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REVITALIZATION OF URBAN AREAS IN THE LIGHT OF SOCIAL AND ENVIRONMENTAL PROBLEMS

The article is devoted to the problems of revitalization of the territories of large cities of Ukraine and the analysis of foreign experience that can be used. The authors emphasize the following problems: revitalization of the territories of former industrial enterprises, the positive aspects of such measures for solving social problems and the ecology of cities, the analysis of the territories of mass construction in the 1960s from the point of view of the problems that arise, and the assessment of the quality of living in them according to various indicators. The Pershotravnevyi residential area in Kyiv was taken as such an analyzed site. The purpose of the study is to analyze the aspect of revitalization of urban areas in the light of social and environmental problems, the existing experience and provide certain theoretical proposals based on field surveys of industrial areas and residential areas.

Keywords: urban areas, revitalization problems, social and environmental problems, greenery planting, infrastructure.

Formulation of the problem. The authors analyzed part of the building from Karela Chapeka Street to Nischynskoho Street. This area is characterized by the fact that the construction was carried out in a terraced manner, which over time caused problems with the appearance of cracks in parts of the houses located close to the steep slope. There are 10 mid-rise buildings, two of which date from the 1980s and are located on the lower level. Different methods were used in the planning: some of the buildings stand along parallel lines, two buildings are located perpendicular to the building lines. The advantages of this area include the following:

- a large green massif with flower gardens and fruit trees, due to which the site is often compared with the implementation of E. Howard’s “garden city” concept;
- sufficient distance from highways with heavy traffic.

Among the problems that appeared over time, the following should be included:

- lack of the required number of parking spaces;
- problems with placing garbage dumpsters;
- lack of the required number of primary public service institutions.

It should be noted that the aggravation of these problems is due to the fact that the initial planning of the areas of mass residential development did not foresee a large number of cars in the population, public transport dominated, modern waste sorting technologies were not used, and primary service facilities were usually small shops with limited assortment on the ground floors and in the basements of the buildings themselves. Over time, such stores turned out to be unprofitable and were closed, thereby creating the problem of the lack of retail service within the residential area.

Due to the lack of new plots for development, from time to time there are projects of revitalization of such massifs of medium-rise buildings by demolishing the old housing stock and building high-rise buildings, but every time there is a problem of resettlement of residents, because apartments in “khrushchevkas” are privately owned. A specific feature of such areas is the residence of poor people, mainly pensioners, and the middle class, who are unable to pay extra for additional space in new, larger apartments. In addition, there is often much less greenery around new buildings and they are located close to transport highways with heavy traffic.

The problems of improving the living environment and providing housing intensified during the Russian-Ukrainian war due to the large number of internally displaced persons. Although towns with temporary houses with a set of amenities are being built for them, it is clear that this is not the final solution to the problem. Since many displaced persons declare the impossibility or unwillingness to return to their native cities, it is obvious that permanent housing will have to be built in the cities to which they have moved. The same applies to those refugees who will return from abroad. Many of them lost their homes and property, so the question of their return directly depends on whether the state will be able to provide them with housing, work and appropriate living conditions.

The problem of revitalization of the territories of former industrial enterprises, which are not used according to their original function, is similar. This problem is especially relevant for the most important cities, such as Kyiv or Kharkiv, although it is beginning to be relevant for large cities, such as Poltava.

Analysis of recent research and publications. Taking into account the multifaceted nature of the problem, the authors processed scientific sources in the following main areas:

- research on the problems of mass residential construction in the 1950s–1980s in Ukraine [1–2];
- experience of revitalization of industrial areas [3–7];

- ecological aspect in architecture and urban planning [8–9];
- aspects of professional education [10];
- creative methods of revitalization of industrial areas [11–15].

The purpose of the study is to analyze the aspect of revitalization of urban areas in the light of social and environmental problems, the existing experience and provide certain theoretical proposals based on field surveys of industrial areas and residential areas.

The objectives of the research are as follows:

- to analyze the problems of improving residential massifs of mass construction in the 1960s and to provide theoretical proposals for their solution;
- to analyze the problems of repurposing former industrial areas;
- identify existing approaches to revitalization and evaluate their effectiveness;
- analyze specific examples of revitalization for artistic functions and provide theoretical recommendations regarding these measures.

Research methods. Research tasks determined the choice of general scientific research methods. In particular, the methods of historical analysis, comparative analysis, graph-analytical method and system-structural analysis method were chosen. Scientific methods were complemented by field surveys of objects and author's photo fixation. The result of the research was the creation of theoretical models of spectacular and visual art formation and their verification in experimental design, using examples of specific industrial objects.

Main part. It is possible to single out the following main characteristics of the territories of mass residential development, the so-called “khrushchевkas”. These are medium-story buildings (5 floors), brick or panel wall structural system (early series), one-, two-, and three-room apartments with walk-through rooms. In the early series, the kitchen was narrow, with a gas water heater. The buildings do not have elevators, the balconies are not glazed. Among the advantages of some such territories, it is worth mentioning a large amount of landscaping.

However, over time, the population of the cities grew, starting from the 1990s, almost everyone has their own cars, but the roads between the houses are quite narrow, and initially there were no parking lots, so they acquired a spontaneous character: residents park them on lawns, under windows, on asphalt part of the lawn for open car parking at own expense. The composition of the residents has also changed: pensioners who received apartments gradually died, and their children, grandchildren, tenants or buyers of apartments from their descendants live in the houses. In contrast to the previous elderly owners, the residents are sometimes people with average wealth who make repairs in apartments, glass balconies and initiate the arrangement of places for storing cars. Some of the elements of everyday life of the 1960s and 1970s are no longer needed in these areas, such as drying areas for clothes.

Similarly, over time, the green massifs stopped being organized and turned into thickets.

So, the problems of these areas are as follows: 1) discrepancy between the initial (project) and current population density; 2) lack of service facilities; 3) lack of parking spaces and narrow passageways between buildings; 4) wear and tear of engineering networks; 5) the need to replace old wooden-frame windows and doors; 6) lack of modern playgrounds; 7) the need to tidy up the greenery and plant new trees instead of dangerous old ones. The solutions can be as follows: 1) insulation of brick facades and replacement of old windows and doors; 2) replacement of communications; 3) arrangement of greenery and expansion of roads and arrangement of parking spaces at the expense of green lawns; 4) planting new trees instead of emergency ones; 5) on-site arrangement of laundry drying areas, parking lots or playgrounds.

The problems of revitalization of the territories of unprofitable industrial enterprises intensified in Ukraine even before the beginning of the full-scale invasion of Russia, and it can be predicted that these problems will remain relevant after the war. They are important not only for Ukraine, but also for most developed industrial countries since the second half of the 19th century, when the intensification of industrial development in the countries of Europe and the United States of America led to the emergence of territories with a concentration of production close to areas with extractive industry. These processes led to the emergence of specific types of town-planning formations, designed for housing workers employed in industry, these were large cities, small towns and settlements built with residential buildings of mass series, which were marked by such imperfections in terms of primary maintenance, which was mentioned above. Transport, in particular, the development of a network of railway tracks and highways, became an additional factor in the intensification of the processes of industrialization and urbanization. The activation of these processes took place against the background of the decline of agricultural production in small private farms without proper technical equipment, and hence the outflow of the population to industrial centers in search of work.

On the example of Kyiv, it is possible to trace how the problems that the city is facing today were laid down since the second half of the 19th century, when a ring of industrial enterprises on the far outskirts of the city eventually ended up among the central areas of urban development as a result of the city's growth. As part of the enterprises became obsolete and the territories became unprofitable for original industrial use, this also aggravated the problems of revitalization and change of function in the conditions of a lack of vacant plots for new construction, primarily residential.

It is worth noting that the problem of revitalization of the territories of megalopolises in Ukraine, such as Kyiv, affected not only former industrial areas, but also blocks of low- and medium-rise buildings, so cases of confrontation between city activists, monument protection authorities, the Ministry of Culture and developers have become more frequent.

The process of explosive growth of the population of the largest cities of Ukraine is connected with the Russian-Ukrainian war and the resettlement of people and the transfer of business from the East and South of the country.

Accordingly, this intensified the need to solve the problems of additional housing stock for displaced persons, workplaces for them, construction of social facilities, etc. In addition, the environmental friendliness of living is now declared, which also contributes to the repurposing of harmful industries in cities and the removal of such industries outside the city limits.

In this case, it is appropriate to use the term gentrification, which precisely characterizes the process of reconstruction and modernization of objects.

Revitalization, i.e. repurposing unprofitable industrial areas, is one of the ways to solve the shortage of plots for new construction. At the same time, part of the old buildings can be preserved with appropriate modernization and redevelopment, and in the case when it is a monument of industrial architecture, with the restoration of authentic parts that are subject to preservation. Most often, former industrial areas are repurposed for residential, public, commercial or recreational purposes.

The authors investigated this problem in the cities of Poland, where relevant positive revitalization experience has been accumulated – in Lodz, Cracow, Warsaw, Poznan. The experience of Lodz is specific, as most of the city's historical and cultural heritage consists of industrial facilities that are also architectural monuments, which imposes additional restrictions on revitalization measures.

Despite this, the experience of Polish cities must be adjusted according to the conditions of Ukraine, since most of the preserved industrial enterprises are objects of mass typical construction of the Soviet era, and this raises the question of the most effective option – complete clearing of the site and new construction, partial preservation of the buildings or full preservation.

The most common option today is the option when the owner buys a plot of land with industrial facilities, demolishes them and builds new facilities.

However, this option hides a number of dangers, namely:

- additional loads on nearby transport networks, often not designed for the appearance of a block of dense multi-storey buildings;

- in the case of the appearance of a new residential quarter, solving a number of related problems, namely parking and open parking lots, initial maintenance, additional loads on city engineering networks;

- calculation of additional places in kindergartens and schools;
- a possible restriction on the number of floors of the building (if the site is located in the protection zone of the architectural monument).

Therefore, although the site clearing option is most often used, due attention should be paid to the revitalization option, which is being actively implemented in European countries. Little by little, these approaches are beginning to be implemented in Ukraine as well. In particular, the load-bearing capital structures are preserved, and the appearance of the facades and layout are changed for office or public functions (retail, commercial and entertainment). Such examples in Kyiv include the former Motorcycle Factory, the I. Lipse factory, and the Bolshevik factory.

Against the background of the overwhelming majority of typical industrial objects, isolated historical factories in large cities of Ukraine acquire special value. One such example is the former Richert Brewery on Kyrylivska Street in Kyiv, which is in a state of disrepair. Experimental proposals regarding its possible repurposing were developed by one of the authors of the article, O. Ivashko.

The authors focused on one rather innovative direction of revitalization, namely on repurposing for an artistic function, which leads to the introduction of such a concept as an art cluster, when all participants in the process aim to produce a joint art product.

The period of emergence of the very term “art-cluster” was traced in accordance with artistic formations on the basis of revitalized industrial enterprises. It is noted that the idea of revitalization of unprofitable industrial enterprises arose in the 1940s in Manhattan under the name “loft”, and originally the term “loft” envisaged the repurposing of industrial enterprises specifically for the artistic function (housing and studios of artists), and its appearance was dictated by the sharp growth land prices in the central areas of the city. This led to the intensification of the process of moving industrial enterprises to the outskirts of the city, and the former industrial territories, where the cost of renting the premises of former workshops was low and opened up the possibility of using them for any function, with the possibility of changing them, were occupied by artists of various directions. In fact, these industrial enterprises have acquired the properties of highly adaptive buildings with the possibility of flexible repurposing.

Based on this, the authors concluded that at the heart of the art cluster is a loft in Manhattan, New York, which initiated the combination of artistic and business functions. Gradually, such an artistic formation was enriched with additional functions and premises, which provided for the presence of exhibition halls, theater performances, lecture halls, showrooms, but if we talk about the principle of clustering, then all these components should be aimed at achieving one common goal.

Unlike traditional museums or galleries, which are opened thanks to the state or owners, art creation based on clustering can initially be created thanks to the initiative of the participants themselves, who come together to create a common artistic product. At the same time, such formations can just as quickly turn into a regular rental. According to approximate data, 60% of art formations, which are created by initiative groups and do not have support from the city or business, cease to exist quite quickly, and the average time of existence of such spaces does not exceed even 7 – 10 years. A typical example should be called “Off Piotrkowska” in Lodz, located in several former historical industrial buildings, which from the beginning was conceived precisely as an art formation, and over time turned into a set of rented premises, the owners of which are constantly changing.

The authors studied the global experience of repurposing industrial enterprises for different functions. Special attention was paid to those objects that position themselves as art clusters, in order to determine whether there are signs of art and cluster in them. The specificity is that the object, which positions itself as an art creation, must have as an anchor the main artistic function itself, around which auxiliary and accompanying functions are grouped. A total of 23 revitalized industrial enterprises of various industries in different countries of the world were analyzed for compliance with the characteristics of the cluster and the presence of an artistic component, among which 14 are highlighted in this article.

The analyzed examples were grouped according to the profile of primary production.

The first group is food industry facilities.

The first analyzed example was the revitalized buildings of the former bakery “Anker Brotfabrik Wien”, Absbergasse, 27 in Vienna, where workshops, a gallery/exhibition space/museum, business space, food establishments, and an event area appeared after the revitalization measures. The art function is represented by music and visual arts, which form two cluster cores.

The second example is the buildings of the former factory for the production of marmalade and preserves “Fabrika Trzciny” (Mala Warszawa) in the city of Warsaw. The idea of revitalization originally consisted in creating here gallery and exhibition spaces, a museum, a theater, event spaces, educational spaces, and catering facilities. However, the object's unfavorable location and inconvenient transport accessibility led to its gradual decline in its original art function, which is clear evidence that urban planning localization and good transport accessibility play a decisive role in the profitability of such revitalized objects.

The third example is the revitalized former brewery “Lowenbraukunst” in the city of Zurich, which housed gallery and exhibition spaces, a museum, and there is also an event direction.

On the basis of the seed sorting factory at 1 Blahovishchenska Street in Kharkiv, a modern space “Fabrika.space” was opened with an event orientation, public catering establishments, business space, that is, there are neither signs of a cluster nor an artistic component here. This is the fourth example.

The study of the fifth example – the former complex of the Dolne Mlyny tobacco and cigar factory in the city of Cracow, at 10 Dolnych Młynów Street, which was carried out by O. Ivashko and Yu. Ivashko during the years 2019 – 2023, identified the problems associated with the processes of revitalization under the artistic direction. Initially, the idea of revitalization was to place workshops, the House of Fear, educational institutions, creative trade and food establishments here, but as of 2023, reconstruction and restoration activities are underway here with the demolition of some low-value buildings. Probably, after the completion of the works, the orientation of the complex will also be different.

The next group of analyzed industrial facilities are light industry enterprises.

The sixth example was the revitalized buildings of the former textile factory “Fabryka Sztuki” (Art Incubator) (Inkubator Sztuki / Kultury) (from the former cotton factory at Księży Młyn), 3 Księdza Biskupa Wincentego Tymienieckiego Street in Lodz, where a theater, event space, food (cafe), artistic incubator of creative industries, gallery and exhibition space. The artistic direction is the main one, but there is no sign of a cluster, as many different workshops and exhibition spaces are gathered under one roof, which are not connected to each other. It should be noted in passing that an art incubator is generally a separate type of artistic education, different from an actual art cluster, as it has a different direction: not the production and presentation of a joint art project by individual artists, but giving beginners the opportunity to develop their career and their own business on preferential terms (the model for the institution in Lodz was art incubators at the Yale Institute of Entrepreneurship, the StARTup incubator founded by Edinboro University, Pennsylvania, the high-tech incubator for small businesses at Burlington County College, the business incubator at University College Falmouth, the Center for Fashion Entrepreneurship at the University of London). The so-called “art incubators”, aimed mainly at graduates – designers, fashion designers and artists, are separately distinguished, as a rule, they are located either on the territory of specialized higher educational institutions, or not far from them (Brooklyn Art Incubator).

The seventh analyzed example is the public complex “OFF Piotrkowska” at 138/140 Piotrkowska Street in Lodz, which is located in the historical buildings of the former cotton fabric factory of Franciszek Ramysz.

O. Ivashko and Y. Ivashko studied this object over time, from 2017 to 2023, recording the dynamics of changes that took place there. Despite the fact that there are gallery and exhibition spaces, event spaces, creative and artistic trade

establishments, over the years the role of office premises and food establishments is constantly increasing. All participants work separately from each other.

The eighth example was the “Platforma” art factory at 1 Bilomorska Street in Kyiv, which was formed from the former Darnytskyi silk factory. After the revitalization, gallery and exhibition spaces, event spaces, a stage, educational spaces, workshops, office spaces, and catering establishments appeared here. Before the war, many youth events and festivals were held here, as visitors were attracted by the informal atmosphere of communication.

Although traditionally the most suitable for revitalization are light and food industry enterprises, there are also examples of revitalization of enterprises in other industries. The third group is enterprises of other branches of production.

The establishment on the basis of the former medical equipment factory “ReZavod” in Lviv, chosen as the ninth example for analysis, faced the traditional problems of gradually transforming the original idea of an art space into a regular rental. Originally, it was supposed to have a theater, gallery and exhibition spaces, art workshops, educational institutions, art trade, office premises and catering establishments. However, over time, the idea with the presence of an art component and signs of a cluster turned into a set of ordinary tenants, some of whom do not even have an artistic activity profile.

The tenth example for analysis is the complex of the former manganese factory in Berlin, which was revitalized under the name of “Kunst-Werke”. As a result of the repurposing measures, a modern public space with a gallery and exhibition function and the presence of workshops, a library, educational spaces, trade and catering establishments was created. In this case, we can talk about the presence of both an art component and certain cluster elements.

The eleventh example is the former paint factory in Stockholm, on the basis of which the modern creative institution “Färgfabriken” emerged. As in most of the examples mentioned above, gallery and exhibition spaces, event spaces, and public catering establishments appeared here. Despite the presence of an artistic component, the combination of participants does not take place on the basis of clustering.

Revitalization can also be applied to former power plants. Such a twelfth example is the creative institution “Kultuurikatel” in Tallinn, chosen as the eleventh example, where, after re-planning and reconstruction, modern gallery and exhibition spaces, event spaces, workshops, educational institutions emerged. Although this object positions itself as an art space and an art storeroom is indeed present in it, there are no signs of a cluster here.

A well-known example of the revitalization of the auto parts factory “Mains d’Oeuvres Saint-Quen” (Paris) (this is the thirteenth example), on the basis of which a theater, catering establishments, event orientation, gallery and exhibition spaces and

a museum, dance halls, educational space, music spaces, business space. However, despite the artistic trends, the participants act separately, so they cannot be called an art cluster.

There are well-known examples of revitalization not of individual objects or complexes, but of entire industrial districts. The fourteenth example is precisely the revitalization of a former industrial district in New York, on the basis of which the public space “Dumbo” was formed with modern gallery and exhibition spaces, event spaces, a museum, workshops, educational, trade, and catering facilities. Despite the presence of an art component, there are no signs of a cluster.

In general, the analysis of all 23 industrial objects proved that in those cases when some of them position themselves as art formations or even art clusters, the art component is expressed in the form of an exhibition function, an event orientation, and an educational function (in in the case of their art direction), rarely in the form of a theatrical, musical and dance function. In half of the cases, the art function is supplemented by additional and related functions, which often occupy a more important place than the art component – business function, trade and catering (cafés, restaurants, and breweries).

The following groups were identified among the analyzed list of objects that position themselves as creative entities:

1) an art formation with the presence of an art component, but without signs of a cluster (“OFF Piotrkowska” in Lodz, “Mala Warszawa” in Warsaw, “Platforma” Art Factory in Kyiv, “Dumbo” in New York);

2) art formations with the presence of an art component, separate internal connections between exhibitors, but without signs of a cluster (“Kultuurikatel” in Tallinn, “Färgfabriken” in Stockholm);

3) art formations with the presence of an art component and the seeds of a cluster (“Anker Brotfabrik Wien” in Vienna, “Fabryka sztuki” in Lodz, “ReZavod” in Lviv, “Kunst-Werke” in Berlin).

In some of the analyzed objects, there are no signs of either an art component or signs of a cluster (“217 Piotrkowska” in Lodz, “Dolne Mlyny” in Cracow). As a result of the analysis, objects (Center of Contemporary Art, Cracow, 4 Lipowa Street, and Malopolski ogród sztuki, Cracow, 12 Rajska Street, Nadszaniec, Zamosc, 2 Waleriana Łukasińskiego Street) were rejected as non-compliant selection criteria for solving the tasks set in the research.

In some analyzed examples of revitalized industrial buildings and complexes, there are some initial signs of clusters, but there is no object or complex that would function as a full-fledged art cluster with an anchor art function and functional connections based on the principles of clustering, which indicates that that the defining features of this phenomenon have not yet been formulated and implemented.

Since there is a rapid growth of revitalized institutions that call themselves “art clusters”, this proves the need for a theoretical justification of this term.

Despite the fact that the creation of an art formation based on clustering rather than ordinary rent creates noticeable difficulties, this approach has the right to life and meets the needs of young people in particular. As an example of the fact that young people are looking for new, non-traditional ways of self-expression, including in art, it is worth mentioning the creative object “Szimpla” in Budapest, researched by Y. Ivashko and O. Ivashko, where the structure of the institution includes: event-space, bars and cafes, showrooms, exhibition spaces and shops. When repurposing a destroyed pre-revolutionary building into a trash youth entertainment facility, the architects laid the basis of the design for the aesthetics of what in principle cannot be aesthetic, and today this object is one of the most famous and visited in Budapest, it is visited by many tourists and local residents. because it is original precisely because of its undisguised outrageousness, which starts from the entrance, near which old rusty bicycles are parked. The atmosphere of the establishment contributes to the creation of an impression of relaxed friendly communication without restrictions, which is impossible in a traditional restaurant or coffee shop, and this led to its considerable popularity and the opening of several more similar establishments in Budapest, although not as famous.

In the process of researching the experience of art-oriented revitalization in different countries, O. Ivashko summarized which industries are the easiest to revitalize and argued that these are primarily light and food industry enterprises. He developed theoretical models of art formations and calculated the areas required for their functioning. The results were shown on the example of three experimental projects of repurposing historical industrial enterprises – a light industry factory in Lodz, a former shipyard in Zurich and the Richert brewery in Kyiv. Three objects of approximately the same time period and similar architectural style were selected.

The calculation of the necessary measures for repurposing the building of the light industry factory in Lodz proved that the long and narrow low-rise brick building is well suited for an educational function, but it would be quite difficult to turn it into an art creation, since it would require the addition of additional volumes of a significant area under auditorium and production premises.

In the case of the former shipyard in Zurich, the revitalization under the art direction actually already took place, and O. Ivashko experimentally checked the conformity of the set of premises and their areas for the “Shiffbau” theater to the developed theoretical models. As a result, he established that the number of rooms and their areas correspond to the calculations that were obtained in accordance with the specialization and functional needs of the object, however, discrepancies were

recorded in the dimensions of the auditorium and in the twice larger area of the production premises.

Of these three objects, two – the factory in Lodz and the shipyard in Zurich – have already been repurposed, in the case of the factory, these proposals are a miscalculation of the option of another direction of revitalization (now it is the educational building of the Lodz Polytechnic), in the case of the shipyard, where the “Shiffbau” theater is located this is a check of the compliance of the existing area and the list of premises with the developed theoretical models, in the case of the Richert Brewery, it is a purely new project, since the building is not currently in use.

Another problem was solved in relation to the former Richert brewery in Kyiv. In the experimental project of O. Ivashko, it was proposed to functionally distribute the volumes in such a way as to place administrative premises and small shops in the historical part with a fine-grained structure, to complete the sides and back of the historical building with modern volumes with an auditorium, an exhibition hall, and to create on the basis of this object, a spectacular art formation with a production area (art cluster) and an audience area (art center), actively using such modern methods of aestheticization as street art and muralism.

This approach is based on the awareness of the term art cluster as a modern space for the production of a certain product of spiritual production, which is determined by the specifics of its development and functioning, namely, on the connection with the second component that ensures the successful functioning of art creation – with the art center, which aimed at the public presentation and popularization of the product of spiritual production created in the art cluster, i.e. a specific work of art, be it a performance, an exhibition, etc. On the basis of analyzed existing experience, created theoretical models and checked their correctness on three specific examples of experimental design, O. Ivashko investigated two main types of such art creations – spectacular, more complex, and pictorial.

Conclusions. The study proved that the topic of revitalization of territories (both mass housing development and industrial enterprises of the second half of the 20th century) is gaining more and more relevance, primarily in the largest and most important cities of Ukraine, which is due to a number of reasons:

- lack of urban areas due to sharp population growth;
- the need to remove harmful industries from cities;
- changing needs and aesthetic preferences, especially of young people.

Common means of revitalization of the mass-built areas of the 1950s – 1980s are the arrangement of additional parking lots for cars (with the impossibility of cars entering green areas, playgrounds for various purposes – children’s, sports, for adults’ recreation, etc.); arrangement of modern children’s and sports grounds (including at the expense of former lawns, which ended up under the crowns of overgrown trees,

and where practically no grass grows); saturation of areas of mass residential development with public service institutions, including due to the repurposing of apartments located on the first floors; selective densification of residential buildings due to the construction of mainly point-block housing.

If we talk about industrial areas, the most common methods of revitalization here are primarily repurposing for commercial and office functions. The authors focused on an innovative option of repurposing, which is quite new for Ukraine, but has certain prospects, which is the repurposing of a former industrial enterprise into an art formation based on clustering.

Today, a significant number of revitalized institutions position themselves as art clusters, since they have some workshops or an exhibition hall. At the same time, an ordinary collection of tenants engaged in certain types of artistic activities is not yet an art cluster, since an art cluster is an area of art product production as part of an art formation, which is logically connected to an art center – an area of public presentation of the produced art product.

O. Ivashko developed functional models for art formations of a spectacular and visual direction and allocated zones of the audience complex, demonstration complex, production complex and administrative complex in them. He also singled out three principles for the organization of art creation: the principle of object orientation, the principle of standardization of design solutions, and the principle of preservation and adaptation.

Thus, the defining characteristics of an art cluster are formulated: an art cluster is a form of territorial organization of a completed cycle, an area of art product creation by individual participants (art objects) acting together. Simple art clusters (visual) and complex (spectacular) are distinguished. An art center is a space where a created artistic product is presented publicly. Together, the art cluster and art centers create art formations.

In the art formation, the main (anchor) function or several functions directly related to art are distinguished, accompanying functions that provide support for the main functions, and additional functions that are easily replaceable and optional and are aimed at increasing the comfort of visitors by expanding list of services.

A list of the main factors that determine the conditions and effectiveness of the placement of art formations with art clusters in their composition on the basis of industrial facilities in the functional planning and transport planning structures of urban planning systems is formulated. This is a location in a large city, in the central areas, with the possibility of good transport and pedestrian accessibility, close to highways, with the possibility of parking, mainly in a compact medium-rise building with buildings less than 100 m long and limited (up to 5 m) height of the premises, not on the base harmful industries, possibly on a site with a courtyard. On the basis of

the analysis of the effectiveness of art formations on the basis of revitalized industrial enterprises, it has been proven that precisely urban factors are decisive for the effectiveness of their functioning.

O. Ivashko developed theoretical models of the transformation of an object into an art creation with an art cluster as a production part, with verification of these proposals by means of experimental design. It has been proven that for the effective functioning of an art cluster, precisely as a cluster with the possibility of obtaining the maximum economic effect, it is not enough to simply give these premises to various artists, one should approach the process of solving the art space precisely from the standpoint of clustering. On the basis of the created theoretical models of art formations and the calculation of the necessary components and areas, it is possible to carry out a projected assessment of existing funds in accordance with the possibility of organizing an art formation and predict what exactly can be organized – an art object, an art cluster, an art center or a full-fledged art formation with a combination of an art cluster as a production zone and an art center as a representative zone.

Based on the creation of experimental design proposals, the possibility of setting up a spectacular art formation with an art product production area based on the clustering of the building of the Lodz textile factory, the shipyard in Zurich and the former brewery in Podil in Kyiv was proven.

Prospective areas of research are summarized as follows.

It is necessary to develop methods and criteria for evaluating territories in the structure of cities for a specific function of revitalization, methods for evaluating the conditions of placing art formations in the architectural and planning structure of cities as elements of gentrification of the urban environment and increasing the attractiveness of the areas where they are located, to deepen the development of functions, to develop standards and methodological support for specialized art clusters. A separate aspect is related to the development of modern methods of aestheticizing spaces by means of street art and murals.

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РЕВІТАЛІЗАЦІЯ МІСЬКИХ ТЕРИТОРІЙ В СВІТЛІ СОЦІАЛЬНИХ І ЕКОЛОГІЧНИХ ПРОБЛЕМ

Стаття присвячена проблемам ревіталізації територій великих міст України і аналізу закордонного досвіду (передусім польського), який може бути використаний. Автори акцентують увагу на таких проблемах: ревіталізація територій колишніх промислових підприємств, позитивні моменти таких заходів для вирішення соціальних проблем і екології міст, аналіз територій масової забудови 1960-х років з точки зору проблем, що виникають, і оцінка якості проживання в них по різних показниках. В якості такої проаналізованої ділянки взято Першотравневий масив в Києві. Мета дослідження полягає в тому, аби проаналізувати аспект ревіталізації міських територій в світлі соціальних і екологічних проблем, існуючий досвід і надати певні теоретичні пропозиції на основі проведених натурних обстежень промислових територій і житлових масивів.

Значну увагу в статті приділено ревіталізації територій колишніх промислових підприємств, які не використовуються за первісною функцією. Автори розглядають весь спектр можливих варіантів їх використання. Від розчистки ділянки зі зведенням на ній нових будівель Найбільш поширеним варіантом на сьогодні є варіант, коли власник викупає ділянку з промисловими об'єктами, зносить їх і забудовує новими об'єктами. Проте автори

зосереджують увагу на ревіталізації промислових територій – підходу, поширеному в Європі, що поступово набуває популярності й в Україні. Автори дослідили світовий досвід перепрофілювання промислових підприємств під різні функції, зосередившись на новаторському варіанті перепрофілювання, який є досить новим для України, однак має певні перспективи, – це перепрофілювання колишнього промислового підприємства під арт-утворення на засадах кластеризації. На основі створення експериментальних проектних пропозицій було доведено можливість влаштування видовищного арт-утворення з виробничою зоною арт-продукту на основі кластеризації корпусу лодзької текстильної фабрики, кораблебудівного заводу в Цюриху і колишньої броварні на Подолі в Києві. Розроблено практичні рекомендації з створення арт-утворень на основі функціональних схем зв'язків між складовими елементами, планувальних схем, сучасних напрямків естетизації фасадів і дизайну інтер'єрів.

Ключові слова: міські території, проблеми ревіталізації, соціальні і екологічні проблеми, озеленення, інфраструктура

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