Abstract. Transformation processes in Kyiv Metropolitan Region (KMR), stimulated by globalization and post-Soviet changes, are overlapping. Different parts of KMR have a different degree of globalization impact and intensity of the transformation processes. Gentrification, deindustrialization, tertiarisation and functional fragmentation have the most essential importance for development of the metropolitan city. During the last decade, transformation of public spaces in Kyiv was significant and characterized by their commercialization, sacralization and increasing role of indoor public spaces (malls). Issues of brownfields revitalization and formation of new business center (Kyiv-City) broadly discussed, but require strategic and practical implementation. Is the implementation of mega-projects evidence of globalization of the city? What the global events (Euro Cup-2012 in particular) give to Kyiv? These and other questions will be discussed as well. Modern tendencies of metropolitan area development are construction of the gated communities (cottage settlements), multi-storey blocks for commuters in satellite towns, development of the logistics centers and complexes, new plants construction (especially in food industry and building materials production).
In the context of the chosen topic we can distinguish two aspects of urban research: (i) studies of the transformation of city and metropolitan area (primarily due to the globalization and post-Soviet changes) and (ii) studies of integration of the city into the global network. In this paper the main emphasis is on the first aspect – the analysis of transformation processes in Kyiv Metropolitan Region (KMR), however, it’s clear that we should take into account the consequences of the process of the integration into the global network, causing structural and functional changes. Different parts of KMR have a different degree of globalization impact and intensity of the transformation processes.

**Metropolitan city.** Gentrification, deindustrialization, tertiarisation and functional fragmentation have the most essential importance for development of the Kyiv city. In the last decade due to the lack of a clear spatial development strategy of Kyiv chaotic construction in all free areas in the city exists (in the central zone as well as in the semi-peripheral and peripheral neighborhoods). The economic crisis resulted in a temporary reduction in construction in 2009-2010 (e.g. 347 sq. m of housing per 1,000 residents in 2009 and 368 sq. m in 2010 in compare with 528 sq. m in 2008), which resumed in 2011 (533 sq. m). Building density in the central historical part of city is growing. The maximum of the nighttime population density is observed in the nearest middle zone (fig. 1).

Verticalization is a typical process for Kyiv: new skyscrapers emerged in CBD and inner city (housing complex ‘Klovsky descent 7a’ /168 m/, business centers ‘Gulliver’ /141 m/, ‘Sail’ /131 m/), or additional floors on the old buildings are constructed (including the historical buildings, which consequently lose their historical value). At the same time, some buildings are destroying, public gardens and parks are cutting down to free land for new buildings construction.

![Figure 1 – Nighttime population density in Kyiv neighborhoods, pers./sq.km (2011)](source: author's calculations)

Process of the central part reconstruction is accompanied by gentrification. During the 2000s population of the city center has changed significantly, in particular due to the replacement of the top managers by ones from other regions. Although separate areas with high-income and low-income dwellers certainly
emerge in Kyiv, increase of the social stratification did not cause significant spatial segregation. In particular, ethnic segregation is absent in the city.

Transformation in the employment structure of the city is essential and results of the deindustrialization and tertiarisation processes. In the period from 2001 to 2009, share of services in employment structure in Kyiv increased from 71.6% to 81.6%, while share of industry decreased more essentially (-6.6%). The maximum increase was in trade, hotel and restaurant activities, public administration, and financial services. At the beginning of 2010, 52.7% of FDI into Kyiv was directed in finance activity (for instance at the beginning of 2005 – 23.2%).

Some of industrial areas of former plants in Kyiv are transformed into a shopping and entertainment centers (mall ‘Bil’šovyk’ on the territory of former plant ‘Bil’šovyk’), housing complexes (‘Comfort town’ on the territory of former plant ‘Vulkan’), or fragmented polyfunctional zones (former plant ‘Arsenal’). But industrial zones where production stopped, but the revitalization does not occur, still exist (closed shipyard ‘Lenin’s Smithy’ or distillery ‘Stolycnyi standard’).

Most of the administrative institutions of both state and municipal authorities historically are concentrated in the central part. New office centers emerge also mainly in the CBD and inner city. As a result, the central part is overloaded by administrative and office centers that are randomly embedded in historical buildings, distorting the image of the city. In addition, lack of parking areas results in cars parking on the roadways and sidewalks, creating traffic jams and inconvenience for pedestrians.

As a result of deindustrialization, gentrification and revitalization during the 2000s functional fragmentation became more detailed and mosaic: originally integrated functional zones was dissected into smaller areas with different functions.

During the last decade, transformation of public spaces in Kyiv was significant and characterized by their commercialization, sacralization, separation and increasing importance of indoor public spaces (malls) due to a significant reduction in the role of squares and parks. Commercialization manifests in the location of retail and restaurant establishments on the squares, public gardens, parks territories. If previously public spaces were the recipients of investment and encouragement from the local authorities, in the last decade they have become a source of private profit by sidewalks selling for advertisement placing.

Sacralization of public spaces manifests in new construction or renewal of churches, thus transforming formerly available to all spaces onto spaces for adherents of a particular denomination (sometimes putting in force restrictions on dress, behavior and the like). In 2000s around 70 new churches were built in public gardens, parks, territories of hospitals, universities, near railway stations, markets. More than quarter of them are temporary wooden churches or so called ‘churches-tents’.

In the parks, embankments, some streets and lanes gated communities appear. Public access to them is impossible or limited (for example, gated housing complex ‘Oasis’ at Obolonsky embankment).

Modern trend is development of public centers in the indoor (sometimes underground) public spaces (malls). At the same time squares serve as places of
communication, territorial identity and recreation in less degree. Malls in Kyiv appeared in 2001 during the reconstruction of streets and squares in the central part. Now about 20 malls are located mainly ring around central zone due to the lower land prices in peripheral areas, lower level of building density and lower concentrations of various institutions, organizations and businesses that provide services in compare with central part. Malls localization on the outskirts of the city is mainly dependent on higher level of transport accessibility; therefore most of them are located near transport communications.

Realization of mega-projects and host of the global events is the important marker of city globalization. Final stage of the UEFA Cup 2012 that was held in Kyiv stimulated the development of sports and transport infrastructure – reconstruction of Olympic stadium (2008-2011), construction of new metro stations (10 in 2000s), reconstruction of the fast tram (2010) and development of city train (2011), construction of new terminals at Boryspil International Airport (terminal F in 2009-2011 and terminal D in 2008-2012). However, for instance, launching of the city train hasn’t significantly changed the functioning capacity of the city highways because it’s inconvenient to communicate with other modes of transport, inconvenient by speed and traffic, and consequently, is unprofitable. In order to improve the accessibility of the airport state authorities carry out in practice the national project ‘Air Express’, which will provide an electric train connection line between airport and main railway station.

Other ‘mega-projects’ in Kyiv are the new Podilsko-Voskresensky bridge (1993-2013?) and new business district Kyiv-City. In order to release the center from business and administrative functions various place options are offered for a new downtown. In 2005 such project was proposed on Rybal’sky peninsula (so called Fisher’s island) instead of industrial zone and residential area, but the project failed to realize firstly because of failing to take into account the transport accessibility of the peninsula. Presently, there are several options for Kyiv City location, most likely of which are Northern Osokorky (on the left bank of the Dnieper instead of private small villas) and Lower Telychka (on the right bank of the Dnieper instead of an industrial area). The most difficult point in both projects is to free the areas from private buildings or industrial plants.

Another line of transformations is development of the exhibition infrastructure. Kyiv has the most of exhibition centers in Ukraine, both in number and in size, although the city is behind the leading European exhibition centers. Half of all exhibitions and three-quarters of the international exhibitions in Ukraine are held in Kyiv.

Metropolitan Area. Modern tendencies of metropolitan area development are construction of the gated communities (cottage settlements), multi-storey blocks for commuters in satellite towns, development of the logistics centers and complexes, new plants construction (especially in food industry and building materials production).

KMR has a belt-sector structure. Analysis of the accessibility of Kyiv from the surrounding settlements with regular bus and train routes allows delimiting belts of one, two and three hours accessibility to local bus and railway stations of the city.
Every belt can be divided into seven sectors, which were formed along major transport routes, each of which is characterized by specific development of the transformation processes.

Over the last decade (from 2001 to 2010) a slight increase of urban population was observed only within the first belt (2.4%). Urban population of the second belt fell by 2.1%; of the third one fell by 3.0%. Rates of rural population declining are significantly higher: 12.2% within the first belt, 15.3% within the second belt, and 14.4% within the third belt.

Two towns with over 50 thousand inhabitants (Brovary and Boryspil) are located within the first belt and have population growth. Among 9 towns with over 20 thousand inhabitants five settlements experience increase of population number and four – decrease. All towns with population growth have high transport accessibility and, consequently, significant share of their population commute to Kyiv. Among 5 towns with up to 20 thousand inhabitant only one settlement experience increase of population number (Ukrainka, which specialization is determined by Trypil’ska thermal power station). The number of population of the overwhelming majority of ’urban-type settlements’ (a transitional form of settlements between town and village – ’small town’ or ’urban village’) decreases.

An important indicator of the metropolitan area development is dynamics of putting into service of housing. The area with the high intensity of residential construction over the past 5 years (average annual value more than 300 sq. m per 1,000 inhabitants, and in two districts – more than 1000 sq. m) coincides with the area of the first belt of KMR (Fig. 2). Meanwhile all other areas of KMR have low intensity of residential construction (less than 100 sq. m in the majority of districts), especially in the north and northeast, where the highest rate of depopulation. The above mentioned processes show growing social polarization of settlements within the KMR.

Modern tendency is the construction of the cottage settlements (‘gated communities’) around metropolitan city. Intensification of the cottage settlement construction began in the 1990s, when on the territory of former dachas (‘dacha’ is the summer house that is seasonally used by city dwellers) gated communities have been organized. A new wave of the city expansion into suburban greenfields started in mid-2000s, and was associated with the developing of new areas, especially along the Dnieper River and the motorway to Zhytomyr. Distance from Kyiv to the new cottage settlements gradually increases. But seasonal use of cottages is rather high. The slowdown of gated communities construction and new projects development was in 2008-2010 as a result of the global financial crisis. Expansion of cottage settlements around Kyiv has areal shape and largely depends on three factors – transport accessibility, availability of natural recreational landscapes (rivers, lakes and forests) and social environment. It should be noted that environmental factors do not affect as limitative.

In the second half of the 2000s logistics centers, complexes and parks were built close by the main motorways on the urban fringes. We can find two areas with the higher concentration of logistic activities: in the western sector along the motorway to Zhytomyr and further to western border of Ukraine (which is also
located closely the cottage settlements) and in the north-eastern and south-eastern sectors along and between the motorways to Chernihiv/Moscow and Kharkiv.

Figure 2 – Average annual putting into service of housing in Kyiv Metropolitan Region in 2005-2009 (Source: Statistical Yearbooks of Kyiv, Zhytomyr, Vinnytsa, Chercasy, Poltava, Cherigiv and Sumy regions)

In post-Soviet period in conditions of prolonged economic crisis industrial production in KMR dropped significantly. Some industrial enterprises were liquidated, and other part – temporarily not functioned. During the 2000s, industrial production increased and industrial specialization was changed. In particular, it concerns the development of enterprises in various branches of the food industry, building materials production, chemical, engineering, woodworking, furniture, pulp and paper, and printing industry. However, the share of the high-tech industries is insignificant. Production capacity of the poultry farms around Kyiv significantly increased. Floriculture, cultivation of mushrooms also developed. Industrial production in rural areas essentially expanded. Not only food and building materials production, but also chemical, machinery plants was built in villages not far from Kyiv.

On the whole, Kyiv metropolitan area is characterized by functional fragmentation with combination of industrial, agricultural areas, logistics and storage complexes, cottage residential and recreational zones.

So, transformation processes in Kyiv Metropolitan Region, stimulated by globalization and post-Soviet changes, are overlapping. Uniform transformation processes in Kyiv (as in other cities) are deindustrialization, gentrification of the inner city neighbourhoods, verticalization, development of the new office centres,
hotel chains, exhibition centres, growth of the role of financial services, development of the transportation infrastructure, construction of the malls and logistic complexes in the city outskirts and urban fringes, gated communities in the rural hinterland, functional fragmentation, realization of the mega-projects. At the same time we can see specific processes, such as sacralisation of the public spaces, weak socio-spatial polarization, absence of ethnic or religious polarization.

**RETHINKING THE FORM AND FUNCTION OF CITIES IN POST-SOVIET COUNTRIES: A SUMMARY**

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**Abstract.** Eurasian cities, unique in the global spatial landscape, were part of the world's largest experiment in urban development. The challenges they now face because of their history offer valuable lessons to urban planners and policymakers across the world from places that are still urbanizing to those already urbanized. Today, Eurasian cities must respond to three big changes: the breakup of the Soviet Union, the return of the market as the driving force of society, and the emergence of regional powers such as the European Union, China, and India that are competing with the Russian Federation for markets and influence in its former satellites. Several methods of analysis indicate an imbalance across Eurasia, implying a need to readjust Eurasia's urban structure. National policies in Eurasia are still preoccupied with spatial equity. But the concentration of economic activity in large cities is fundamental to national competitive advantage: they foster innovation through their diversity of industries and reduce production costs through their economies of scale. This paper suggests some ideas on how policymakers can harness the economic power of cities to drive national economic development, by focusing on four themes: planning, connecting, greening, and financing cities.

Кулібалі С. Переосмислення форм та функцій міст у пострадянських країнах. Євразійські міста, унікальні у глобальному просторовому ландшафті, були частиною найбільшого в світі експерименту в сфері міського розвитку. Виклики, які стоять перед ними внаслідок їх історії, дають цінні уроки для містобудівників та політиків по всьому світу від місць, які ще урбанізовані, до тих, які вже урбанізовані. Сьогодні, Євразійські міста повинні відповісти на три великі зміни: розпад Радянського Союзу, повернення ринку як рушійної сили суспільства, поява регіональних сил, таких як Європейський Союз, Китай чи Індія, які конкурують з Російською Федерацією за ринки і вплив на колишніх сателітів. Кілька методів аналізу вказують на дисбаланс по всій Євразії, що визначає необхідність корегування міської структури Євразії. Національні політики країн Євразії все ще спрямовані на просторову справедливість. Але концентрація економічної діяльності у великих містах має фундаментальне значення для національних конкурентних переваг: вони стимулюють інновації шляхом диверсифікації галузей промисловості і знижують виробничі витрати за рахунок ефекту масштабу. Ця стаття пропонує кілька ідей щодо того, як політики можуть використовувати економічний потенціал міст для забезпечення національного економічного розвитку, фокусуючись на чотирьох темах: планування, зв'язування, «озеленення» та фінансування міст.

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