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THE ROLE OF URBAN-PLANNING IMPULSES IN THE ACTIVITY OF CITY-WIDE INSTITUTIONS

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Abstract. The subject of our study is the issue of post-industrial urban planning and problems of impulse development and city management in the conditions of the informational society, which turned out to be the most urbanized in the history of mankind.

Key word: post-industrial modelling of urban space, universal impulse factors for the rapid development of the city.

1. Introduction

At the beginning of the 21st century, the “procedural” urban model has undergone significant changes. The growth of the service sector has changed the transport priorities, large human settlements and crowds, requirements to the living space, and so on. Service and non-industrial activities, which are mainly concentrated in the central part of cities, have created new infrastructure challenges that can not be resolved through the volatility of “non-industrial” activities the success factors of which are not stable and require constant creative search.

2. Basic Theory

In this article an attempt is made to consider the current urban situation in the context of the analysis of the concept of centralized modelling of urban development and the competence of bodies that carry it out. These data can be considered as an effect of impulse factors on rapid changes in the city, as well as in the form of an applied system of knowledge and recommendations on the theory of city development in the 21st century.

3. Results and Discussion

An important step towards outlining the theoretical and practical scheme of impulse modelling of post-industrial urban fabric is to define the role and place of universal factors of rapid urban development. The starting point for the modelling of urban fabric with impulse factors is the structure corresponding to the minimum possible number of inhabitants of the metropolitan city which makes about 1.2–1.3 million placed in an optimum density of 10.000 people per square kilometer. Universal city-planning impulses, four of which are infrastructural, demographic, economic, and legendary may to a certain extent be present in the proto-post-industrial experience of analyzed hyper-cities [1, 2, 3, 4].

Emphasizing the theoretical and practical schemes of impulse modelling of post-industrial urban fabric, one should pay attention to the diversity of universal factors of rapid urban development.

In the first case, the infrastructural factor, the factor of convenience, which means the difference in the use of infrastructure goods in comparison with other similar cities, contribute to a mechanical increase in population. In the conditions of spread of such phenomena as “economic especially that part of it, which has to do with the factor of solidarity. In the context of proto-post-industrial concept of knowledge” and “economy of attention” by itself a large population can not be considered as a benefit to the development of the city.

The universal accessibility factor implies the possibility of taking advantage of the available infrastructure by a maximum possible number of inhabitants as opposed to the competing cities, where such infrastructure is not available. Similarly, the demographic factor of impulse development can be interpreted, in some way, as experience and the ability of local groups to organize horizontal connections and formulate common goals, regardless of the existing centralized system, and it is one of the most obvious signs of the paradigmatic expansion. In the design of a post-industrial management model, such structures should be supported and viewed as collaborative. A completely different factor is “the self-initiative”, which can be considered as one of the keys in the system of transformative modeling.

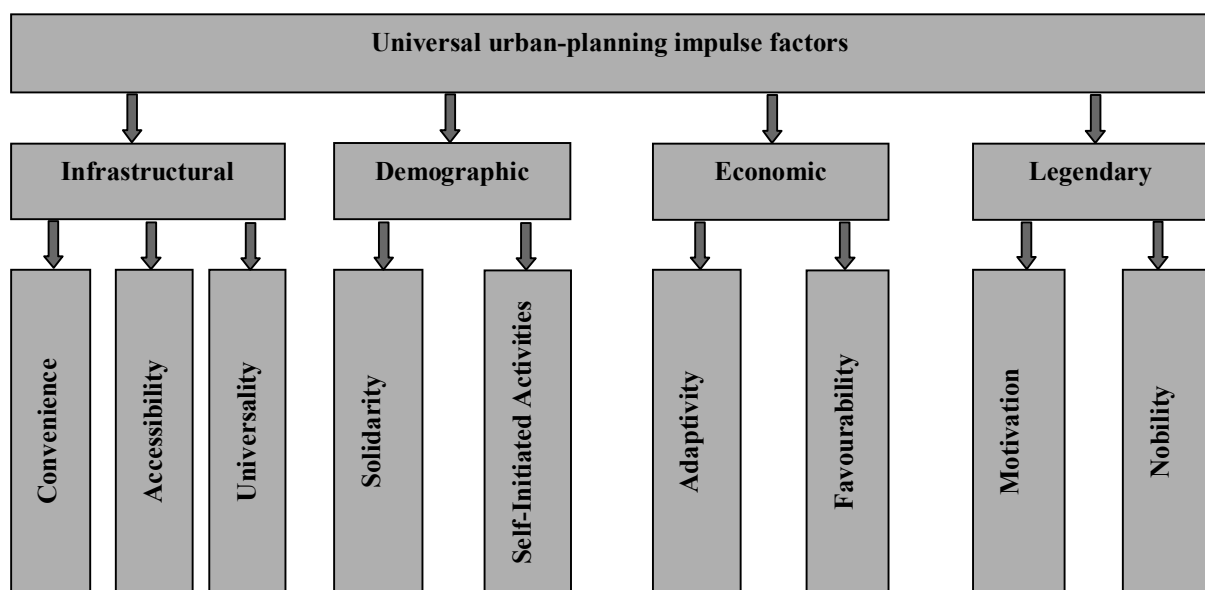


Fig. 1. Hierarchy of urban-planning impulses of the modern city

In the context of theories of modern urban planning, self-initiated activities as a feature of the population often appear in the concepts of “creative city” [5] and “creative class” [6, 7, 8].

Among the economic factors of the universal block of factors of impulse development of urban structures, which include adaptability and favourability, it is worthwhile to focus on the latter, since the former, due to its specificity, is aimed at a distant historical perspective associated with the formation changes. The role of a favourability factor, which implies a targeted programme of the allocation of individual formation of economic sectors by providing them with preferential legislative or logistical functional conditions, is considered completely different. Support of sectors of the economy has been used in various historical and social conditions, but for its implementation it is imperative to have strong institutional, managerial or private instruments, which may decide on changes in legislative and regulatory conditions.

A special part of the block of universal impulse factors belongs to the factors that are defined as legendary in this work. Two types of such factors are identified as factors of 'nobility' and 'motivation'. By 'nobility' we mean that a certain solidarity group creates or constructs its own cultural space which acquires material forms, symbols, associations, traditions, the sum of which creates a sense of special value of a place.

The 'nobility' factor is one of the most important elements of modelling of the post-industrial urban-planning impulse. This is due to the fact that the industrialized economy itself, which is based on technical progress, has a tendency for a constant decrease in the cost of production which might, in a competitive environment, acquire additional value mainly through the formation of an appropriate atmosphere of consumption, conjuncture of a “lifestyle” and the concept of “prestige” and “tradition.” All these categories are

closely interrelated with the birth of the ethno-postmodern and informational economy, as it was in the media that a significant part of the added value of production was created. The legendary nature of the city due to its 'nobility' is mainly a phenomenon close to the above-described transformation of the industrial economy into the informational one. In the pre-modern and modern era, the 'nobility' was achieved as part of the self-interpretation of certain religious (in the first case) and national (in the second case) groups, now they can be related to certain professions or subcultures (life styles) that are necessary for the development of the city.

An important factor in stimulating the human potential of the city is the feeling of competition and rivalry in relation to the similarly developed and progressing neighbouring cities, which involves the city community. The experience of limited rivalry between the ancient Greece and the northern Italian cities of the Renaissance era contributed to the active development of science and knowledge, intellectual activities and arts. At the same time, it should be noted that such competition, though sometimes being quite radical including military conflicts, was of a framework nature, and in the first case, it was limited to the opposition of the Hellenic world to barbarism, and in the second – to the domination of a unified Roman Catholic religious network with a single administrative center.

If such competition was restricted from radical forms of confrontation and limited to the non-aggressive manifestations, the motivational quality of the 'legendary' factor could be a source of additional growth of the city's activity. However the motivational factor can act most effectively in the case of opposition to the city structure. Such an opposition is already an important element of the city-wide discourse around important issues of its infrastructure development (for example, discussions around the reconstruction of Bandera Street in Lviv in 2016–2017, when all the participants turned to examples of a competing for a “different” city –the one without a cobblestone and the one where it is partly preserved).



Fig. 2. The present condition of the road surface from the pavement side, Bandera street, 2018, [9]



Fig. 3. Project proposals for the reconstruction of the Bandera street, project of 2017, [9].

Thus, for the construction of city-transforming impulses for the development of a post-industrial city, the universal factors of the rapid growth of urban fabrics, should be divided into two parts. One of them can be

attributed to the authority of the city center for administration and regulation. These include the newly-assigned factors: accessibility, self-sufficiency, favourability, nobility and mobility. All other factors can be attributed to the scale of local clusters and implemented at their level.

In accordance with this statement, the question of the priority of cluster and city-wide impulse categories is aroused. On the one hand, the concept of so-called “urban village” tells us about the ideal accumulation of all necessary functions within pedestrian accessibility with a radius of 1000 meters. On the other hand – as it is evidenced on the amount of analyzed data, there is the impossibility of the existence of such a ‘formation’ by itself, and not in the group. The modern transitional stage between two urban-planning paradigms – modern and post-industrial – does not make it possible to determine exactly what type of links (horizontal – within which the cluster system has developed, or vertical, in which traditionally city-wide administration is carried out) can be linked to the future of urbanism. In any case, such large organisms, as the hyper-cities of the early twenty-first century, do not leave doubt that even if the horizontal type of connections will ultimately be recognized as a priority, the reconciliation of their plurality and complex logistics of the living of multimillion masses in one settlement will require coordination and “superlocal” structures, which will replace the current upper levels of vertically integrated systems of modernism.

In this sense, the impulse strategy appears as a multi-stage combination of factors, the final result of which is the creation of a local cluster within which the widest possible choice is combined with the closest possible accessibility. The idealistic hypothesis of such a concept involves endless choice in the absence of any distance to its implementation. The realistic hypothesis involves a fixed distance of the pedestrian movement in the form of a conditional circle of 2 kilometers in diameter, within which there is a continuous process of saturation with the possibilities of choice.

Since the question of the priority of horizontal and vertical links in the management of the city-wide system of a large post-industrial city can not be resolved, at least at this stage, we follow the idea that is formed on the basis of the inertia of modernism and the existence of a structure of predominantly centralized management. In this context, we can distinguish a universal impulse layer which consists of the following aspects:

- a) creation of infrastructure advantages in relation to competing cities of the regional area – competition of infrastructure;
- b) design of conditions for flexible education and cross-field communication – competition of competence;
- c) development of favourable conditions for specially selected spheres of activity – competition of exclusivity;
- d) creation of the reality of an exclusive presence – competition of legends.

In addition to the universal factors of impulse development, which should be the subject of the activity of local institutions, attention must be paid to the formational factors, among which some aspects of the strategy of action variability can be distinguished. First of all, it means the projection, design and placement of objects of one-time event with a long-term infrastructure effect – stadiums, concert halls, congress halls, which arise mainly within certain international or national events and require planning for their future use in the city context. It is a factor in the spin-off development of urban fabric which increases the number of choices among surrounding local clusters, and so on in certain areas. Moreover, the instruments of such a factor include the organization of periodic short-term events with similar implications for urban fabric. However, with the development of passive and active renewable energy systems, it is possible to predict the perspective of individualization and regionalization of some types of infrastructure of the settlement, however, it is impossible to speak about the complete autonomy of local clusters in the field of water supply, transport, medical care, specialized education, etc. All these phenomena remain a hallmark of a large city and its functioning as integral unit. High quality of water, medicine, and transport supply, which are also joined by formation factors such as places of heterotopy, makes it possible to create a space for the permanent residence of highly self-sufficient (self-acting) population groups, as well as cause the development of the education sector. All of these results are caused by the centralized administration within the framework of creating infrastructure benefits as part of the impulse strategy.

The main task of designing conditions for flexible education and convergence of competences (intersectoral communication) is to develop the factors for new economic strategies and creative commercial symbiosis. These perspective results have a direct impact on the development of production capacity and, accordingly, the accumulation of funds. From a purely town-planning point of view, it is about creating reservoirs of territory and space that can meet the needs of flexible education spontaneous and dynamic in

nature. It is aimed at different age groups, diverse and changeable formats of knowledge interpretation. By its content, flexible education and convergence of competences are a necessary tool for the creation of new and useful knowledge paradigm in the post-industrial era, the programming and modelling of which takes place at the level of city-wide institutions.

Creation of especially favourable conditions for the development of separate specially selected branches of activity (favourability) can not fully develop within the framework of a local cluster and requires management at the level of the entire urban structure. This proves the fact that favourability requires not only considerably greater possibilities in the sphere of transformation of the regulatory base, but also the availability of a developed intellectual centre that will be able to offset the risks of the experimental nature of such activities. In addition, the prospects of favourability largely depend on the peculiarities of the climate, educational structure, resources and other similar factors of the city as a whole, and it is almost impossible to fully engage them at the level of small rayon (region) structures.

A very specific part of that segment of impulse modelling, which is carried out at the city level, is the development and implementation of urban legendary strategies through the creation of a socially confirmed subjective experience of exceptional presence. In a nutshell, this phenomenon can be linked to the creation of city-planning motivation associated with the idea of a place.

Following the definitions of the community nature based on the foundation of emotional character [10], we can argue that in the first case, it is often associated with emotional attachment to certain mystical or religious identity patterns, and in the second – to the national ones. In most cases, these patterns overlap. Athens, Budapest and Jerusalem had a rapid development phase in the 19-20th centuries not because of the factors of favourable geographical location, climate or industrial potential, but above all, because of the idea of a place that is highly sensitive to the national patterns of self-consciousness of the respective solidarity groups.

At the same time, in the post-industrial era, residential potential of pre-industrial and industrial legendary models has not always been adjusted to the problems of the urban science of the 21st century. In addition, their motivational effect is used by relatively small, though passionate groups of the urban population. Therefore, it is necessary to outline the needs and strategies that should be used in modern context of the legendary doctrine.

Such urban formations as the Silicon Valley, Mazdar, Palm Jumeirah are examples of the creation of the effect of “exceptional presence” in the post-industrial social formation. They are at different stages of their development and have different ontological nature, but they present an idea of what a living space can be, which ensures a legendary reputation in the 21st century. From the point of view of city planning, the Silicon Valley is not a special phenomenon that can be outlined in project categories, but it is an external factor, and a consequence of a large number of technological innovations. “Exceptional presence” can be taken as an additional argument in commercial competition and advertising strategy that exploits the existing idea of a place with its own purpose. The separation from geographical, cultural and semantic contexts makes it possible to state that the Silicon Valley is not so much a legendary place as the legendary organization of labour, the significance of which depends on the quality of the products (intellectual and technological) produced there.

In two other cases (Mazdar, Palm Jumeirah), we can discuss the design systems that were originally planned as an emotional event on the theme of a special environment, thus becoming sensitized to the information-like state of the era of developed media. At the same time, these systems operate with other consistent elements of the subject environment such as landscape and architectural form, which provide them with more strength power in the context of legendary urban structure.

Due to the lack of a sufficient array of scientific generalizations and relative consensus regarding the social-community dimension of the post-industrial era, one can only intuitively outline the characteristic features of social-valorisation factors that will affect the category of legendary location. Having the information specifics of the era, we can assume that, in place of the religious associations of the agricultural period and national associations of the industrial age, associations formed on the basis of a common interpretation of knowledge will be introduced. Such groups, or solidarity communities, can be formed through various forms of technology interaction and information exchange, and they are likely to be flexible and not rigidly determined (that is, they will be inclusive).

Such a rather vague picture of the new types of social integration might become more specific if the inclusiveness of such a community is replaced by exclusiveness. Knowledge and its interpretation, in this case, is

regarded as the attainment of only a certain limited circle, which uses it to generate economic gains, power and civilization influence, or, on the contrary, to isolate themselves from an unfavourable or undesirable environment. In this case, exclusiveness is achieved not so much by means of directive disciplinary restrictions, but by the symbiosis of human activity and technology. Accumulation of as much knowledge as possible is only a prerequisite for the realization of such a community whose success depends on the way it is interpreted. The information and technological products created in this way will become a new kind of instrumentation of the confrontation of communities, which was a weapon in the agricultural age, and it is the economy in the industrial age.

At the same time, it is worth saying that the author of this paper does not see the prospect of implementing such a scenario in such a pure form as it is described theoretically. On the other hand, it should be perceived as a speculative model that can not be applied in practical urban planning. The experience of previous formative transitions proved that the principles and mechanisms, as well as the socio-cultural aspects of one or another period, never disappear with the appearance of a new formation model but simply overlap. It applies both to the sphere of economic relations and to the sphere of materialistic culture. Therefore, in the context of the legendary strategy, all three of its formation models, which were outlined above, should be considered together.

All these considerations should be taken into account in the context of the main goal of the legendary strategy, namely the creation of conditions for the development of post-economic activities [11], in which the traditional priority of receiving economic profit is shifted to the background. There are two sources of such relationships: on the one hand, one should have more free time and ways for leisure activity, and, on the other hand, the unnatural speculative pricing of the late industrial age which is based on socio-constructive marketing (the sale of goods as an attribute of the “lifestyle”). Both sources are in the position of a systemic conflict in which post-economic relations look like a natural reaction to property imbalances and the discriminatory distribution of material goods produced in society. Despite such an ontological nature, post-economic relations do not exist, as by default they can not exist beyond the traditional mechanisms of market-speculative regulation, which constantly engages post-economic forms of activity in its system and diminishes their achievements. In order to survive, post-economic forms are forced to use one of the possible ways to exist, namely – the constant generation of new ideas and formats for their realization. Thus, post-economic relations, in the end, prove to be advantageous to the traditional system, since it, although losing in the first stage, is much more acceptable in the future, as a result of the co-optation of innovative models derived from the post-economic sector.

In an urban-planning context, legendary structuring aimed at stimulating post-economic relations, is the source of support for any forms of non-systemic economic activity, creating favourable and comfortable living conditions for it. This task is important in the context of balancing the effects of the so-called “creative” economy, based on the accelerated creation of new industries and demands, through an unexpected combination of knowledge. This is clearly seen in the example of Shanghai, where the “creative” economy leads to severe stratification of society and the emergence of tensions both in the middle of the “creative class” and those groups of people who find themselves outside of it [12, 13]. It is the post-economic activity and its legendary character that makes it possible to avoid a new antagonistic division of society and, on the one hand, to preserve the “creative class” and to positively conceptualize those groups of inhabitants who find themselves beyond its borders on the other.

In this sense, the strategy of legendary structure acts as a three-component system of views consisting of archaic level – finding and updating of historical, symbolic, and religious aspects.



Fig. 4. Archaic legendary structure, Montmartre in Paris. Source: photo by Andriy Pavliv

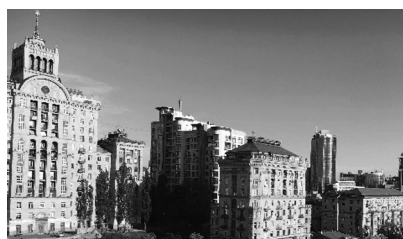


Fig. 5. Modern legendary structure, Maidan in Kiev. Source: photo by Andriy Pavliv

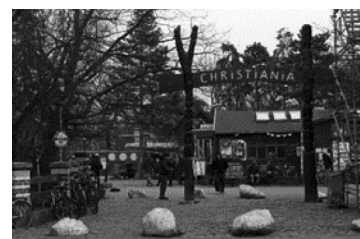


Fig. 6. Communicative legendary structure, Christiania in Copenhagen, [14]

Thus, the city-wide stage of impulse modelling of a large settlement is outlined, consisting of a combination of factors of accessibility, amateur or self-initiative, favourability, legendary structure and variable events. In this paper, it is assumed that their study, adaptation to a particular place and project implementation leads the structure of the post-industrial city to a high and balanced economic and social level of life. However it is only a part of the impulse strategy, the implementation of which is impossible without those factors relating to the proper level of development of local clusters that create a speculative picture of the city in the 21st century.

4. Conclusion

It is found out that for specific conditions of a post-industrial city, the design of the impulse model should consist of two stages – city-wide and cluster ones. Moreover, having the danger of hyper-urbanization, the first stage has to keep only those factors that have a 'transformative' character and those whose potential is mainly 'inhabiting' one should be left behind. The activity procedure of city-wide institutions with the use of such impulse factors as accessibility, favourability, self-sufficiency and nobility are considered.

The practical tasks of city-wide management institutions within the framework of the universal impulse layer, which are derived from the universal factors of the spin-off development of urban structures, are distinguished as follows: a) creation of infrastructure advantages as compared to competing cities of the regional area – competition of infrastructure; b) design of conditions for flexible education and inter-industry communication – competition of competence; c) development of favourable conditions for specially selected branches of activity – competition of exceptionalism, d) creation of meta-functional reality of exceptional presence – competition of legends.

It is determined that in addition to the universal factors of impulse development, which should remain the subject of activities of city-wide institutions, at the same level one should pay attention to the factors of formation among which some aspects of the strategy of the variability of events are highlighted. The practical realization of this factor is planning, design and placement of one-time objects with a long-term infrastructure effect – stadiums, concert halls, and congress halls which arise mainly in the framework of certain international or nationwide actions, and require planning actions from the point of view of their future use in the city context – as a factor of the spin-off or rapid development of urban fabric in certain areas, increasing the number of choices among surrounding local clusters.

The practical structuring of impulse modelling of the city's legendary strategies through the creation of a socially confirmed subjective experience of exceptional presence is outlined. Providing the information of specifics of the post-industrial society, it can be assumed that replacing the religious groups of the agricultural period and the national communities of the industrial age, associations built on the basis of a common interpretation of knowledge will appear. Such groups or solidarity communities may arise through various forms of technological interaction and information exchange, and they are likely to be flexible and not rigidly determined (that is, they will be inclusive).

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Андрій Павлів

РОЛЬ МІСТОБУДІВЕЛЬНИХ ІМПУЛЬСІВ В ДІЯЛЬНОСТІ ЗАГАЛЬНОМІСЬКИХ ІНСТИТУЦІЙ

Анотація. Проаналізовано ситуацію стосовно пост-індустріального містобудування та проблем імпульсного розвитку та управління містом, в умовах інформатизованого соціуму, який виявився найбільш урбанізованим за всю історію людства.

Зроблена спроба розглянути сучасну урбаністичну ситуацію, в контексті перегляду поняття про централізоване моделювання міського розвитку та компетенцію органів котрі його здійснюють. Усі ці дані, самі по собі, можна розглядати як теорію імпульсного розвитку крупного поселення у своєму розгорнутому викладі, однак крім того, також у вигляді прикладної системи знань та рекомендацій щодо теорії міста у XXI столітті.

На початку XXI століття, “процесуальна” урбаністична модель, зазнала значних змін. Ріст сфери послуг змінив транспортні пріоритети, місця скупчення мас людей, вимоги до життєвого простору тощо. Обслуговування та непромислова діяльність, що переважно концентрується у центральній частині міст, створили нові інфраструктурні виклики, які неможливо вирішити в рамках мінливості “непромислової” діяльності, фактори успіху якої не є стабільними і потребують постійного креативного пошуку.

Важливим кроком до окреслення теоретико-практичної схеми імпульсного моделювання пост-індустріальної містобудівної тканини, є роль та місце універсальних факторів стрімкого урбаністичного розвитку.

Універсальні містобудівельні імпульси, чотири із них — інфраструктурні, демографічні, економічні, та легендарні тією чи іншою мірою можуть бути присутніми у прото-постіндустріальному досвіді проаналізованих гіпер-міст.

Важливим чинником стимулювання людського потенціалу міста є відчуття конкуренції та змагальності щодо так само розвинутих та прогресуючих сусідніх міст, в яку залучена міська громада. Досвід обмеженого суперництва полісів класичної Греції та північно-італійських міст епохи Ренесансу, сприяли активному розвитку науки і знань, інтелектуальних видів діяльності та мистецтва.

Отже, для конструювання містоперетворювальних імпульсів розвитку пост-індустріального міста, універсальні чинники стрімкого росту урбаністичних тканин, варто розділити на дві частини. Одна із них може бути віднесеною до повноважень загальноміського центру з адміністрування та регуляції. До них відносяться щойно виділені фактори: доступності, самодостатності, фаворитивності, мобілізації та мобілізаційності. Всі решта фактори можуть бути віднесені до масштабу локальних кластерів та реалізовуватись на їхньому рівні.

Ключові слова: постіндустріальне моделювання міським простором, універсальні імпульсні фактори розвитку міста.