

Classifications of “second-tier” cities in the context of creative reindustrialisation

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Abstract. The formation of a creative economy in Russia, which is becoming a trigger for the economic transformation of “second-tier cities” into integrated creative spaces, requires revision of the existing theoretical and methodological approaches to the classification of creative cities. The purpose of the research is to analyze the existing typologies for creative cities in terms of the appropriateness of their use for the formation of a classification of second-tier cities engaged in reindustrialisation. The content analysis of foreign and national scholarly literature on creative cities enabled the authors, first, to systematise the existing typologies for creative cities, and second, to propose an original classification in accordance with the criterion of a possible implementation of the selected pool in the typology of Russian second-tier cities. The authors set the directions for further research towards the formation of a classification of second-tier cities based on the concepts of a creative city, creative cluster, and second-tier cities involved in the process of creative reindustrialisation aimed at subsequent practical application.

Key words: Creative city; Creative cluster; Second-tier cities; Creative industries.

1 Introduction

Cities are increasingly viewed as the main driver of regional and economic development. At the same time, the modern driver of urban economic development is represented by creative industries [1]. The influence of creative industries on the urban economy implies interconnection between the main actors and their interaction in the development of creative potential and innovations in all sectors of the economy, the attraction of skilled labour, and investment in creative-oriented sectors of the economy [2]. Thus, under the influence of the creative economy, cities acquire a different appearance and become more attractive for living.

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Particularly great prospects for the development of a creative economy are opened through second-tier cities. There is currently no consensus in scholarly literature on the definition of this category of cities. In these terms, a distinction should be made between “second-tier” cities and “second” cities: the latter, as defined by the European Commission, are not number-one cities (capitals), but make a significant contribution to the economy of their countries [3]. The definition of “second” cities is also given by Turgel and Vlasova [4]; talking of second cities, the authors mean “the cities that rank second in terms of population in a particular territorial settlement system (international, national, regional, etc.), with a functional structure and resource potential that allow them to be comparable or ahead of the leading city in a number of parameters” [4]. This study treats “second-tier” cities as all cities that are not regional administrative centres. Such a broad treatment of second-tier cities is conditioned by the need to study the development of a creative economy in industrial cities with the population size varying significantly due to specific historical settlement patterns and other economic reasons. The term “creative reindustrialisation” refers to the transformation of an industrial city’s economy due to the development of creative industries, which leads to recovery and transition to the sustainable development of such an economy.

The purpose of the present research is the analysis of existing typologies for creative cities with the purpose to form a classification of second-tier cities in the context of creative reindustrialisation. In order to achieve the research goal, the following objectives were set:

1. To analyse the typologies of creative cities used in global and national practice;
2. To substantiate the applicability of the existing typologies for the formation of a classification for second-tier cities in the context of creative reindustrialisation.

In accordance with the objectives of the study, we focused on universal classifications of creative cities according to universal criteria, which are therefore universal in nature. As for the reflection of classifications of second-tier cities in the research literature, they include mainly works that cover this issue in relation to European cities, which are very different from Russian second-tier cities: in terms of population, economic specialization, living standards and other demographic and socio-economic parameters. Therefore, their use for the classification of Russian cities seems to be of little relevance.

2 Materials and methods

The authors used the method of content analysis of foreign and national scholarly sources addressing the issues of the creative economy and creative city classification. The systematisation of the existing typologies for creative cities involved the scientific method of classification.

The information base of the study is represented by scientific publications from the international bibliographic database Scopus, relevant articles from the Russian Research Citation Index (RRCI) database, and the approved strategies for the socio-economic development of Russian regions.

The first stage of the study dealt with the analysis of the existing typologies of creative cities, as presented in the scholarly literature. The authors give a consistent assessment of the possible implementation of the existing typologies for Russian second-tier cities in terms of their reindustrialisation. This is followed by the authors’ classification of the existing typologies for creative cities and formulation of further areas of research with a view to form a classification of “second-tier” cities with regard to creative reindustrialisation, which substantiates the practical relevance of the research.

3 Results

The typologies for creative cities appeared in the early 2000s and have not lost their relevance up to date. Smith and Warfield [5], in particular, provide a typology for creative cities focused on two dominant values that have historically been ingrained in the discussion of definitions of a creative economy and creative industries – the value of “art and culture” and the value of “creative industries” [6]. Accordingly, two different conceptual definitions of a creative city are given, reflecting the orientation towards culture and economy. The culture-centred concept of the creative city pays paramount attention to creative acts that benefit the citizens’ well-being and quality of life, while economic benefits are secondary. In contrast, the econocentric orientation considers local economic development and growth as a primary focus, while cultural values as secondary (Table 1).

Table 1. Orientation of creative cities.

Orientation of creative cities	Orientation towards culture	Orientation towards the economy
Values of creative cities	Core values: art, culture, community well-being, accessibility and inclusiveness	Core values: urban economy sustainability and well-being through creative industries
Definition of creative cities	Place of integral art and culture	Place for economic innovation, creative talent, and creative industries

Source: [5].

In terms of creative reindustrialisation, this differentiation of creative cities can be applied to second-tier cities in the sense of opportunities to use the accumulated material base of industrial cities. In the first case, it is possible to use the territory of long-defunct factories as museums, as well as “museified” sites with local crafts, thus emphasising the cultural orientation of the city. In the second case, with a focus on the economy, the territory of factories can serve as a creative basis for entertainment events (master classes, show programmes, business events). A striking example is the project “A Summer at the Factory” implemented in the premises of the Turchaninov-Solomirsky ironworks in Sysert, aimed to turn the production workshops into a creative cluster. Thus, industrial enterprises are included in the creative economy only as dead factories – either as objects for tourists or as entertainment sites, forming important locations of the tourist and recreational cluster.

The following classification of creative cities was presented by Hospers [7] who argued that local governments can ensure the status of creative cities by providing due conditions for their emergence. Depending on these conditions, cities can be classified as follows:

1. *Technologically innovative cities*, technopolies, or technopolises. These cities are designed to play a decisive role in the development of new technologies. The differentiation of such cities can be pursued by the type of developed competencies in different fields of knowledge. It is the city’s specialisation that is the major factor attracting talented workforce to the area. The communities in such cities try to compete by enhancing the quality of the urban environment: creation and refinement of public spaces for recreation, entertainment and other social-value-creating domains.

Russia has a legislative framework for the formation of such cities through creating special economic zones of various specifics: industrial production zones, innovative technology zones, ports, tourist and recreational places. Enterprises in such territories operate in special conditions; in particular, they enjoy significant tax benefits. An illustrative example of a special economic zone in the form of an innovative technology area is the Titanium Valley in Verkhnyaya Salda of the Sverdlovsk Region. In addition to the core business of developing innovative products, the most important focus of the Titanium Valley development programme is the development of social infrastructure, which includes the development of education, healthcare, construction and renovation of residential buildings.

This type of creative city is the most realisable in terms of creative reindustrialisation, given that most of Russian second-tier cities have an industrial past.

2. *Cultural-intellectual cities* based on a historically developed pronounced cultural orientation. Cities of this type are characterised by certain specialisation as a creative sector of visual and performing arts. The driving force for the development of this type of cities is the well-formed creative class serving as a magnet for attraction of creative workers. Consequently, these cities develop an infrastructure supporting the cultural needs of this class. Examples of such cities worldwide are Florence, Vienna, and Berlin.

The applicability of this city type in terms of the reindustrialisation of second-tier cities is possible through the prism of such creative spheres as historical monuments, museums, libraries, festivals, and other objects of cultural heritage and self-expression. According to the established cultural and historical tradition, the importance of such creative industries in Russia exceeds the global average by a factor of 5 [8].

3. *Cultural-technological cities*, that are characterised by the extensive development of creative industries based on the synthesis of culture and technology. Creative industries in this case serve as a stimulus for the city's reconstruction, influencing its economic growth. In addition, these industries prove to be a basis for other industries and services. Some worldwide examples of this type of cities are Milan and Paris, known for their well-developed fashion industry.

In the context of reindustrialisation, this type of city can be formed on the basis of the entertainment industry. A striking example is a tourist cluster object unique in its scale – the project “Attraction” in Magnitogorsk (Magnitogorsk in the Chelyabinsk Region is one of the largest centres of ferrous metallurgy. Magnitogorsk Iron and Steel Works is the local economic mainstay) aimed at the creation of a comfortable new-quality urban environment. The facility represents a park space (100 thousand square meters) housing various educational, cultural, sportive, public and business objects.

4. *Techno-organisational cities* that apply creative methods of managing and solving urban problems. A specific feature of cities of this type is the collaboration of the population, business, and government for a creative solution to local problems. This city type is based on the idea that cities can abound in creatively thinking people and innovative institutions, but the development of creative industries would be difficult without the appropriate support of local authorities and their ability to realise creative ideas.

To form cities of this type, the authorities are required, first, to implement due measures to remove any administrative and legal constraints that impede the transformation of the urban environment; and second, to create infrastructure necessary for creative clusters, which often requires expensive equipment for forming a creative urban environment (galleries, studios, co-working spaces, etc.). In Russia, the Federation of Creative Industries (FCI) established in 2021 for the purpose of information support brings together efficient creative business companies and runs a catalogue of infrastructural organisations and projects in the sphere of creative industries (more than 700 organisations), including federal structures and development institutions. Infrastructural organisations within the FCI are divided into the following types in terms of support: networking, information support, financing, infrastructure, lobbying, education, expert examination, and consulting [9]. Thus, the formation of creative industries infrastructure is a systemic task requiring an institutional approach at the level of regional and municipal executive authorities.

The classification of creative cities *according to specific types of features in terms of their support for urban development* was presented by Matovic et al. [10]:

1. *Creative-cohesive cities*. The city in this context is understood as a space for social interaction and cohesion achieved through culture and creativity. The basis is the realisation of local community initiatives, small and medium-sized business support programmes, and educational activities in certain areas of creative industries.

2. *Creative-compact cities*. The quantity, quality, accessibility, and cohesion of public spaces are the key components. Cultural and artistic activities are a basis for the revival of inactive public spaces.

3. *Creative-competitive cities*. Cities of this type are actively engaged in competition with other cities with a view to attract new residents, visitors, and businesses by creating a comfortable urban environment.

4. *Creative-governance cities*. This type of city is similar in intention to techno-organisational cities of the previous classification, the only difference being the emphasis on the role of multilevel and collaborative governance.

The applicability of this classification in the context of creative reindustrialisation is possible through an appropriate legislative framework at regional and municipal levels. In particular, the analysis of regional socio-economic development strategies showed that, depending on the region, priority could be given to different areas of creative industries, thus laying the framework for the formation of creative-cohesive cities. The grounds for creative-governance cities can be laid as well in second-tier cities that do not have sufficient budgets for infrastructural development. All forms of pooling private and public capital are prospective in this regard, as well as joint decision-making on urban development through participatory budgeting and the development of public-private and municipal-private partnerships.

Rationale for classifying second-tier cities according to the composition of creative industries

Since clusters represent a key element in the consolidation of creativity in cities, it is feasible to use their established typologies for the classification of second-tier cities. It is the creative industries integrated into clusters that form the city's image and make it unique and distinguishable.

Some authors believe that only the cities characterised by the marked presence of creative industry clusters have the right to be called creative cities [11]. As rightly noted by the authors of the article "Creative cities and clusters", most of the success factors of creative cities are due to the development of creative clusters, since it is owing to them that due conditions are created for the enhancement of corporate efficiency, technology development, improvement of innovations, etc. [12]. In this context, creativity becomes a self-dependent tool for transforming the economic structure of a city with a single-industry orientation (as is often observed) into multifunctional centres of human capital development and entrepreneurial initiative. Each city forms a special pool of industries differing in composition, usually referred to as creative clusters. In fact, the city is transformed into a special ecosystem comprising a conglomerate of interconnected and interdependent activities.

The term "creative cluster" has different connotations, but most authors recognise the definition of the creative cluster proposed by S. Evans, coordinator of UNESCO's "Creative Cities" programme, as a priority. Evans considers it as the cooperation of inventive, creative-minded entrepreneurs in specially marked (isolated) territories [13].

In practice, creative industries differ significantly in the structure and composition of sectors. In foreign and Russian scholarly literature and in strategic spatial planning practices, one can meet a broad variety of approaches to the typology of creative clusters due to the multiplicity of reasons for their emergence, the underlying factors and the clusters' inherent structure. The importance of applying the classifications for creative industries lies in the fact that, using a creative concept as an aspect of the city development strategy, it is possible to clearly distinguish the levels of creative industries and differentiate the managerial approaches applied to each of them [14].

As viewed by the authors of the present study, the most important issue requiring researchers' attention is the structure of creative industries forming a cluster, since every city

is distinguished by particular creative activity shaped by a large number of factors therefore treated as clusters.

Considering the significant differences in clusters, a concept based on the main elements forming them, i.e., the cluster structure, seems very useful for the typology of creative clusters. The classification is of interest as it enables one to use it as a construct that can be used to characterise the cluster structure and therefore the cluster type. The construct comprises four elements. The first element is the core represented by the key companies of the cluster, which have the greatest impact on the income and wealth of its members. The second component is represented by ancillary activities, which include all activities that directly or indirectly support the basic companies forming the core of the cluster. The third element of the construct is referred to by the author as soft social infrastructure, since it includes schools, educational institutions and organisations, research institutes, trade unions, self-governing structures, public organisations, etc. functioning within the cluster. In fact, this refers to social capital. Finally, the fourth element is represented by “hard” infrastructure comprising material elements: roads, ports, utilities, and telecommunication networks [15].

An important area of researching creative clusters is their quantitative measurement methodologically based on the Creative Industries Mapping developed by the UK Department of Culture, Media and Sport (1998), subsequently supplemented by UNESCO (United Nations Educational, Scientific and Cultural Organisation) and UNCTAD (United Nations Conference on Trade and Development). At the moment, different countries of the world adhere to different typologies for creative industry clusters. The common feature of all creative clusters is that they include the economic sectors, in which creative activity and management of intellectual property rights represent a tangible source of added value [16]. Another hallmark of such clusters is that they all use creativity, cultural knowledge, and intellectual property to generate products and services of social and cultural significance [17]. Since the methodological difficulties in the clusterisation of creative industries have been discussed by the authors in detail in the article “Methodological approaches to measuring creative industries”, it seems appropriate to focus only on typologies based on quality-based criteria [18].

The most applicable classifications for second-tier creative cities are those having a universal character. The most common of them divides creative clusters into homogeneous (integrating one sector-enterprises) and multi-profile ones (encompassing different sectors) [19]. Klaus distinguishes three types of clusters: 1) creative clusters aimed at image development and urban regeneration, 2) creative clusters aimed at employment development policy, 3) creative clusters aimed at the development of creative districts having their own subculture, freelancers, small and medium enterprises [20]. The underlying criterion proposed by the author for the classification is also universal since it is based on the purpose of creating clusters.

More detailed cluster classifications are also emerging, where the authors single out individual sub-clusters within a larger cluster (e.g., media clusters) [21]. In this case, the focus of research into creative clusters shifts to the level of an individual firm. The interest in such research is understandable: it opens up new business opportunities for a firm, primarily in terms of collaboration with other members of the city’s creative network. As a result, a creative cluster turns into a “firm-managed cluster” initially focused on the totality of knowledge and later transformed into an “art and creativity cluster with a predominant knowledge base of symbolic nature” [22]. Consequently, the core of a cluster can be represented by a company, a group of individuals, or an institution for which creative activity is predominant. This approach enables the Russian author to single out clusters with a predominant production- or presentation-based component which is accompanied by creative activities entering the public space (for instance, co-working zones) [19].

An undoubted advantage of more detailed classifications for individual sectors of creative clusters, when compiling them, is the possibility to take into account the specific local conditions of their development. An example is a typology of industrial tourism objects compiled for an old-industry metallurgical Ural region. The classification is based on the following criteria: the current condition of the object (active and inactive); the type of architecture (industrial, civil, religious); territorial characteristics (objects are grouped by areas of their location); chronological characteristics (objects are grouped by the time of their construction); historical and thematic characteristics (objects are grouped according to their common theme: Demidov factories); logistic accessibility from the tourist centre; the originality of the industrial profile, historical or architectural value. The significance of this classification can be explained by its applicability to most cities due to the huge potential for tourism cluster development and, therefore, targeted tourism industry development policy in the region and the cluster in particular cities.

A typology of creative urban spaces proposed by Kudryashov can be quite useful for the classification of clusters in second-tier creative cities in Russia. The first type is represented by creative projects based on the city's existing facilities and infrastructure. The second type includes large-scale creative projects that require state participation in the form of financial, administrative, and informational support. Further, the author supplements the proposed typology with the classification of creative urban spaces by the realisation schedule, the occupied territory size, the structure, type, nature, and sphere of activity. All these types of creative urban spaces, according to the author, are aimed at the formation of a creative city [19].

According to the classification developed by Prokhorov, the sought criterion is represented by the level of creative cluster development, which makes it possible to construct a hierarchy of creative spaces. The first level is represented by "full-fledged creative clusters" targeted at all age groups occupying former industrial areas functioning as business models offering a broad range of services to their visitors. Creative spaces characterised by "narrow specialisation but operating on a permanent basis under a single independent label" constitute the second level. Accordingly, the third level is represented by spaces that "become creative only when some event takes place in their premises" [24]. The results obtained using this approach can be applied in the formation of urban policy for the support and development of creative clusters.

Thus, the use of creative clusters is complicated by the fact that no consensus has so far been worked out on the classification of creative industry sectors, primarily due to the lack of a universal list of domains and activities included in the structure of a particular industry [25]. Nevertheless, some classifications of creative clusters are quite acceptable for use. In the first place, they include classifications in which the criteria are based on qualitative characteristics. One of the advantages of such typologies is that they allow for a comparative analysis of different cities both within the region and across the country. These classifications can be complemented at the level of individual clusters by detailed specifications within the cluster.

The further work aimed at forming a classification of second-tier creative cities, in the authors' opinion, requires a combination of theoretical and methodological concepts for second-tier cities, a creative city and creative cluster. The main efforts should be aimed at establishing quantitative parameters that can be used to estimate the size of the creative cluster and its structure, and, consequently, the scope of the creative class. There exists a methodological basis for such measurements – the Creative Industries Mapping developed by the UK Department of Culture, Media, and Sport (1998), but it needs a serious follow-on revision by specifying the creative activities with regard to the national specifics. Second-tier cities, which are home to a significant share of the urban population, are highly differentiated and therefore require a tailored approach to regional policy development with regard to the

territorial context, human capital features, and governance structure. It is obvious that, for this reason alone, the role of the creative economy as an instrument for transforming Russian industrial cities will increase in the future, and the focus of attention will shift even more towards them.

Table 2 presents a result of the selection of creative city typologies according to their applicability for second-tier cities, based on the systematisation of creative city and creative cluster classifications developed by foreign and Russian researchers.

Table 2. Authors' typology of existing creative city classifications.

Parameter	Content	Author
By value orientation	<ul style="list-style-type: none"> • orientation towards culture; • orientation towards the economy 	Smith & Warfield (2007), Jurene & Jureniene (2017)
By the type of creativity	<ul style="list-style-type: none"> • technologically innovative cities; • cultural/intellectual cities; • cultural/technological cities; • technological/organisational cities 	Hospers (2003), Brown (2010)
By the type of creative support	<ul style="list-style-type: none"> • creative-cohesive cities; • creative-compact cities; • creative-competitive cities; • creative-governance cities 	Matovic, Madariaga & San Salvador del Valle (2018)
In terms of the composition of creative clusters	<ul style="list-style-type: none"> • orientation towards image development and urban recovery; • orientation towards employment promotion; • development of creative areas with their own subculture, freelancers, small and medium businesses 	Klaus (2006)
	<ul style="list-style-type: none"> • cities with full-fledged creative clusters; • cities with a narrow specialisation, but operating on a permanent basis under a single independent label; • cities that become creative only when some event takes place in their premises 	Prokhorov (2021)
	<ul style="list-style-type: none"> • cities with creative projects based on existing facilities and infrastructure, with large-scale creative projects that require state participation 	Kudryashov (2016)

4 Conclusion

The undertaken analysis allows the assertion that second-tier cities represent a separate research category that requires, first, a differentiated approach, both in theory and in political terms, and, second, further reflection. This determines the expediency of considering the existing creative city typologies with a view to justify their applicability for forming a due classification of second-tier cities involved in the process of reindustrialisation.

The authors have formed a pool of classifications based on the theoretical and methodological concept of a creative economy and creative industries. The value of each of them lies in the assumption that the classification makes it possible to form a systemic

approach to the object under study and apply it towards changing the cities' strategy, focusing on the objective to increase their sustainability and attractiveness.

The formation of classification for second-tier creative cities should be based on a theoretical and methodological framework synthesising classifications grounded on the concepts of creative industries, reindustrialisation, and second-tier cities. The new classification will make it possible to create due prerequisites for a more precise identification of the city's targeted hallmarks from the position of the development of creativity therein, and to choose efficient management models for their realisation.

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