

OLEKSANDR IVASHKO¹

PRINCIPLES AND METHODS OF ARCHITECTURAL AND PLANNING ORGANIZATION OF ART-CLUSTERS

ZASADY I METODY ARCHITEKTONICZNEJ I URBANISTYCZNEJ ORGANIZACJI KLASTRÓW ARTYSTYCZNYCH

Abstract

The relevance of the theme is determined by the need of the revitalization of unprofitable industrial enterprises for new functions and the development of recommendations for the creation of new types of art establishments.

The main tasks are: 1) to create models of art-clusters for different arts and to analyze these models of objects recognized as art-clusters; 2) to develop an art-cluster model by applying optimal functional-spatial relationships between constituents and determine the main principles and methods of architectural and planning organization of art-clusters. Scientific (academic) novelty: – the content of the terms “cluster”, “art” and “art-cluster” and existing contradictions in terminology has been analyzed for the first time – for the first time an art cluster model has been developed by application optimal functional-spatial relationships between constituents and the basic principles and methods of architectural and planning are determined organization of art-clusters.

Keywords: art-cluster, revitalization, factories, new multi-function object

Streszczenie

Aktualność tematu jest uwarunkowana przez konieczność aktywizacji nowych zbytkownych przedsiębiorstw przemysłowych oraz opracowanie zaleceń w zakresie tworzenia nowych odmian placówek artystycznych.

Podstawowymi zadaniami są: 1) tworzenie modelu klastrów artystycznych dla różnych sztuk i do przeanalizowania tych modeli obiektów, określonych jako klaster artystyczny; 2) opracowanie klastra artystycznego modelu poprzez stosowanie optymalnych więzi funkcyjno-przestrzennych między składnikami i określenie podstawowych zasad i metod architektonicznego i objętego przez planowanie zorganizowania klastrów artystycznych. Nowość naukowa (akademicka): – po raz pierwszy została przeanalizowana treść określeń „klaster”, „sztuka” i „klaster artystyczny” oraz istniejące przeciwieństwa w terminologii, – po raz pierwszy został opracowany model klastrów artystycznych o optymalnych funkcyjno-przestrzennych stosunkach między składnikami oraz określono podstawowe zasady i metody architektonicznego i objętego przez planowanie projektowania w zakresie zorganizowania klastrów artystycznych.

Słowa kluczowe: klaster artystyczny, aktywizacja, fabryki, nowy obiekt wielofunkcyjny

¹ M.Sc. Arch. Oleksandr Ivashko, a post-graduate student, Kyiv National University of Construction and Architecture; ORCID 0000-0002-9194-2153

1. INTRODUCTION

Today, in many countries of the world, the phenomenon of space formation which has been called the art cluster has emerged and continues to evolve². However, a detailed analysis of the principles of the organization of objects, called in the literature as art cluster, proves that they often do not fit the concept of an art cluster and is a simple combination of independent rented premises. Moreover, despite the widespread use of the name “art cluster” in various sources, there is still no clear definition of the semantic content of this term relative to the word “art” and “cluster”.

However, new facts of life inspire the appearance of precisely these art objects, taking into account the development of new (including nonformal) art movements, the need for new forms of job and the artists’ self-expression, especially since traditional art institutions (museum, theatre, cinema, circus, gallery) no longer meet all the demands of society (Ill. 1).

For the said purpose, it was decided to analyze the content of the term with respect to its first and second parts and to formulate the defining features of the art cluster. One can formulate the features of an art cluster only after determining the content of the terms “art” and “cluster”. It is necessary to find out whether the art cluster is worth any item. The scientific novelty of such a study lies precisely in the definition and formalized presentation of an art cluster, its assessment as a phenomenon from a positive or negative point of view, and to analyze existing objects with an artistic function, traditionally referred to as art clusters.

2. ANALYSIS OF THE TERM “ART CLUSTER”

2.1. THE MEANING OF THE TERM “CLUSTER” IN VARIOUS SPHERES

A new phenomenon always requires the accurate determination of its nature and meaningful content; according to the scheme “the phenomenon – its definition”. Over the past decade, a fundamentally new type of public institution called “art cluster” has emerged in different countries of the world; but at the same time it is possible to use another name for such institutions – “a creative space”, which is a synonym to “art cluster”, though it is a broader concept. So, according to explanatory dictionaries, a term cluster (eng. Cluster – congestion, racemation, aggregation, swarm) means the union of several similar elements, which can be considered as an independent unit, which has particular properties. There is a notion of “economic cluster” that provides for the structure of enterprises that are united by common material, financial and information issues; but the economic cluster does not function as a legal entity and its structure does not provide for the unification of all participants by joint agreement. The definition of a cluster was given by Michael Porter, who considered a cluster to be a group of geographically neighbouring interconnected companies (suppliers, manufac-

² Antonova, A.A. *Art clusters as a space for the development of the cultural potential of the city // In the world of science and art: questions of philology, art history and cultural studies: collection of articles.* Proceedings of the XLVII Intern. Research and Practical Conf. No. 4 (47). – Novosibirsk: Sibak, 2015 <https://sibac.info/conf/philolog/xlvii/41733>

turers, etc.) and related organizations (state administration bodies, infrastructure companies, educational establishments) that compliment each other and the activity of which is concentrated in a particular field.



Ill. 1. “OFF Piotrkowska” (Lodz). Photo by O. Ivashko

During conducting research, Porter analyzed the competitiveness of more than one hundred industries in ten countries of the world and proved that the most competitive transnational companies are most often located not in different countries, but concentrated in one country, or even in one region. Porter explained it by the fact that a successful one or several firms spread over time their influence on their closest associates, namely on suppliers, consumers and competitors. In the course of time, it leads to the formation of an economic cluster – a community of companies representing closely interrelated branches and their cooperation contributes to the economic effect of all participants. Thus, economic clusters take on the role of points of growth of the domestic market, one cluster gives rise to others, and altogether it increases the competitive ability of the country as a whole.

The concept of “cluster” is not only in economics but also in urban planning, mathematics, astronomy, education, music, chemistry, information technology, etc. Urban cluster means a territorial entity within a metropolis, a relatively autonomous unit that provides residents with a full range of functions such as residential, administrative, business, shopping and entertainment, and recreational. Mathematical cluster means the class of related elements of the statistical population. A star cluster in astronomy means a constellation of stars connected by gravitation. A music cluster means a lot of sounds, which either completely fill the acoustic space or lead to the formation of noise. While playing the piano, the music cluster is formed by the onslaught of a fist, palm or elbow on the claviature. A chemical cluster means a complex union (group) of several atoms or molecules that stand out from other similar molecules and combine into a static solitary formation. The educational cluster assumes a system of interconnected educational institutions, educational organizations, industrial, business structures, public and other organizations, the importance of which as a whole exceeds the significance and

effectiveness of individual components. A cluster in information technology means a group of computers that are connected by high-speed communication channels and consequently turn into a single hardware resource.

Thus, the meaningful content of the term “cluster” depends on the field of activity, and then on the area of its application, however, it always assumes the existence of interconnections between similar interacting components, which form a single cluster structure. Consequently, the concept of an art cluster implies that all parts with an art direction are interconnected and the total cumulative effect of their joint activity is several times higher than the effect of particular elements.. Thus, the first defining feature of an art cluster as specific art creation that it is not just an accidental set of tenants-carriers of particular types of art activity but the existence of tenants or owners who work for one result and their activities are interconnected. So, the first reason for the unprofitability of monuments of industrial architecture restructured for the artistic function is non-observance of the principles of formation and successful functioning of the cluster.

2.2. MEANINGFUL CONTENT OF THE TERM “ART” IN COMBINATION “ART CLUSTER”

Art is an abstract concept that acts as a form of social consciousness and is a particular activity that is aimed to reflect reality in actual emotional images at the same time as masterful sophistication in a specific sphere of activity. At the same time, according to V. P. Shestakov, V. Ye. Kemerov and O.M. Kukrak³, art is a type of human activity aimed at creating figurative and symbolic structures that carry aesthetic, cognitive and communication functions. The attitude to the fact of the existence of art as such was not uniform, it was believed that a “work of art” could not be clearly defined, and Maurice Weitz argued that being a work of art is not a necessary condition for the existence of a work of art⁴.

Historical theories of art affirm the direct interdependence between the process of identifying the phenomenon as art and actual works of art, which in this case play the role of a specific model or pattern. In its turn, this dependence on the sample leads to the issue of where such a need for comparison with the already existing and recognized in society arose because, in essence, it means the following: any phenomenon is art if it is historically correlated with previous works and earlier art forms.

The key question at all times was “What is art?” According to the theory of art of A. Gabrichevskiy (the 1920s), spatial art has an element of repeatability through the consolidation of the mental act, and the work of art itself is an optimal synthesis of mental and physical, spiritual and material, temporary and spatial, individual and supra-personal, accidental and necessary, as the result of which it is created other, non-spatial and non-temporal⁵. According to some theorists of art, all attempts to explicitly define the notion of the term art are futile, and they opposed the anti-essential theory of art to these attempts⁶.

³ Shestakov, V.P., Kemerov, V.E., & Kukrak ,O.N. *Art. The centre of humanistic technology*, 2019 Access mode <https://gtmarket.ru/concepts/7065>

⁴ Weitz, M. *The Role of Theory in Aesthetics*. Journal of Aesthetics and Art Criticism. Vol. 15, 1956 pp. 27–35.

⁵ Prokofiev, V.N. *About art and art history*. M., 1985. p. 161.

⁶ Weitz, M. *op. cit.*

His scientific contribution to the theory of art was made by The professor of Illinois University of Technology George Dickie made his scientific contribution to the theory of art; in 1969 in the article “Defining Art” for the first time he outlined the basis of the well-known nowadays institutional theory of art; in the following publications in 1974 and 1984, he corrected this theory as antithesis of anti-essentialism with its principled refusal from any definitions in the art, and basis of knowledge, and comprehension of the nature of art according to the theory of “related resemblance” of Ludwig Wittgenstein. George Dickie believed that to answer these simultaneously philosophical and cultural questions it was necessary first of all to abandon the object and functional features of works of art; he stated that in the mid-twentieth century, art turned into the phenomenon like science, politics and business, and therefore we should not assess works of art in terms of aesthetic features or the specificity of aesthetic and artistic perception, but it is necessary to provide the art institute to confer the status of art itself, according to pattern as the conferment of an academic honour or social status takes place. Dicky identified only two criteria for recognizing works as works of art — to be artefacts and to be selected by experts from the Institute of Arts in the list of works of art from among the candidate works to be called works of art⁷.

In 2010, the British scientific journal “The British Journal of Aesthetics Advance Access” published a scientific article by Francis Longworth and Andrea Scarantino “The Disjunctive Theory of Art: The Cluster Account Reformulated” devoted to the theories of the definition of art, ranging from classical to alternative (Disjunctive Theory of Art). And it is here that we approach the relationship between the term art and the cluster, as was said at the beginning, that is, contemporary artists have formulated their model of the most effective functioning of art education according to the clustering principle, that is, the presence of interconnections and territorial proximity.

Berys Gaut for the first time said about the theory of art from the point of view of the cluster in the publication “Art as a Cluster Concept”. Based on the general theory of the cluster and transferring these attributes to art creations, several art components in combination create art, but each of them individually cannot be considered as art and is not necessary, but they are sufficient in their particular combination. Gaut introduced the theory of art like a cluster of a mathematical model: for the creation of a particular effectively operating art concept C from a certain number of components $\{P, Q \dots Z\}$, 4 requirements must be fulfilled:

- G1. $\{P, Q \dots Z\}$ should be sufficient for C;
- G2. Some proper subsets $\{P, Q \dots Z\}$ are self-sufficient;
- G3. None of the members $\{P, Q \dots Z\}$ is necessary;
- G4. At least one of the members $\{P, Q \dots Z\}$ must be selected.

10 features are required $\{P, Q \dots Z\}$:

1. They must have positive aesthetic qualities (the author clarifies that he means beauty and its manifestations and subspecies).
2. They must be expressions of emotions.
3. They must be intellectually complex.
4. They must be formally composed and indivisible.
5. They must have the ability to express complex content.
6. They must show an individual point of view.
7. They must exercise creative imagination.

⁷ Migunov, A., & Khrenov, N. S. *Aesthetics and Theory of Art of the 20th Century* [Reader]. M. 2008.

8. They must be the subject of material culture or performance, that is the product of a high degree of skill.
9. They must belong to a recognized art form.
10. They must be the result of the intention to create a work of art.

In its turn, if there are 10 different features and none of them is individually necessary, then there are 10 subsets of 9 elements, including all but 1 features, that are sufficient to apply the concept. And according to G1, all 10 features are also sufficient, therefore there are at least 11 more subsets with which the object can be considered as a work of art and lots of sufficient potential subsets with less than 9 elements.

Thus, the art cluster should have two types of links – functional and spatial. It is crucial for art clusters to obtain functional and technological communication, a synergy effect when a new quality appears as a result of an interaction.

Separately, one should pay attention to the publications devoted to the objects in which the artistic function and business function were combined. In particular, we should name the works of Antonova, A.A.⁸, Glazychev, V., Makarova, K.⁹, Martynova, M.¹⁰, Tykulov, D., Fedotova, N., as well as materials of electronic resources.

2.3. ART, ARCHITECTURE AND SPECTACULAR BUILDINGS AS OBJECTS OF SPIRITUAL PRODUCTION

In order to create an optimal model of an art cluster, it should be emphasized that the result of its functioning is aesthetic, or spiritual production (as opposed to material production). Zangwill Nick defined his theory of art as aesthetic production as the “art of the producer”¹¹ and as a theory that relies on the artist, in its turn, it allowed him to distinguish three phases of the creation of a work of art: first, the understanding of realization of aesthetic features through some non-aesthetic features; secondly, the intention to implement aesthetic features in non-aesthetic features, as provided for in the understanding; and thirdly, more or less successful implementation of aesthetic features in unaesthetic features according to the understanding and intent. According to his theory, understanding and awareness play a role of the reason in the implementation of actions to create a work of art, and it is enough to embody certain aesthetic feature. In contemporary art literature, there are certain schemes and systems of art classification, although they are relativistic. The most frequently art is divided into three groups:

1. spatial or plastic kind of art (visual art, decorative and applied art, architecture, photography), which are characterized by spatial construction for maximum exposure of the artistic vision;

⁸ Antonova, A.A. *op. cit.*

⁹ Makarova, K. *Post-industrialism, gentrification and transformation of the urban space of modern Moscow*. Neprikosnovennyi Zapas, 2010. pp. 150–152.

¹⁰ Martynova, M. *Subjective assessment of the feasibility of basic values in an urban environment and its relationship with the personal potential of university students*. Young Scientist. No.12. 2013. pp. 809–814.

¹¹ Zangwill, Nick. *Aesthetic Creation*. Oxford University Press, 2007. p. 167.

2. temporary or dynamic types of art (music, literature), which are characterized by the composition developed in time;
3. space-time arts (choreography, literature, theatrical art, cinema), which are called synthetic or spectacular.

There is another classification of arts:

1. fundamental: spatial (figurative – sculpture, painting, graphics and tectonic – architecture, environmental design) and temporary (music, literature)
2. synthetic: Spatio-temporal (entertainment-gaming – cinema, circus, pop, ballet, theatre) and technical – design, television, light-music, photography).

However, considering the arts from the point of view of their existence and interaction in the art cluster environment, we can distinguish a slightly different classification. In general, clusters can be divided into simple – those that consist of a fairly simple combination of a small number of kinds of art or several varieties of one type, and complex clusters that represent the synthesis of arts (Ill. 2). The most frequently in simple clusters there are the following types of arts and their combinations: visual, musical, fictional and choreography. Complex clusters, which are the synthesis of many arts, can be split into artistic architecture and spectacular types (such as theatre, cinema, and others).



Ill. 2. “Brotfabrik Wien” (Vienna). Photo by O. Ivashko

So, there are different types of art, and each of these types can be developed both independently within oneself and in combination with other types of art, mutually enriching each other. This is how intraspecific and interspecific relations are formed. Popularly, the process of transforming art into an art cluster can be illustrated as follows: if an artist has just painted a picture and hung it in a gallery, this is a simple action; but if he added this action with music or dances, this leads to complication of the action and creation of a fundamentally different approach and another interaction with the viewer. If from these points we would analyze the

existing types of institutions that fall under the definition as art clusters, then a typical example is the Opera and Ballet Theater, where several types of arts are interrelated: opera, ballet, music, architecture, visual arts, and they all work for a common result – spectacular action, the creation of the play.

3. CONCLUSION

In the process of creating a work of art (art), the principles of clustering act as a way of organizing production processes, allowing you to specialize and structure individual creative (production) activity processes that are aimed at synthesizing various types of art. Combining the concepts of cluster and art, at the end of the twentieth century – at the beginning of the twenty-first a fundamentally new phenomenon arises, an art cluster. Based on the combination of the two terms and the use of the specificity of the objects, the concept of an art cluster can be briefly defined as follows: an art cluster is a multifunctional building with a combination of cultural and business trends, designed for transformation in accordance with changing needs, a modern communicative space based on creative expression, which consists of many different functions that have stable links and actively interact with each other, the total effect of the interaction of which significantly exceeds the effect of their interaction independently from each other. The effect of their interaction is separate from each other. Art clusters are a positive thing. In the process of creating a work of art (art), the principles of clustering become a way of organizing spiritual production, the process allows you to specialize and structure individual creative (production) processes, the activities of which are aimed at the synthesis of various types of arts. In the production process of an architectural object, in addition to creating an architectural image in the architect's studio, both construction organizations and artists are involved in the implementation.

Art clusters quickly occupy the niches of houses and public institutions of the old type and combine creative hubs for creative self-expression, workplaces and event spaces. Such traditional institutions as cinemas, theatres, houses of culture, houses of creativity, schoolchildren's palaces are often perceived as outdated, do not fully meet all modern needs for creative and cultural development, whereas modern people, especially young ones, seek above all favourable conditions for self-expression development of their inner world by the means that everyone has the opportunity to choose on their own.

At the same time, despite the extensive use of the term “art cluster”, not all revitalized objects with art functions are art clusters: it is possible only when all the art parts are interrelated, work for one corporate result and enhance each other's effectiveness. In the analyzed objects there is an artistic function (art), but there is no conscious interaction between the various artistic components and the process of such education becomes uncontrollable, therefore it is ineffective with time. So, the analyzed objects are not art clusters but only art structures (art) with no cluster signs. The main mistake is that any example starts to be called an art cluster if at least one artistic component is present in the object, forgetting about the word “cluster”.

The principal functions of an art cluster are the following: the art function (workshop), related functions that supplement the main functions (galleries, exhibitions), and auxiliary functions that are not in contrast to the principal and related functions and can functionally be combined with them (coffee houses, breweries). The following links between the functional areas of the art

cluster are possible: workshop-exhibitions and galleries-sales-popularization and involvement of the general public.

If we analyze the possibility of establishing an art space on the principle of clusterization, then it is possible to create simple and composite clusters. Examples of simple art clusters can be demonstrated on the base of particular kinds of art – fine art, music, fiction and choreography. Composite clusters have a more intricate interaction structure; these include artistic architecture (as art) and spectacular views (such as theatre, cinema, and other kinds of art).

Issues of development and optimal organization of art clusters are relevant, taking into account the changing cultural needs in contemporary society. The result of the study should be a model of an optimal art cluster by applying optimal functional and spatial connections between the components and determine the basic principles and methods of the architectural planning organization of art clusters, and later on, creating models of art clusters for various types of arts. These findings can be used to repurpose existing industrial enterprises under the art function.

The name art cluster is most often used for revitalizing unprofitable industrial enterprises, which for one reason or another are not subject to demolition in order to clear a site for new construction (as a rule, these are industrial architecture monuments)^{12, 13, 14}. It is precisely because of the incorrect formulation of the defining features of an art cluster as a contemporary type of multifunctional building in an urban environment designed for the gentrification of surrounding urban areas, and a lack of understanding of the principles of effective functioning of art clusters. Over time, such revitalization boils down to the usual rental of premises and, finally, to the economic unprofitability of such establishments and the replacement of the function with residential or business. For several years, the author observed several Polish revitalizing industrial architecture objects in Krakow, Lodz, Warsaw, and noticed a common trend: the artistic function, not supported by the interrelations of the components, is gradually fading away. Examples of such processes are noticeable in such objects as Dolny Mlyny in Krakow, Galeria OFF Piotrkowska in Lodz, Fabryka Tszczyzny in Warsaw, etc. Objects become unprofitable as art objects not because an art cluster is not eligible on existence, but because the basic principles of its formation as a cluster are violated.

Based on the analysis of the existing experience of revitalization of industrial enterprises in various countries of the world, it was proved that the most suitable are enterprises of light and food industry, although consumer services establishments¹⁵ and trade and storage buildings¹⁶. The expediency of revitalizing enterprises under new functions and the possibility of applying the system-structural analysis method to create models of art clusters was raised in the works of M. Dyomin, Yu. Ivashko and M. Orlenko.

¹² Antonova, A.A. *op. cit.*

¹³ Makarova, K. *op. cit.* pp. 150–152.

¹⁴ Martynova, M. *op. cit.* pp. 809–814.

¹⁵ Antonova, A.A. *op. cit.* pp. 512–525.

¹⁶ *Ibidem*, pp. 526–547.

References

- [1] Antonova, A.A. *Art clusters as a space for the development of the cultural potential of the city // In the world of science and art: questions of philology, art history and cultural studies: collection of articles*. Proceedings of the XLVII Intern. Research and Practical Conf. No. 4 (47). – Novosibirsk: Sibak, 2015 <https://sibac.info/conf/philolog/xlvii/41733>
- [2] Ivashko, Yu. V. *The Fundamentals of Formation of the Art Nouveau Style in Ukraine (the end of the nineteenth and the beginning of the twentieth century)*. A Thesis for a Doctor of Architecture degree (PhD thesis). Kyiv National University of Construction and Architecture, Kyiv, 2013.
- [3] Makarova, K. *Post-industrialism, gentrification and transformation of the urban space of modern Moscow*. *Neprikosnovennyi Zapas*, 2010. – pp. 150–152.
- [4] Martynova, M. *Subjective assessment of the feasibility of basic values in an urban environment and its relationship with the personal potential of university students*. *Young Scientist*. No.12. 2013. pp. 809–814.
- [5] Migunov, A., & Khrenov, N. S. *Aesthetics and Theory of Art of the 20th Century [Reader]*. M. 2008.
- [6] Orlenko, M.I. *Issues and methods of restoration of architectural monuments in Ukraine (11th century – the early 20th century)*. A thesis for a Doctor of Architecture degree (Ph.D. thesis). Specialty 18.00.01 Theory of Architecture, Restoration of Monuments of Architecture. – Kyiv National University of Construction and Architecture, Kyiv, 2018.
- [7] Prokofiev, V.N. *About art and art history*. M., 1985. p. 161.
- [8] Tykulov, D. *Factories are transformed into art clusters*. // [Electronic resource] – Access mode. – URL: <http://www.irm.ru/articles/31677.html> (appeal date: 03/01/2015).
- [9] Fedotova, N. *Creative Cluster in the Context of Socio-Cultural Problems of the Region // All-Russian Scientific and Practical Conference “Socio-Cultural Space of Modern Russia: Challenges of the XXI Century”*: Materials of the scientific conference. April 30, 2013 // Book House “Librokom”. – 2013. – pp. 59–68.
- [10] Fedotova, N. *Vectors of Regional Cultural Policy in the Sphere of Capitalization of Culture // Works of the St. Petersburg State University of Culture and Arts*. – Volume 199. – 2013. – pp. 17–33.
- [11] Shestakov, V.P., Kemerov, V.E., & Kukrak, O.N. Art. *The centre of humanistic technology*. 2019 Access mode <https://gtmarket.ru/concepts/7065>
- [12] Weitz, Morris. *The Role of Theory in Aesthetics*. *Journal of Aesthetics and Art Criticism*. Vol. 15, 1956 pp. 27–35.
- [13] Zangwill, Nick. *Aesthetic Creation*. Oxford University Press, 2007.

Author's note:

Master of architecture, graduate student of the Kiev National University of Construction and Architecture, artist, designer. Was born in 1995 in Kyiv. The author of realized projects of monumental and decorative compositions on the facades and interiors of buildings. Field of Interest: modern architecture, design, monumental painting.