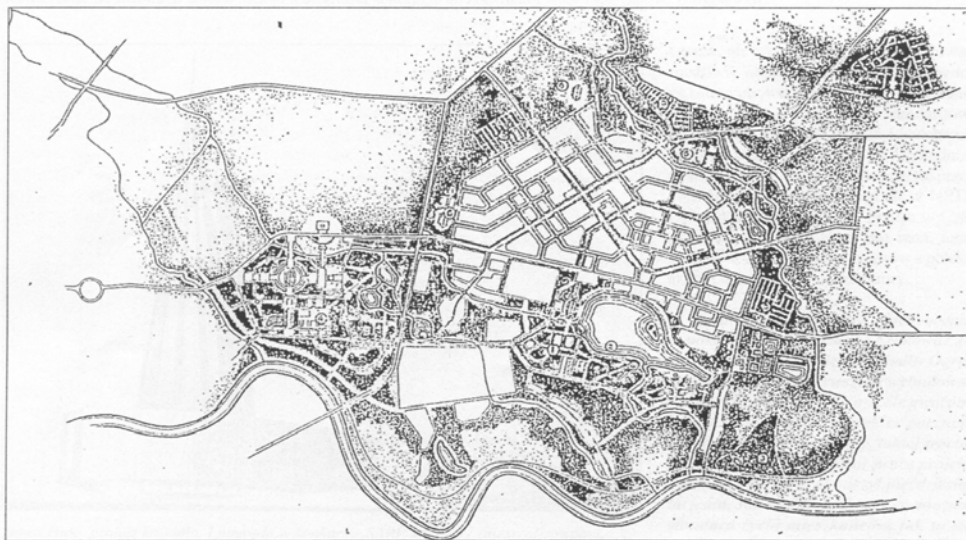
Fig. 1. A model of the layout of a city with a triangular and chain structure according to Zipser T.
(thanks to the courtesy of the model's author)

This vision appears to be working even today, when the richest German cities like Munich or Stuttgart are subsidizing mass transport, deliberately limiting vehicular accessibility to their city centres. The strong

municipal governments of these cities do not allow the depreciation of space within their administrative borders, also caring for a logical and effective means of development in neighbouring metropolitan regions, maintain-

ing spatial order at an appropriately high level. The borders between built up areas and the open landscape are still legible there, despite a high population density. The increase in the attractiveness of cities is accompanied by an influx of new residents, however, skilful efforts towards creating local communities have a relatively high significance in the creation of non-antagonistically oriented, multi-ethnic districts in metropolises and their satellite areas. For instance, the model estate of Ostfildern, [4], which was built in the years 1992-8 near Stuttgart, built neighbourly ties between residents by basing their establishment on joint work in landscaping the area. These areas were deliberately left to be "self-landscaped" in the spaces between building complexes and in the vicinity of kindergartens and schools. Known social experiments creating cooperation and self-help inside local communities were involved in the construction of the Tübingen estate, replicating somewhat the "old" social urban structure, in addition to efforts towards pro-

environmental development with the use of modern technological achievements in regards to generating renewable energy, for instance those in the buildings of Messe Rheim in Munich, which can be compared with the over seventy year old concept by Juchnowicz [7] that featured complementing the urban structure in Nowa Huta with a great park with an artificial lake - one which, unfortunately, has not been implemented. The goal of this great design of the Stalinist period was not to create a composition of the urban layout of a new city, but the construction of a steel mill. It is well known that industry, leading to the creation of employment and bringing measurable economic benefits, exerts significant influence on the spatial development of its vicinity and thus of entire urban areas, through its location. The selection of the Krakow village of Mogiła as the site of the future Lenin steel mill and the construction of a workers' district - Nowa Huta - was not dictated by economic conditions, but political ones [x].



Nowa Huta, projekt terenów zielonych wraz z koncepcją Parku Południowego wg Stanisława Juchnowicza, rok 1954.

Fig. 2. Nowa Huta, design of green areas along with a conceptual design of the Southern Park by Stanisław Juchnowicz, 1954, not built (thanks to the courtesy of the Author of the design)

The use – if the conceptual design illustrated on figure 2 was to be implemented - of this large body of water as a source of renewable energy in the twenty-first century in order to obtain heat during winter and as a

cooling medium in the summer through the use of the latest convertible, central energy systems, could constitute quite an attraction to the community of Nowa Huta. Of course, we cannot fail to mention the basic condition

enabling the creation of this type of large urban projects – appropriate financial support, as well as the possibility to manage a site in the scope necessary to construct a district with a population of almost 200 thousand. The price that a part of the public had paid for the implementation of this project through the loss of their property was very high and has in earnest not been appreciated or compensated for to this day by the "new" society, which was provided with employment and the possibility to settle in this district. Today it is difficult to find even a modest stone commemorating the former owners of the area - the village of Mogiła – on the area of which a practically new city and a metallurgy plant were built. Compared to modern, currently built, so-called "developer" housing estates, the degree to which Nowa Huta is equipped with social infrastructure is unachievable, which leads to the necessity of paying various types of social costs by young families that are forced to transport their children to distant kindergartens or schools. The research performed by Mironowicz [7] indicates, among other things, that *"in the early phase of the creation of the current pattern of the city, children can be considered as the greatest victims of the construction of new forms of the organisation of the economy"*. It appears that this statement has not lost its validity even today.

The redevelopment of the centres of historical cities and the sensitivity of their local communities to the ongoing functional transformations associated with redevelopment.

The residents of large cities with preserved historical centres are probably proud of the possibility of identifying themselves with their city. However, if we were to perform an in-depth study of what constitutes the spatial basis for enabling this identification, it would turn out that it is usually the centres and the historical buildings inside them, as well as the public spaces of the areas that play this role. These physical elements of spatial structures are usually reported by residents in polls organised by sociologists who study the phenomena of creating the

image of a city, which undergoes commercialisation over time. At times, the role of this image is also played by other, not necessarily centrally located structures, such as - for instance - the Eiffel tower of Paris or New York's Statue of Liberty, Lisbon's statue of Christ or the Church of the Holy Sepulchre in Jerusalem.



Fig. 3. Lisbon. The statue of Christ towering over the city and the Tag river. Phot. by the author

Cities whose very names constitute a significant symbol for many religions, like Jerusalem, exist not only in the physical space, but also in the spiritual space, existing - akin to a legend - unchanging through time, although their physical spatial structure is affected by the influence of this unstoppable destroyer. Uścińowicz [8], when writing about the phenomenon of the city of Jerusalem, observed that its sanctity - without question to the three monotheistic religions - has remained unchanged throughout the centuries. The physical signs - symbols of this exceptionality are: the golden dome of the Al-Aqsa Mosque, the dome of the Basilica of the Holy Sepulchre and the Wailing Wall, a fragment of Herod's Temple demolished by the Romans. In each historically evolving city there is a centre that is decorated by out-

standing works of architecture, erected in it by successive rulers or by democratic societies. Their architectural forms are referred to in ordinary, everyday relations by successive generations of the residents of those cities and it would be difficult to imagine that these cities could be left without these buildings and the spaces that form between them and in which people reside. It is these elements that provide residents with a feeling of belonging to local communities that identify with spatial forms familiar to them since childhood or the moment of the selection of a place of study, work or the further stage of life by the individuals that comprise these communities.



Fig. 4. Jerusalem, a panorama from the Olive Mount. Phot. by the author

However, it was not always that efforts were made to preserve the historical qualities of city centres. The famous great modernist Le Corbusier [9] believed that *"The centres of our old cities with their cathedrals and churches must be demolished and filled with skyscrapers"*. This greatly modernist and radical approach of his to the past has, fortunately, not been put into practice, which is why we can currently stroll around a Paris that is almost the same as the one that comes to mind when reading descriptions found in literature and old illustrations. Efforts aimed at transforming the spatial structures of old town districts are currently necessary. They are being forced by the changes in the manner and quality of living in cities, as well as the ceaselessly ongoing technical and technological progress [11]. In addition, another natural phenomenon is how city centres are

being used. They lose their traditional residential form of use to a greater and greater degree, which becomes particularly clearly visible in cities that are popular on the global scale, as well as those known as tourism sites. The permanent and mostly older residents of city centres are being pushed out by economically strong corporations, transforming current townhouses into hotels for groups of tourists or apartments for short-term rental, usually meant for individual tourists or students. Retail functions are being replaced with gastronomic ones, which has some positive significance to the preservation of individual buildings. Old buildings in city centres usually have large cellars, which are being left unused for years, worsening the technical condition of buildings. A change of the form of use and developing the underground sections of buildings into gastronomic premises, apart from purely technical aspects like moisture removal, improving ventilation and heating them in the winter is also of significance in psychological and social terms - historical city centres, without permanent residents, "live" also in the evening and during the night, leading to an improvement in the level of safety, which is usually quite low in public spaces that are deserted.



Fig. 5. The deserted Main Market Square in Krakow in the morning, without tourists and permanent residents. Phot. by the author

This is why it is so important to take action in favour of effective and planned efforts aimed at a logical preservation of historical qualities in compliance with the precepts of their protection, ones that are not limited to structures - the buildings and

squares of the old districts of city centres. However, striving to preserve the unique old town climate and atmosphere is much more important than purely revitalising building substance. It is due to this climate of the past and the participation in unique events that stem from local traditions like processions, festivities, festivals or celebrations that old towns are being ceaselessly flooded by a stream of tourists. Their goal is not only being satiated with food and drink at the innumerable gastronomic locales - they can probably find that at home, and probably cheaper. They are being attracted by that which is unique and beautiful - the culture and the arts of a given city and country. Care for their preservation and continuity should be of utmost priority. Efforts aimed at increasing the level of the quality of the protection and conservation of historical structures, which are usually not performed methodically, can lead to results that perhaps are not the direct outcome of chaos theory, but instead of improvement, they lead to a deterioration of the condition in which a historical substance is preserved and to unforeseen changes, ones that do not necessarily have a positive character.



Fig. 6. A scene from the procession of St. Stanislaus from Wawel Castle to Skalka in Krakow.
Phot. by the author

What does chaos theory have in common with spatial planning?

It would appear that chaos theory does not apply to matters associated with spatial planning or urban and architectural design at all. However, if these matters were to be deeply analysed, some similarities could be pointed to in the prognostication of the fu-

ture effects of either the construction or abstaining from the construction of some large-scale and local projects in the aforementioned fields. The basic problem appears to be the preservation of a certain unity of nature, whose functioning is constantly being disrupted by man's activity, without being entirely sure of the long-term results of his actions. He thus cannot be sure of the unexpected future results of the feedback loop effect which is shown by the fact that man's activity can also affect himself.



Fig. 7. Krakow, the Wawel Dragon near the Dragon's Cave, a sculpture by S. Chromy - a legend animated by modern technology. After an sms is sent, the dragon breathes fire to the enjoyment of tourists.
Phot. by the author

It is, unfortunately, certain that a chaotic environment must influence the functioning of man in some way, something which was observed and proven by numerous groups of hermits, who have, throughout the centuries, separated themselves from the chaos and noise of the world, in order to contemplate the beauty created by the Word in harmony with nature and God, in an order of the quiet and harmony of the spheres. The desire to conquer the material world through techno-

logical achievements is nothing in comparison to the possible effects of the tearing apart of this spiritual, harmonious coexistence of the homo sapiens with the nature that surrounds them. It is also about people not allowing themselves to be reduced to the level of a "living addition o a computer". The life of a community also requires the presence of legend, for instance like the one about the Wawel dragon, without which the imagination of children - and with it the creativity in transforming reality into one that is better than the current one - cannot be developed.

Conclusions

1. In order to avoid chaos in spatial development and obtain the best possible results in the renovation of historical city centres, in which it is particularly important to achieve a high quality of public spaces, spatial policy should be conducted in a careful manner, regardless of the size of a project, but with particular emphasis on the needs of the local community that inhabits the area covered by a project.

2. Areas that are smaller on the spatial and programmatic scale should be designed with a greater degree of precision.

3. The degree of the precision with which a design is prepared is one of the more important factors and should be adequate in relation to social policy and social relations in local communities. Residents prefer well-known, smaller and friendlier communities that remain in closer interpersonal relations.

4. Chaotic spatial development increases dangers associated with the influence of undesirable social behaviours in the downtown areas of historical cities (and is not limited only not only them).

5. Limitations in accessibility and a lack of basic services make it difficult or even outright impossible to carry out an effective spatial policy. Furthermore, it leads to the "pushing out" of permanent, economically weaker residents of downtown districts outside of their current place of residence, to the detriment of the continuation of the cultural values of these areas.

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THE CHAOS THEORY INFLUENCE TO THE CITIES AND THEIR SOCIETIES DEVELOPMENT

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The influence of the degree of the preservation of cultural heritage, of which society is both the creator and consumer, is unquestionable. However, the manner in which society treats the past, especially its material traces in the form of architectural heritage, is of key importance to the perception of not only historical architecture, but especially the quality of the space of historical cities. Efforts aimed at improving the degree of preservation of historical structures that are not carried out in a methodical manner, can lead to results that indirectly arise from chaos theory, namely - in unintended changes in spatial structures, not necessarily of the positive kind.

Поступила в редакцию 11.01.2018 г.