Urbanism and geography of the Olympic Winter Games

Mgr. Igor Kováč
Národné športové centrum
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Introduction

This contribution focuses on urban and spatial aspects in organisation of the Olympic Winter Games. It explains the role of urbanism within this process, implying the reasons which allow its distinguishing as an “Olympic” phenomenon. In this regard, an Olympic geography will be defined and its role will be further explained, resulting into identification of Olympic territory as a common platform of the both. Consequently, the concept of Olympic urbanism model will be introduced as a result of application of geographical approaches in studying the Olympic urbanism, in order to provide a historical overview and final synthesis of the factors determining spatial organisation of the Olympic Winter Games in host territories.

Olympic urbanism

Without any intention to exclude its environmental specifics, the Winter Games as a sort of mega-event can be clearly understood “...as an important urban phenomenon of our time...an one-time urban event with increasing prevalence as an urban strategy...” (Hiller, 2000: 185). Of course, the mountainous specifications of the Winter Games cannot be neglected as they essentially modify this strategy.

In any way, however, it is the urbanism, a set of scientific and artistic methods and procedures used in the formation of human settlement, which represent those strategies. The main concern of urbanism, as one of its definitions says, is the formation and composition of urban organism and wider territorial units, following the quality of the human living environment, affected by natural, material, cultural and social aspects, highlighting the concrete population needs as its direct starting point.

In this respect, with the increasing number of cities as hosts, the role of the Olympics is evident as an actor that assists in putting those needs into reality, thus becoming an useful means of urbanisation in particular territorial context. This appears to be the basic argument to distinguish Olympic urbanism as another field of Olympic studies, firstly recognized by Munoz (1997), who understands this type of urbanism as something “...more than a descriptive analysis of morphological transformations of urban space or the comparison of economic investments and input/output results of the Games. This issue offers a really good platform to understand different scales of urbanisation processes during the decades of modernity...”

However, there appears a need to add another important argument as a justification of distinguishing Olympic urbanism. In fact, it is not just its presence and growing relevance in the organisation of the Games that allows it to “wear the Olympic sign”. There is a very important aspect residing in its bipolar character, as Hiller also stressed, in “...the problems of aligning the structural implications of event

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2 The field of Olympic urbanism was initially presented by author at the International Symposium on Olympic Villages held in Lausanne (1996), offering the first step in making more visible the research on this specific type of urbanism.
requirements with uses congenial with long-term city needs…” (2000:195). While urbanism in its traditional apprehension, as the aforementioned definition said, focuses on the needs of local residents in particular area, being involved in the Games’ organisation, the Olympic urbanism has to take into account another significant group of rather temporary, guesting residents, represented by an extended Olympic family.²

Olympic urbanism thus follows not only the needs of permanent residents as a host, by forming and arranging their living space, the structures of cities and larger territorial units, but it also compounds the needs of Olympic family as a guest, by forming and arranging its temporary living space applied within the existing settlement network of hosting territory. Olympic urbanism faces a very specific situation as it has to prepare conditions that “…on the one side would provide an attractive and exciting festival of sport, while on the other side, ensuring beneficial long-term legacies for the host community” (Essex, 2002: 9).³

Olympic geography

The science of space and time may be the briefest characteristic of geography that has changed its definition and content, following the changes of its object – the earth’s surface as natural environment and as space that supports and accommodates human activities which transform it. Geography analyzes and interprets the composition and structure of space that is shaped under the influence of natural factors as well as socio-cultural, economic, ideological or political processes. A variety of specialized areas within the broader field of geographic research have evolved, which study in detail specific spatial phenomena, e.g. physical geography, social geography, economic geography, urban geography, rural geography etc.

In this respect, the Olympic Games appears to provide a very interesting subject for geographic studies, as significant social phenomenon that has considerable spatial connotations, bearing in mind its contemporary dimensions. Moreover, the spatial aspects in organisation of the Olympic Games have been recognized to have an increasing importance within the Olympic agenda. It has been therefore quite obvious and inevitable until geography will take its place within the field of Olympic studies.

The complexity of the Games represents an excellent platform for the promotion of an almost inexhaustible variety of human activities, which can be also identified as Olympic production. The spatial distribution of its “products” shows how geography

² The notion of Olympic family use to have varied apprehensions. In its strict sense it includes the IOC, IF and NOC guests and officials. This most usual apprehension is being recently replaced by a more extended version, defined according to the accreditations issued during the event, so the Olympic family includes the categories like athletes, travelling officials (coaches, doctors, administrators, technicians, etc.), media representatives, employees of organizing committee as well as volunteers (see Chappelet, 1998).

³ Hiller (2002) has also identified this situation as „…a tension between Olympic and host city agenda…” using a specific term „Olympic planning“ which can be understood as synonymous to the notion of Olympic urbanism, addressing the problem of „…rearrangement of cities urban planning in order to produce a successful event.”
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may implement its approaches to interpret such important issue as the impact of the Olympic Games. From geographical perspective, the spatial impact of the Games defines a form of territory that varies from a local up to a regional and global level, taking into consideration different aspects/activities of the event – sporting, economic, urban, social, and environmental.

Similarly, the reflections of Dansero (2002, 2003) suggest certain geographical perspective within the analysis of the Olympic Games, focusing on the „...relationship which the mega-event constitutes with its spatial organisation; particularly how it forms the definite space of the Olympics on its different scales, being in geographical interest.”

Olympic territory, as this space could be also identified, thus represents another form of geographical object – a space which is formed on the earth’s surface, having its own structure that is shaped under the influence of processes, resulting form the complexity of Olympic production.

Olympic territory – a common platform of Olympic urbanism and geography

From the reflections made so far, it is quite obvious that space is the common feature of both Olympic urbanism and geography. It is the basic object of geographical science, accommodating human activities that work as the transformational means of its structural characteristics. Olympic urbanism embodies the whole set of such activities, comprehensively identified as urban production, including the operations of location, land management and construction.

The urban production in relation to Olympic urbanism results in certain spatial distribution of event related infrastructure that forms the basic territorial framework of the Games. It is identified as Olympic scene – a form of Olympic territory prepared for those “16 days of glory”, where the life of Olympic family takes place. In this work it is viewed as a territorially interactive set of structural elements – Olympic host city and co-host cities. The Olympic scene is approached as a daily urban system, indicating that its structural elements are mutually interlinked, so that they allow an everyday contact of its residents. In other words, the Olympic scene

4 The IOC expressed a desire to have an analysis tool for identifying and measuring the global impact of the Olympic Games. Therefore, in September 2000, the IOC commissioned the International Sports Science and Technology Academy in Lausanne to execute the project Olympic Games Global Impact (OGGI), in order to identify the „spatial boundaries of global impact” with the so-called „zones of impact” as an application of the spatial aspects in organisation of the Olympic Games.

5 In this research just and urban aspect of Olympic production is taken into account. However, the spatial implications of other aspects may provide an opportunity to gain interesting geographical information in future research projects.

6 The notion of Olympic scene has been chosen as a term expressing appropriately the character and ephemerality of this territorial structure, additionally, unifying very diverse terminology in this regard. The organizers of the Games have used different terms referring to the basic territorial structure of the event, e.g. Olympic Game system, Olympic space, Olympic area, Special Area of the Olympic Winter Games, Olympic District, Olympic zone, Olympic competition area.
represents a form of spatial organisation of the Games, resulting from spatial distribution of Olympic functions.

So as one of the main tasks of urbanism is the spatial organisation of urban life by solving the spatial distribution of urban functions, the Olympic urbanism, additionally, needs to take into account the specifics of Olympic functions. They are conceived as an analogy to basic urban functions of work, residence, leisure and transportation, but executed within a limited time period by the members of Olympic family, being in a substitute role of urban citizens.

This issue appears to be of an increasing relevance within the Olympic agenda that provides a very good platform for geography to identify, analyze and interpret the different forms of Olympic territory that the Olympic urbanism has produced throughout the history of the Olympic Winter Games. Through implementation of geographical approaches we gain useful knowledge and information on the manifold aspects that stand behind Olympic urbanization process, hence influence spatial organization of every Olympic Winter Games edition.

**Olympic urbanism model**

The result of implementing the geographical approach in studying Olympic urbanism and its territorial impact is the concept of *Olympic urbanism model (OUM)*. It has been identified as an instrument to understand and interpret both spatial and urban aspects in organisation of the Olympic Winter Games. The concept represents an informational framework synthesizing answers on two strategic questions that signify the interests of both sides.

From the perspective of host city, the OUM contains information pertaining to the issue of how the city will look like in the future, how the urban functions will be distributed within host territory. In other words, where the investments and construction, related to the event, will be situated and where the urbanisation, in terms of urban production, and the process of development, with particular territorial transformations, will take its place, reflecting the needs and criteria of the host community.

From the Olympic agenda perspective, the OUM replies the question of how the Olympic city will look like, how the Olympic functions will be distributed within host territory. In other words, “...how the mega-event would be situated and accommodated within the host city” (Hiller, 2000b:190), implying the issue of siting the Games into particular territorial context, according to Olympic criteria.

These two perspectives shape the OUM and determine its content, providing useful geographical knowledge and information about the different factors, needs and criteria that have appeared and evolved throughout the history of the Olympic Winter Games and the evolution of host cities, and that have affected Olympic urbanism with regard to the spatial arrangement of the event (form of Olympic scene). Their identification and understanding enabled to distinguish a sort of location principles.
that can be comprehensively grouped in two spatial strategies, reflecting the host city and Olympic agenda.

The *local spatial strategy (LSS)* refers to location principles, which are derived from particular urban and regional development policies of host cities, based around the character of urban organism and region, e.g. size, economic structure, quality of built environment etc., and their development needs, determining location of event-related infrastructure, hence spatial distribution of urban functions over the host territory. Generally, the principles reflect the urban and regional development perspectives, indicating the location and format of urbanism, or the typology of interventions that characterize urban production operations related to the event, leaving in space the infrastructure as economic development tools with particular territorial transformations.\(^7\)

On the other hand, the *Olympic spatial strategy (OSS)* refers to location principles, which have evolved according to Olympic agenda’s key concept of Olympic spirit, strategically pertaining to the experience of unity in space and time that determines spatial distribution of Olympic functions in host territory. Generally, they express a changing apprehension and attitude to territorial conditions within which the concept of Olympic spirit could be realized. In other words, the principles refer to a changing apprehension of an ideal Olympic city (form of Olympic scene).

The following two chapters will now serve as a historical analysis of both strategies and provide a background for subsequent synthesis, resulting into definition and comprehensive description of basic OUMs implemented in the course of Winter Games history.

**Evolution of local spatial strategy**

*Inaugural single-location strategy (1924-1960)*

At the beginning, in the inaugural period, the essential development intentions are focused around the promotion of winter sport practice, especially on a national level. This is a common feature of all inaugural events, being well exemplified through the showcase of Cortina d’Ampezzo: “It became clear that only some event of world-wide importance could put winter sports in Italy in their proper perspective. The Olympic Games were thought to be the most likely incentive for popularizing sport education, particularly since the first Games in Chamonix (1924) were known to have had a favorable effect in this respect”(Organizing Committee Official Report, Cortina d’Ampezzo 1956: 79).

\(^7\) In this regard, Munoz (1997), originally developing the issue of Summer Games Olympic urbanism, gives a general point to the winter event, namely, that they are held in smaller cities in mountain areas with urban dynamics which are less active than those of the Summer Games host cities throughout the century; secondly, by definition and from a content point of view, the scope of interventions is not as wide; and that the design and structure criteria are different from those of the Summer Games, e.g. the prevalence of indoor urbanism with scarcer range of spaces to be planned (p.28).
Basically, the event assisted the host mountain resorts in two directions: as an economic actor attracting for a limited period of time the visitors as winter tourism consumers, and as an actor creating, through the promotion of winter sport practice, a visitor basis for the following seasons. The resorts thus received an opportunity to, either, strengthen their already existing prestige and winter tourism tradition, as e.g. in Chamonix, St. Moritz, Cortina d’Ampezzo, or to build up a brand new one as it happened in cases of Lake Placid⁸, Garmisch-Partenkirchen and Squaw Valley.

The above mentioned situation allows to assume, that the guiding principle of Olympic urbanism was signified by an urban development of host territory through building the necessary sports infrastructure – being mostly absent in this historical period of the event – as well as through the reconstruction of accommodation capacities and local transport infrastructure (e.g. railway stations, roads). In all cases, we can observe a kind of low-scale urbanism with “minimal infrastructural transformations apart from sports and transportation facilities” (Essex, S., Chalkley, B., 2003: 101).

The local spatial strategy, derived from this urban development principle with low-scale urbanism type, is therefore signified by maximal concentration of urban production within a single-location spatial pattern that is formed around the territorial framework of host resort.

In certain modifications, this spatial strategy was applied even in the case of Garmisch-Partenkirchen (1936). The Olympic urbanism was strategically based on uniting the originally separate development plans of two independent communes into a common one⁹, designating their future for winter tourism. The reconstruction of existing facilities and building of new ones was thus spatially concentrated within a territorial framework of a bi-nodal urban structure, acting as a single-location spatial pattern, in order to create a winter resort for the visitors of the nearby city of Munich, being already well connected with this mountain site through a multi-modal transportation system. It can be said, that the German approach represents the first example in Olympic history of a purposely created *territorial pact*, following common urban development.

The second modified example implementing the inaugural spatial strategy is Squaw Valley (1960). Behind the initial development plan stood a private initiative of Alex Cushing to create its own economic/profit-making tools in the form of purposely built

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⁸ In this regard the Lake Placid resort was presented as follows: „...the pioneer winter resort of the North American continent, where it was entirely feasible to develop at least six to eight-weeks winter season comparable to that enjoyed by leading European and Swiss resorts“(Organizing Committee Official Report, Lake Placid 1932: 45).

⁹ „The twin cities of Garmisch-Partenkirchen did not become a single entity until 1935. Initially, they were separate towns, each with a long history of its own and a separate development“(www.garmisch-partenkirchen.de, 2004). Both communes had their own communal construction office Gemeindebauamt overtaking the urban production operations in the preparational period of the Games, as well as their own independent revenue income after the event, designated on 100.000 RM (Organizing Committee Official Report, Garmisch-Partenkirchen 1936: 29, 70, 74).
winter resort in the vicinity of California’s largest population areas. On the contrary to previous cases, the location chosen for this purpose did not comprise any urban structure prior to the Games that would act as a territorial framework for urban production. Moreover, the existing host population, counting some 60 permanent residents at that time (Kukawka, P., 1992: 36), constituted a minimal demanding agent for Olympic urbanism. Therefore, the situation, on the one side, provided an ideal opportunity to realize exclusively the needs of Olympic family as the guest community\textsuperscript{10}, and, on the other side, it substantially facilitated the conditions for the whole location process.

Consequently, the implemented local spatial strategy was based on an urban development principle, signified – in comparison to other inaugural events – by relatively large-scale urban production, concentrated into a single-location spatial pattern resulting in the formation of a new urban fabric.\textsuperscript{11}

Post-inaugural metropolitan multi-location strategy (1964-1988)

Further changes in the local spatial strategy came with the ascent of medium-sized cities. Generally, the main feature of development plans in this phase was the strategic focus on major urban nuclei. The first two cases of Oslo (1952) and Innsbruck (1964) exemplify certain transition from the mountain resorts of the inaugural period, following similar development intentions of winter sports stimulation and/or support of tourism oriented strategies.\textsuperscript{12} The way of their realization, however, varies by implementing relatively large scale urbanism type, improving the existing urban infrastructure and extending the urban fabric of host city, while, at the same time, ensuring a tangible and durable legacy for the host community.\textsuperscript{13}

The Olympic villages are the best example of this situation. Entirely new billeting quarters, later known as the “Students’ city” at Sogn, as well as the municipal hospital living quarters at Ulleval were erected in Oslo, and a social housing units in Innsbruck’s Neu Arzl development zone were built to improve the living standards for local residents. In addition, the sports facilities were left in space as an integral part

\textsuperscript{10}“Alex Cushing...convinced this group (IOC) that the very lack of facilities was an advantage...to design and build from the ground up an Olympic city...potentially excellent Olympic competition area” (Organizing Committee Official Report, Squaw Valley 1960: 15).

\textsuperscript{11}The situation provided the basis for the formation of historically biggest venue cluster comprising within a very small area all the necessary sports installations, accommodation for thousands in Olympic village and new hotels, as well as restaurants and other related infrastructure (Organizing Committee Official Report, Squaw Valley 1960: 15).

\textsuperscript{12}The 1976 edition of the Olympic Winter Games held in Innsbruck – replacing Denver which gave up the honour of hosting the event – can be conceived as an Olympic revival that implemented the plan of reuse, modernization and further development of infrastructure built for the 1964 Winter Games.

\textsuperscript{13}“The basic principle of the committee’s planning and calculations was that when once construction or building was considered necessary, it should be done in such a way that facilities of permanent value were created” (Organizing Committee Official Report, Oslo 1952: 23).
of urban fabric, having a favourable multi-purpose design, as e.g. the ski jump arena at Holmkenkolen, Bislet stadium and Jordal Amfi Hall in Oslo, or the Tivoli sports complex and Bergisel ski jump arena in Innsbruck.

Moreover, the surrounding mountain resorts – acting as the Olympic sites during the event – were developed within the metropolitan area of host cities as the tourism oriented profit-making tools and elements of cities’ economic structure, e.g. Norefjell (Oslo)\textsuperscript{14}, and Axamer-Lizum, Igls, Seefeld (Innsbruck). The guiding principle, influencing the local spatial strategy, had therefore received an urban, but also an important regional development connotation of a metropolitan code, with a multi-location spatial pattern. These features, however, were more clearly perceived by other host cities in this phase.

\textit{Grenoble and Sapporo strategy}

The cases of Grenoble (1968) and Sapporo (1972) stand at the beginning of an epoch, signified by an exchanged approach to the event and with that related development incentives. In fact, the Games of Grenoble commenced a Winter Olympic historical period of intensive globalization and utilization of its effects. Since then, formation of a strong mutual interdependence between the city and the event can be recognized, especially, due to the strengthening mediatization tendencies. The city had started to use the brand new born role of Olympic media event to present and promote itself in front of a large public (multi-million TV spectators) with a new attractive image as an important marketing commodity.\textsuperscript{15} In order to attain this goal, the city’s main development plans became traced to the realization of its glocalization potential, representing a context for the urban production operations. On the other hand, the event had started to use this potential and the role of Olympic urban event to benefit from medially/commercially attractive urban environment.

From this point of view, the Games represented the threshold identifying the \textit{glocalized Olympic urbanism} as a leading feature of the post-inaugural editions of the Olympic Winter Games. This contextual situation, of course, had brought with itself particular consequences for the content of the principles influencing the local spatial strategy.

The urban and regional development was attributed with an improved importance within the host city agenda. In particular case of Grenoble, the efforts of the city to globalize itself were set around the utilization and development of its industrial,

\textsuperscript{14} Norefjell, the nearest (75 miles) alpine skiing district to Oslo was planned by the Installations Committee as winter tourism and recreational site, due to its convenient accessibility to city’s residents. Time has shown that this was an excellent idea (Organizing Committee Official Report, Oslo 1952: 36).

\textsuperscript{15} A reinforcement of an image is presented for the first time through these Games. „Grenoble made a young and dynamic image for itself in the context of greatest economic growth“(Charmetant, R., 2003: 151). The equipment left in place contributed to Grenoble’s reputation of modernism and dynamism in front of a large public, attributing it with the label – \textit{the first French city of XXI century} (Frappat, P., 1991: 49).
scientific and university capacities. In Sapporo’s case, the image oriented development incentives were linked to its position of the first Asian Winter Olympic host, influencing subsequently the format of urban production interventions. The Games represented a direct stimulation effect to the evolution of both cities in these particular directions, affecting, consequently, the urban and regional development plans.

The content of regional ones was strategically associated with the expansion of transportation network that had considerable development implications with regard to cities’ metropolitan role. “The road construction associated with Grenoble Winter Games accounted 20% of the total investment in the Games. The network was designed to decentralize the region and facilitate economic growth...transforming the town into major conference and university centre”(Essex, S., Chalkley, B., 2003: 96). Similarly, the development of Sapporo’s transportation system contributed to its metropolitan growth through “...the expansion of city’s area of influence into the fringe areas and neighbouring towns and cities” (Kagaya, S., 1991: 62).

The new highways, railway links and airports thus worked as the main profit-making elements of metropolitan economic structure. In comparison to Innsbruck, the sports facilities played rather secondary importance in this respect. Especially in Grenoble, the sports installations were sacrificed at the cost of other more strategic development projects. This situation had evolved into the identification of a syndrome grenoblois, indicating the problem of underutilization and/or destruction of sports facilities in the city and surrounding mountain resorts. An insufficient integration of the city to the mountain framework can be conceived as the result of primary realization of those industrial, scientific and university aspects of city’s glocalization potential, and the main reason why sport and tourism oriented development projects had rather minimal post-event effect on metropolitan economy.

In Sapporo, the issues related to the syndrome and the absence of any strategic development role of sports installations for the local economy, resulted in explicit...
planning of facilities, using permanent structures with ensured post-event use as well as several temporary constructions, e.g. bobsleigh and luge tracks on Mt. Teine and downhill alpine skiing courses on Mt. Eniwa.

From urban development perspective, additionally to the image oriented strategies, the actual needs of the city were followed, as a result of an insufficient situation in urban infrastructure that was closely linked to considerable demographic changes.

For example, the Grenoble Commission for urban equipment prepared the Vth Plan in 1964, indicating “...that the existing urban equipment in Grenoble corresponds to the needs of a city with 80,000 inhabitants, but the actual needs are those of a city with 300,000 inhabitants. The 1968 Winter Olympics provided Grenoble with an opportunity to improve its urban facilities since they had not kept pace with town’s general growth” (Frappat, P., 1991: 45, 52).

Similar situation with rapid population growth was observed also in Sapporo. The population of the city prior to the Games was about 735,000 inhabitants (1964), but after the event in 1972 it overcame one million and until 1979 reached 1,371,108 inhabitants (Kovac, I., 2000: 23). This situation was the key compelling motive for the city council to implement the five year construction plan (1967-1971) for the modernization of the city.20

Consequently, from geographical/location perspective, the Olympic urbanism and territorial transformations in both cities were signified by very similar features. Until that time unprecedented scale of urban production was strategically situated into a suburban/peripheral location, in order to attain the territorial expansion of urban fabric as a means of providing improved conditions for growing urban population and attributing the city with a modern attractive image.

In Grenoble, this was attained through the production of Malherbe living quarter, serving as the press centre and media village during the event, and through the Olympic village constituting the first part of the so-called Villeneuve, the second agglomeration centre situated in the southern suburb of the city (Grenoble-Echirolles), that was designated for this purpose as “Zone a urbaniser en priorite” (Frappat, P., 1991: 53). In Sapporo’s case, the Makomanai-Nishioka housing development zone was the suburban/peripheral site for the major portion of urban production operations (Organizing Committee Official Report, Sapporo 1972: 244).

Besides this, the whole set of improvement and renewal actions had been undertaken over the area of both cities, e.g. the urban environmental facilities, road system and subway system to facilitate the transportation flows avoiding negative effects of air pollution and congestion, water supply and sewage system expansion

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20 In case of Grenoble, the urban production operations were also part of a five year plan, however, they had to be executed within the two years period of 1966-1967.
and refurbishment, as well as educational, medical and social welfare facilities (Kagaya, S., 1991: 65-67).  

This approach, of course, had particular consequences with regard to the local spatial strategy. The principles of urban and regional development, implemented in these editions of the Winter Games, indicate that the strategy was signified by the location of urban production and main development means within a multi-location spatial pattern, formed around the metropolitan territorial framework of host medium-sized city, approaching the location of sports infrastructure as of a secondary importance and, therefore, influenced more by the Olympic spatial strategy and the principle of monocentricity.

**Sarajevo and Calgary strategy**

The next two editions of the Olympic Winter Games, Sarajevo (1984) and Calgary (1988), confirmed further validity of this strategy, though again with some modifications pertaining to the content of both principles and forms of their realization.

The regional development considerations were once again presented in a metropolitan code, searching in both cases for a new opportunity to utilize their local capacities as glocalization potential. On the contrary to Grenoble, in Sarajevo so as in Calgary, the sports and winter tourism have been viewed as the most proper profit-making tools to be developed within the metropolitan economic structure. On the other hand, in comparison to Innsbruck with already existing winter sports and tourism tradition, they have been established as completely new structural elements.

"The traditional development of winter sports and the OCED study under the title *Possibilities and Problems of Development of Winter Tourism in Yugoslavia* (Paris, 1968), affirmed the Sarajevo region as extremely favourable for the development of winter sports, and added a new impulse to the idea of organizing the Olympic Games" *(Organizing Committee Official Report, Sarajevo 1984: 4)*. Calgary’s case also exemplifies this situation when ‘...sports and mountains have been developed as another commodity to be globally presented by the Olympic Winter Games, thus playing an important role in commercialization of the agglomeration...with an agricultural and oil industrial history’ *(Kariel, H., G., 1991: 76)*.

The essential role of sports and tourism oriented infrastructure had, of course, particular consequences for the location process. In both cases an increased attention was given to accessibility of the newly built mountain resorts, e.g. Bjelasnica, Jahorina, Igman around Sarajevo, or Nakiska Skiing Resort and Canmore Nordic Centre near Calgary, so that their viable working within the metropolitan

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21 In spite of the above mentioned differences of Winter Olympic urbanism, the basic features of suburban/peripheral location and metropolitan scale of transportation network arrangements allows to compare the type of Grenoble and Sapporo interventions to those of Rome, Tokyo and Mexico City, experienced by the Summer Games in 1960s.
structure is ensured. Through creating the strong connections between the city and its mountain framework, the city gained the necessary and desired profit-making tools and glocalization means, providing it with improved conditions to connect itself with global economic flows.

An exemplifying role in this regard played also Calgary’s Canada Olympic Park that has been developed as a new urban capacity with glocalization potential. The park constitutes an unprecedented cluster of winter sport facilities that has ever been integrated into the urban fabric of a medium-sized city, apart from typical indoor venues. A combined bobsleigh, luge and skeleton track, ski jumps, free style skiing facilities and service equipment have been situated in the western area of Calgary. “Historically, it has grown from being a small ski hill, created to provide local residents with ski lessons...to becoming a major international winter sport training facility. It provides grass root programming and serves as a major tourist attraction...capable of generating significant revenues...” (Warren, L., ThomasWest, J., 2003: 173).

The strategic role of sport in regional development programs contributed also to several changes in the urban fabric itself. From urban development perspective, the Olympic urbanism was characterized, in both cases, by large scale features producing some territorial transformations in central spaces of the city. In Sarajevo this was achieved through utilization of open spaces in the city and creation of Skenderija and Zetra sports complexes comprising the whole set of multi-purpose venues (indoor halls, speed skating oval, press centre). Similarly, the University complex and the Stampede Park were developed in central area of Calgary, to provide its residents with new sport, leisure and recreation spaces.

The urban and regional development principles implemented in these two Olympic editions, thus influenced the local spatial strategy, that was signified by the location of urban production and development means within the metropolitan territorial framework of host city, approaching the location of sports infrastructure as of a strategic importance for city and region.

Taking into account the case of Sarajevo, „...the Olympic Winter Games 1984 are a major development stimulus for city’s tourism economy. The spatial planning of Olympic area follows rational preparation of Olympic venues, in order to create the basic development nodes of winter tourism (Bjelasnica, Jahorina, Igman) representing the so-called white industry” (Cehajic, J., Marusic, B., 1984; quotation from Kovac, I., 2000: 66).

In Sarajevo, the glocalization potential appeared to be overestimated in this respect, since most of the purposely built capacities remained underutilized in spite of the well arranged territorial and functional integration of urban and mountain spaces. The specific geographical location of the city in Europe, however, contributed to considerable disadvantages in global terms. Its remote location from major population areas appeared to have more serious consequences for the development of local economy, additionally, strengthened by very strong competition of Slovenian resorts on national level.

The conception of creating the new centrally-located sports and recreation spaces in the city as well as the strategic role of sports infrastructure at metropolitan scale, traces the Olympic urbanism of Sarajevo and Calgary to the Summer Games editions of Munich (1972) and Montreal (1976), where the land-use modification of central areas was strategically followed to produce true recreational districts and metropolitan leisure with a concentrated added value (Munoz, F., M., 1997: 44).

Lake Placid (1980), Albertville (1992) and Lillehammer (1994) represent the examples of Winter Games editions when a non-metropolitan spatial strategy was associated with Olympic urbanism. The absence of dominant urban nuclei within the urban structure of host region allowed replacement of the previous centralized strategy, being based on the dominance of city’s development policy, for its decentralized and de-concentrated version.

An inter-communal cooperation of individual urban entities within the context of common regional development signifies all three Olympic cases, of course, with particular effects pertaining to the location process. Sports and winter tourism is again the unifying denominator of development, offering region the opportunity to mobilize its local capacities for globalization purposes. In each case, the glocalization potential appeared at different state.

Prior to the Games, Lake Placid represented a regionally and nationally known tourism area in current economic decline, seeking for possibility to revive and strengthen its position and global attractivity, based on the reuse and upgrading of capacities inherited since the Olympic Winter Games in 1932.

A regional development of Adirondack Park Area was executed as an inter-communal effort, with Lake Placid, Wilmington and Ray Brook communes forming the core space, where the major portion of urban production and development means was placed. Nowadays, the Olympic Regional Development Authority (ORDA) stands as an operational body behind the facility cluster, serving as “...the US leading training and competition centre, and as the main regional attraction for public users” (wwworda.org, 2004). The region thus possesses an important economic tool, comprised of the Whiteface Mt. Ski Area, MacKenzie-Intervale Ski Jumping Complex, Verizon Sports Complex at Mt. Van Hoevenberg with cross-country skiing and biathlon tracks, and the bobsleigh, luge, skeleton run, as well as several accompanying attractions, e.g. Olympic museum (wwworda.org, 2004).

Albertville, a small town in Savoie region (Rhone-Alpes department), stood in front of an inter-communal initiative to improve a global image of world’s leading winter tourism destination, using the advantages of an Olympic event. “The Albertville Winter Olympics have provided the region with an outstanding opportunity to strengthen its position on the European and international map” (Billet, J., 1991: 100).

The critical situation in regional transportation system was the key compelling motive to establish between the communes the cooperation towards common economic

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25 „The Gilbane Building Company of Providence, Rhode Island, was project manager for all construction for the XIII Olympic Winter Games...responsible for overseeing the planning design, construction, maintenance and operation of all facilities. The 1980 Olympic Winter Games involved 14 separate construction projects spread out over a 50 km² area in northern New York State“(Organizing Committee Official Report, Lake Placid 1980: 44).
development.\textsuperscript{26} The transportation infrastructure thus worked as in the metropolitan case of nearby Grenoble, in the role of strategic development element within the regional non-metropolitan structure.\textsuperscript{27} Location of these structural elements was, therefore, not focused on a single city and its metropolitan region, but it considered the communes in the whole Savoie. In particular situations, it went clearly beyond the Savoie itself, as e.g. in the case of “the project of Satolas multi-modal station acting as the key element in the regional development of Rhone-Alpes having significant effects also on national and international level”(Billet, J., 1991: 101).

With regard to the principle of urban development, the decentralized urbanism with urban production spread out over the whole region within manifold urbanization projects, can be recognized as the basic feature. Besides the strategic improvement operations in transportation network, complex modernization and rehabilitation operations have been undertaken as a reference to the desire for durable tourism development.

A hotel modernization plan brought about the renovation of 200 hotels in the region. Apart from the sports installations, the Games contributed to considerable land-use modifications in several locations. The re-qualification of industrial waste grounds in Moutiers and La Lechere, resulted in building, on the sites of disused factories, a multi-purpose space with the total area of 40,000 m\textsuperscript{2}, serving as the Main Press and International Broadcast Centre during the event, and converted after the Games into accommodation facilities, gymnasion, cultural centre, village hall and shopping centre.

Another example of a successful conversion in land-use was the transformation of Brides-Les-Bains as a summer thermal resort into a winter sports one. The renovation of the hotels, creation of a new thermal complex as well as accommodation and cable car construction between Brides and Meribel, allowed the resort, acting as the Olympic village site during the event, to diversify its clientele and benefit from tourist activity all year round (Charmetant, R., 2003: 150-151).

The Olympic urbanism strategically focused on the 14 communes directly involved in the Games (Albertville, Moutiers, La Lechere, Les Saisies, Brides-Les-Bains, Les Arcs, La Tania, Meribel, Le Menuires, Pralognan, Courchevel, La Plagne, Tignes, Val

\textsuperscript{26} “These communities all had good reason for wanting a piece of the Olympic action...by the mid 1980s there were suddenly too many empty rooms. The tourists, frustrated by the region’s poor roads and inadequate public transport, were going elsewhere, and the local economy skidded down-hill...”(The Official History of the Modern Olympic Movement: Volume 22, 1996: 110).

\textsuperscript{27} Michel Barnier, one of the head representatives of Albertville Organizing Committee described the critical situation of regional transportation netwrok, calling the Savoie “...the worst-managed region in all of France. A quarter of a million of hotel beds...had been added to the region since the 1950s, without any attempts to upgrade the transport infrastructure that would bring in the guests...the biggest problem in the Savoie was to catch up on this delay in new roads, and that was the number one reason for beginning the Olympic bid”(The Official History of the Modern Olympic Movement: Volume 22, 1996: 111).
d’Isere), thus produced important profit-making tools, using the intercommunal non-metropolitan spatial strategy. This is conceived as the key aspect in contributing, from regional and macro-economical point of view, to the dynamic image of an industrial and tertiary region (Rhone-Alpes) – one of the European grand poles of development (Ponson, C., 1991: 116).

Finally, Lillehammer (1994) comes as an example of this strategy, having, additionally, certain resemblance to the cases of Sarajevo and Calgary. The region (Oppland country) was looking for new growth possibilities that were found in sports and winter tourism. The content of regional development principle was formed around three strategic goals: to develop the region of Lillehammer as a significant destination for national and international winter sports events; to develop the region as a tourist destination; and to stimulate industrial growth through creation of new jobs especially in tourism and media industry, knowledge-based institutions and business and manufacturing sector (Spilling, O., R., 1999: 142).

The region, as e.g. in Sarajevo, possessed minimum of existing facilities for this purposes. Therefore, the location process was released from the pressure of an intercommunal competition, so as it was experienced in Albertville with most of the capacities already put in place. This provided an opportunity to place the inevitable economic tools within spatially de-concentrated and functionally decentralized pattern, but allowing to attain more compact features than it was in Savoie. The communes of Lillehammer, Hamar, Gjovik, Gausdal, Oyer, Ringsaker and Ringebu formed the core space, where the urban production was strategically aimed, leaving in each location the equipment and infrastructure designated for its future sports and tourism purposes. Thus, the Kvitfjel and Hafjel skiing resorts have been developed within the Ringebu and Oyer communes. Hamar and Gjovik inherited useful indoor multi-purpose facilities (Gjovik Cavern Hall, Hamar Olympic Oval and Amphitheatre). Lillehammer itself now benefits from its position of a gate to this purposely developed sports and tourism area, possessing several sports facilities within the Lillehammer Olympic Park (ski jumps, cross-country skiing arena, freestyle skiing venue and boblsleigh/luge track), sports education and research capacities as well as other tourist attractions (Olympic Museum, Storgatan Street, Art Museum, Maihaugen Open-Air Museum).

From urban development point of view, the Olympic urbanism was again split and decentralized between several communal projects. In general, it has contributed to

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28 Several territorial contracts have been established between the communes as a means to gain the necessary funding for their development projects, e.g. „thermal contract“ of Brides-Les-Bains and La Lechere, or the „territorial collective contract“ of Moutiers, Albertville, Tignes, Bourg-Saint-Maurice (see Billet, J., 1991: 101).

29 The efforts of mountain communes to earn the manifold benefits from becoming an Olympic site were remarkable in this case, since all the communes in Savoie possessed in general some of the capacities fitting into the event purposes. The existence of specific facilities, tradition and experience in organizing the sports competitions, strategic location, suitable natural conditions or local/communal development plan reflecting the needs of Olympic project, were decisive factors in the location decision making process. However, several private initiatives of local authorities, e.g. Meribel and Le Menuires, produced an immense pressure in this respect, resulting in final effect into originally unplanned deconcentration of urban production and other Olympic related activities (see Ponson, C., 1991: 112).
renewal of existing urban infrastructure, adding minimal new structures that would cause any significant intrusion into the urban fabric. On the contrary, environmental and legacy context of urban production operations resulted in utilization of temporary and versatile structures, being exemplary even for Lake Placid and Albertville.

Consequently, with regard to the content of these principles, the local spatial strategy implemented in all three cases can be best defined as distributing the urban production and development means within a multi-location spatial pattern, that is based around the non-metropolitan inter-communal territorial framework of host region, emphasizing “...sufficient dispersion of sites to assure a consensus of local politics and to provide an illusion of geographical compactness, important for the IOC” (Ponson, C., 1991: 112).

**Nagano and Salt Lake City spatial strategy**

After a short period of small-sized towns as Winter Olympic hosts, return of medium-sized cities, Nagano (1998) and Salt Lake City (2002), indicated that the metropolitan features within their local spatial strategies could be again identified.

From regional development point of view, the Nagano and Salt Lake strategies could be compared to those of Sarajevo and Calgary, but with the basic difference in using a well developed network of already renown winter sports and tourist resorts in cities’ surrounding mountain spaces, e.g. Hakuba, Nozawa Onsen, Yamanouchi/ShigaKogen (Nagano); Snowbasin, Park City/Deer Valley (Salt Lake City).

On the contrary to Sarajevo and Calgary, the cities, instead of creating new ones, tried to present the existing resorts as elements of their metropolitan structure. Certain centralized development policy could be thus identified, as the strategic selection of the re-known tourist destinations was undertaken in order to make a global impression and presentation of their connection to host city. The symbolic role of the Olympic media event had thus been implemented within the local spatial planning policy, additionally, supported by particular urban production arrangements.

The location process of Nagano and Salt Lake Winter Games was influenced by an intention to facilitate conditions for better functional integration of these resorts into the host city metropolitan structure. Upgrading of existing infrastructure in order to highlight their role as metropolitan economic elements, as well as addition of new installations was executed as a means of further commercialization/globalization of the city.

In this respect, Hakuba mountain resort can be emphasized, with newly built ski jumping facility, now acting as a regular international competition site, contributing to global repositioning of Nagano city. Similarly, the Utah Olympic Park (bobsleigh/luge/skeleton track, ski jumps) and Utah Olympic Oval (speed skating rink) have been built in Park City and Kearns, developing the Salt Lake metropolitan.
position as international competition site and national training centre, under the supervision of Utah Athletic Foundation (UAF).\textsuperscript{30}

Metropolitan development of both cities was also assured through major infrastructural transformations in their transportation networks. “The Great Salt Lake Plain highway network and the Interstate 15 highway were greatly improved for the Games in Salt Lake City” (Chappelet, J., L., 2003: 58). Similar arrangements were undertaken also in Nagano metropolitan area, helping the city to develop its gate position through creation of better communication connections to mountain spaces and major population areas.\textsuperscript{31}

From urban development point of view, the Salt Lake spatial strategy has been influenced by re-urbanization tendencies of Olympic urbanism. These can be exemplified through the reconstruction and re-utilization of an historical area, Fort Douglas military houses, in the central part of the city. The site has been developed, by massive infrastructural improvements, as university accommodation, serving as Olympic village during the event, equipped with new electrical power supply, water, sewer and storm drain systems, telecommunication networks as well as new permanent housing structures built around the historic “core” (Beck, W., M., 1997: 122).

In addition, important renovation and construction of hotel capacities has been executed in central Salt Lake City\textsuperscript{32}, so as building of a new “light-rail” system that represents a typical re-urbanization feature of an emphasis put on public transport developments.

Certain territorial “balancing-out” tendencies could be also derived from the strategic allocation of several new sports installations within the Salt Lake metropolitan area, e.g. E Centre Ice Hall (West Valley City), Utah Olympic Oval (Kearns), Peaks Ice Arena (Provo).

\textsuperscript{30} The situation is analogous to Calgary’s Canada Olympic Park being operated by Canada Olympic Development Association (CODA), as well as to the Lake Placid facility cluster with Olympic Regional Development Authority (ORDA) as managing institution. Similar strategy, allowing such considerable spatial concentration of winter sports facilities, will be presented in Vancouver (2010). The Athlete Centre in Whistler resort will be created, comprising the nordic events facilities (cross-country and biathlon tracks, ski jumps), bobsleigh/luge/skeleton track, necessary accommodation and other accompanying facilities. The centre will be operated by Whistler Legacy Society (WLS) as a major contribution to Canada’s continuing international sport outreach program, being central particularly to less developed nations with poor access to winter sport facilities (The Vancouver 2010 Bid Book, 2002: 197).

\textsuperscript{31} The high-speed train line between Tokyo and Nagano, inaugurated just before the 1998 Winter Games, plays the decisive role in this respect. It has substantially facilitated access to the Olympic city, which has no airport, notably for inhabitants of Tokyo wishing to spend holidays or weekends in resorts of the region (Chappelet, J., L., 2003: 58).

\textsuperscript{32} “Salt Lake City wants to develop congress and convention tourism – a highly competitive sector in North America. Several large, luxury hotels were built and most others were renovated as the Games approached. In the downtown Salt Lake City, the number of hotel rooms rose by 64% between 1994 and 2002...” (Chappelet, J., L., 2003: 57).
Similar trends to attain certain territorial balance in urban development were experienced in Nagano as well, though the development role of the structures left in place was rather overestimated. The bobsleigh/luge track, situated in the Asakawa northern periphery, has considerable problems to fulfill its role of a metropolitan economic tool, due to the difficulties to attract regular international competitions. Similarly, the White Ring ice hall in Mashima, planned as city gymnasium, now faces problematic post-event use due to intensive competition of other indoor facilities. The M Wave speed skating oval and ice hall is primarily considered in this respect. The facility, with multi-purpose capacities, is recently planned as a national level training centre, in order to obtain the necessary financial support from national government.

Besides these, the Aqua Wing, the Olympic ice hockey venue, situated in Higashiwada in the eastern part of the city, is now successfully converted into a swimming pool facility integrated within communal leisure complex.

In the southern periphery, totally new urban developments were realized. The Minami South Nagano Sports Park was built as a multi-purpose sports and event area, comprising a baseball stadium, gymnasium, swimming pool, tennis courts and other recreational possibilities. Adjacent to this leisure area, the Imai New Town housing quarter was erected as a new development project, exemplifying another re-urbanization characteristic through formation of a multifunctional urban structure emphasizing sustainable territorial intensification over sprawling land consumption pattern. Finally, the urban developments of central spaces can be also identified with regard to Nagano spatial strategy. The Wakasato area underwent major transformations through reconstruction of local cultural and convention facility, used as MPC during the event, as well as through land use modification when the former textile mill was extensively renovated for Olympic use as IBC (Organizing Committee Official Report, Nagano 1998: 270). Moreover, the Big Hat ice hall was added as new development in this area.

Combined spatial strategy: Torino 2006
An original unprecedented approach, combining spatial strategies based on metropolitan and non-metropolitan development principles, is introduced by Torino (2006). The features of e.g. Grenoble, Salt Lake City as well as Albertville are brought together, as a result of diversified development policy being currently realized within a single Olympic project.

33 “According to the general plan of Nagano City, a population growing to 430,000 is envisioned by the early 21st century, and there are various plans to realize this. The Olympic village is one of the new development projects that will enhance the growth of the entire city, and lies in a crucial area which will become a base of development for the southern part of the city...This area will become the model area for promoting new towns in the future” (Machida, I., 1997: 110).

34 Generally, it can be concluded that the reurbanization features of Olympic urbanism along with the metropolitan developments experienced in Salt Lake City and Nagano, allow to find an equivalent in Summer Games editions of Sydney (2000) and Athens (2004).
The implemented principle of regional development is based on three essential goals, all having strong glocalization potential. Firstly, the non-sport oriented developments, focused on transformation of Torino image and economic structure with an automobile industry dominance to more advanced and sophisticated economic sectors, are planned to provide the opportunities for city’s repositioning at European and global scale\textsuperscript{35}, thus making a clear link to the situation of Grenoble (1968).

Secondly, the city has intensively considered its relationship to mountain spaces. Creation of improved connections to locations with developed “white industry” (e.g. Sestriere, Bardonecchia, Cesana, San Sicario) and building of tourist capacities in the city should bring another important transformation into the metropolitan economic structure. This incentive of “Torino as an alpine capital with a long-term pact between the city and mountains” (Castellani, V., 2003) could be analogically paralleled to the Salt Lake City (2002) efforts.

Finally, the third non-metropolitan perspective makes a strong impression of the situation experienced in Albertville (1992). Inter-communal cooperation of individual mountainous urban entities within the context of common regional development can be again identified, making of sports and tourism the key agents of their glocalization potential. The plan is to realize an alpine transformation in order to develop a close and networked mountains with improved infrastructure, services and tourist identity (Castellani, V., 2003: 420).

Taking into consideration this contextual framework, it is obvious that the location process has been signified by a dual approach. From urban development perspective, the city of Turin represents a focal point for Olympic urbanism, where the major portion of urban production and development means are strategically concentrated. On the other hand, the mountain spaces constitute certain decentralizing platform, where the urbanization process is split between numerous urban entities.

The main part of Torino’s urban developments has been centered on the renovation of problem spaces within its urban fabric, having potential as a central point. “Redefinition of centrality” is thus presented as another territorial balancing-out tendency, being typical for cities’ re-urbanization period.\textsuperscript{36} According to the 1995

\textsuperscript{35} Turin aims to draw benefit from the 2006 Winter Games in order to reposition the city thanks to international-level infrastructure. It wants to change its image from the FIAT automobile manufacturing city to a more technology-oriented European regional capital (Chappelet, J., L., 2003: 60, 62). “Olympics will be held in a phase in which Turin (with its entire metropolitan area) is in the midst of intense reflection on its own future in an attempt to outline new prospects...The phase of intensive re-organization of its dominant company Fiat has put the city in a position, where it must clearly diversify the composition of its economic system and identify new fields in which to assume a role of excellence” (Dansero, E., 2003: 86).

\textsuperscript{36} So as the organizers of Torino 2006 Winter Games officially stated, the character of Olympic urbanism – of urban interventions and resulting urban transformations in the city – has been inspired by the example of Barcelona that hosted the 1992 Summer Games. The Olympic operations of the city, appearing in the same reurbanization epoch, were characterized by the existence of major urban renovation plans, clearly focused on the city’s internationalisation and globalisation. The Olympic urbanism installed by this occasion had the symbolic importance in defining the recovery of suburbs in crisis by the inauguration of new urban spaces as the driving force behind the creation of the so-called „New Centre Areas“ (Munoz, F., M., 1997: 37).
Master Plan, the “Olympic district of Lingotto” and the “Spina Centrale” are the key projects bringing the most visible contribution in this regard.

Lingotto, a former Fiat industrial plant situated in the southern part of the city, is now becoming a tertiary and quaternary multifunctional centre with high level services, resulting from the land-use modification of the several huge abandoned sites in the surrounding areas. Because of these strategic developments, the Lingotto was selected as a suitable location where the most of the Olympic functions are concentrated (sports facilities, athletes’ and media villages, IBC, MPC, etc.), thus constituting a sort of Olympic district or central site – acting as the real heart of the event from the spatial point of view (see Dansero, E., 2003).

The “Spina Centrale”, on the other side, has been launched as a means to bring important re-structuralization to its urban fabric and identity, by creating a north-south axis which connects the Lingotto area with the historic centre. The line provides new opportunity spaces for economic activities that contribute to city’s metropolitan growth. From the Winter Games perspective, it has brought above all important improvement in transportation network, facilitating an access to the Olympic district.

As it has been already mentioned, the spatial strategy pertaining to the mountain spaces is modified from that of the Turin city. Generally, the urban developments have been distributed within two basic spatial systems. The communes of high Susa and Chisone valleys constitute the first system, which benefits from wide range of improvements in tourist infrastructure (in some cases reusing abandoned buildings and areas), including also sports facilities. The inter-communal network of Bardonecchia, Sauze d’Oulx, Cesana, San Sicario, Claviere, Sestriere and Pragelato are arranged in a functionally separated system of “Olympic places”, where the so-called “snow events” will be hosted during the Games.

The second system is formed around the territorial framework of mid and low valleys of Susa, Chisone and Pellice, where the “Olympic midlands” have been created as certain service area, logistically touched by the event. In these areas several urban transformations take place following different development modes: industries linked to automobile sector and SMEs, a primary sector with environmentally high quality agriculture, and tourism based on “holiday-house model” and the enhancement of rich local environmental and cultural heritage (Dansero, E., 2003: 88).

In both systems, so as in the case of Albertville, the improvements in transportation infrastructure are the decisive development means connecting the mountain communes and their economic tools with the city of Turin and other concentrations

37 Instead of a structure that had remained essentially pivoted on a single centre, a system of functions aligned along a north-south axis has been proposed with new highly attractive functions (such as new library, theatre, the headquarters of Piedmont Region) as an addition to the existing ones (such as the law courts). The fact that other activities of metropolitan importance are located around the same axis and that towards the south there is the Lingotto area (with Fiat’s central management building, fair and exhibition centre, shopping and leisure centre, and university departments), it is easy to understand that this line makes a major change to the city’s gravity centre, destined to act as a counterweight to the historic core (Dansero, E., 2003: 86).
of potential consumers. The high-speed railway line between Turin and Lyon, passing directly through the Susa valley, is one of the key regional development projects in this regard, that is planned to connect the mountain spaces with major population areas.

Torino 2006 thus represents the first Winter Olympic edition successfully integrating the spatial strategies which are typical for summer/urban as well as for winter/mountainous events. The implemented principles of urban and regional development have thus influenced the final distribution of urban production and development means within a multi-location spatial pattern, which brings together two different spatial strategies based on different development principles.

**Evolution of Olympic spatial strategy**

Identification of a spatial strategy within Olympic agenda is not an easy task. The IOC’s vision or concept of the Games was from the very beginning focused strategically on the programme and other organizational aspects of the event, related to the smooth running of competitions in each sport discipline. The indications of how the Games should be organized in spatial terms were rather neglected or limited to a very general and brief notes within the IOC rules. Probably, one of the first informations pertaining to this issue can be dated back to 1932. The IOC’s Rules, Regulations and Protocol for the Celebration of the Modern Olympiads and of the Quadrennial Olympic Games refered to this issue as follows: “The events must all take place in the town chosen, either at the stadium or in its neighbourhood. The only exception which can be made is in the case of nautical sports when geographical conditions shall make it necessary.”(IIIrd Olympic Winter Games Lake Placid, Official Report, 1932: 23)

It may be said, that this approach to the spatial aspects of the event is primarily derived from Coubertin ideas based on the spatial arrangement of ancient Olympia remaining as an ideal model. The initial point for the IOC was to revive the ancient tradition together with its festive and intimate atmosphere. This rather idealized motivation is reflected in IOC’s brief definition – “in the main stadium or in its vicinity” (Wimmer, M., 1976: 78) – representing a starting point with regard to the Olympic spatial strategy.\(^\text{38}\)

In spite of its quite superficial character, the basic confines of this strategy – the territorial framework of the host city – can be viewed as the first limiting factor in geographical terms. The role of a single city within the Olympic agenda is seen in providing the necessary environment facilitating the IOC in promotion and presentation of its value system. The city is considered as the best framework, the modern world can offer, in order to experience benefits of the so-called *Olympic spirit*.

\(^{38}\) A modification of this regulation is exemplified in the Questionnaire for cities applying to stage the Olympic Games, 1957: “...all facilities should not be far away from each other and within easy reach from the Olympic village...“(Wimmer, M., 1976: 78)
From a content point of view and for our discussion, it is essential its reference to the specific atmosphere of the event based on the principle of unity, which is created and depending on the subjective perception of each individual taking part in the Games. In geographical terms, this principle is considered as the key element of the whole concept of Olympic spirit. According to the Olympic Games Study Commission “...the principle of unity in space and time or One Games-One City should be maintained in order to ensure that the Games remain the world’s greatest sporting event and to guarantee the athletes’ experience remains intact” (Interim Report to the 114th IOC Session, 2003: 17). These are the two basic elements which have made the Games a universal success. The promotion of the Olympic spirit is therefore the strategic point within the Olympic agenda, having its spatial connotation in creating the conditions which facilitates mutual interaction of athletes and other members of Olympic family to share such values like friendship, tolerance, fair-play, multiculturalism etc. From the IOC point of view it is then the optimal spatial concentration of Olympic family the right way how to secure the opportunities for such experience.

Consequently, the concentration in space and time, based on the principle of unity, along with the territorial constraints of a city, becomes the key factor affecting the spatial organization of the Games, from the Olympic agenda perspective, additionally giving the Olympic spatial strategy the necessary human scale, for the IOC so typical and essential feature of its value system.

Towards the principle of monocentricity

The evolution of the Olympic spatial strategy is further depending on the evolution of the event itself. The structural characteristics of the Games since the inaugural period have started to change dramatically. However, even during this phase of the event, its natural, territorial and infrastructural demands could seldom cope with the IOC's vision of ideal location. Taking into account the case of the Olympic Winter Games, there can be found several hosts exemplifying this situation.

The environmental specifics and demands of the Winter Games compelled the organizers of Lake Placid (1932) to find the location for bobsleigh run outside the host town. Similarly, the absence of suitable natural conditions for speed skating and ski jumping within the territorial limits of Cortina d'Ampezzo resort resulted in breaking the Olympic spatial strategy, by siting the venues on lake Misurina (12 km) and in Zuel (2.5 km).

The territorial requirements of the event can be suitably exemplified by Squaw Valley, hosting the 1960 Winter Olympics. The local mountain area was offering a unique platform for the IOC to implement its spatial strategy and vision of the event, since there had not existed any urban structure prior to the Games. The space, provided by the valley itself, was the only territorial constrain, giving the opportunity to create an „Olympic city“ and reanimate the atmosphere of ancient Olympia. However, dimensions of the Winter Games were a decisive factor, compelling the
organizers to replace the cross-country events outside the valley to McKinney Creek (27 km). Instead, the necessary parking capacities were built in the location with suitable environmental conditions, originally reserved for the skiers.

Squaw Valley is also a good example with regard to the immense infrastructural demands, resulting in the absence of bobsleigh competitions in the Olympic programme, due to the considerable costs of the installation and its problematic utilization after the Games. In case of Cortina, the requirements for reserve/auxiliary sports facilities led to the utilization of the ice rink in Bolzano and the speed skating venue in Madonna di Campiglio. Several training-reserve sites were also prepared in Garmisch-Partenkirchen, with one venue for ice events located outside the host city on Ferchensee near Mittenwald – „reachable by train“.

Furthermore, the accommodation of athletes, media and other members of Olympic family, along with the spectators and visitors, represented the most problematic infrastructural demand in this phase of the Games. In Squaw Valley, the housing capacity was able to cover the needs of athletes, while media representatives had to be accommodated in the resorts around Lake Tahoe and in the city of Reno (70 km). Even in cases like Cortina and Lake Placid, the accommodation requirements exceeded the local capacities. While the latter had solved the situation by making a territorial cooperation with neighbouring town of Saranac Lake, the former had used the capacities of the whole „Olympic district“ in order to house the extended Olympic family.

The accommodation of spectators and visitors had also brought various solutions with interesting spatial implications. In 1932, the lack of necessary infrastructure led into a decision to incorporate in the general housing plan neighbouring communities within a radius of 100 miles of Lake Placid. Furthermore, a very interesting arrangements were made “…to house at least 1000 visitors in Montreal, which under the special railroad schedule planned during the Games, was only 3 and half hours distant from Lake Placid“(IIIrd Olympic Winter Games Lake Placid, Official Report, NY/USA, 1932: 112). The organizers thus placed the event, strategically, beyond the urban, but especially, behind the national boundaries, initiating the first cross-borderer cooperation in the Olympic history.

In Garmisch-Partenkirchen, the organizers implemented an excellent transport plan – *Verkehrsplan* – as a solution of spectators’ housing. A well managed transport

39 „On January 29, 1929, Dr. Deney, addressed the weekly meeting of the Saranac Lake Rotary Club and explained the project to secure the III Olympic Winter Games of 1932 for Lake Placid. He stated that Saranac Lake as one of communities to benefit greatly from the Games should help Lake Placid in housing the contestants and spectators and in any other way possible.“(IIIrd Olympic Winter Games, Official Report, NY/USA, 1932: 47)

40 The notion of Olympic district refers to a specific temporary territorial structure which is based on spatial cooperation of Cortina (host city), Pocol (site of radio transmission station), Zuel and Misurina (sport venues). „Accommodation for the teams of the 32 countries taking part in the VIIth Olympic Winter Games was found in 28 different hotels within Olympic District.“(VIIth Olympic Winter Games, Official Report, Cortina d’Ampezzo, 1956: 273)
system gave possibilities to everyday commuting of visitors from surrounding cities of Munich, Augsburg and Innsbruck, as well as other winter resorts in the area. In addition, an exceptional possibility of direct fast-train connection from Berlin was promoted, enabling to reach the host city in 12 and half hours (IV. Olympische Winterspiele 1936, Garmisch-Partenkirchen, Amtlicher Bericht, 1936: 30).

Also in Cortina, besides the Olympic district itself, the organizers created another temporary territorial structure as a response to an insufficient housing capacity. The so-called “Tourist accommodation area” of Cortina listed some 25 localities situated at distances ranging from 10 km (S. Vito di Cadore) to 70 km (Sappada), but also including 157 km distant city of Venice (VIIthe Olympic Winter Games, Official Report, Cortina d’Ampezzo, 1956: 496).

Finally, similar solution was found in Squaw Valley, where the major portion of housing was outside the resort itself, since there were only approximately 350 public accommodations at the Olympic site (VIIIth Olympic Winter Games, Squaw Valley, Final Report, 1960: 45). Additionally, the transportation plan, implemented during the event, facilitated convenient daily accessibility of the Olympic city with San Francisco (320 km) and gave the event another spatial dimension.

These few examples show quite clearly how the requirements of the event were difficult to meet under the conditions and capacities of mountain resorts as a typical host territorial framework in the inaugural period of the Winter Games. The spatial organization of the Olympic functions was seldom arranged according to the ideal of centralized concentration, defined by the principle of unity, which signified the Olympic spatial strategy. The resorts of Chamonix and St. Moritz were the only hosts able to meet these requirements. On the contrary, the spatial deconcentration was a typical feature, appearing in this phase, though it is more often attributed to the era of medium-sized cities.

**Principle of monocentricity**

The arrival of medium-sized cities can be viewed as a response to growing dimensions of the Games, bringing the solution to its infrastructural and economic issues in particular.

The so-called *urbanization effects* of relatively big urban nuclei could offer a high concentration of population as an important human resource, in terms of necessary labour force for the Games and as a source of financial incomes, seen in inhabitants’ role of consumers and tax payers. This has been also closely related to a better absorption of Olympic installations in the post-event period. Moreover, from an organizational point of view, the urban advantages provides a larger scale and diversity of infrastructure and varied economic structure, which constitutes an inevitable background for the Games, thus solving most of the problems that the mountain resorts had to face.
However, this solution had considerable geographical implications. The lack of necessary natural conditions within the urban territorial framework was the main obstacle to arrange the Olympic functions in a centralized and concentrated shape. Since Innsbruck 1964, the deconcentration becomes a leading feature in Winter Games’ spatial organization, though not officially stipulated by the IOC.

The motto “Innsbruck and environs” exemplifies how the spatial arrangement of the event overcomes the confines of urban core, creating a territorial cooperation with mountain resorts and other settlements in its surroundings. 41

The Games, therefore, became organized within a specific territorial structure which is applied in the existing settlement network of hosting area. It can be understood as a temporary multi-location site with more or less significant dispersion of functions. From this point of view, the structure can be seen as a functional system having some common features with urban forms which in certain development stages “...work more as one city and their settlements have an analogous role to the quarters of traditional compact city...” (Musil, J., 1977: 107).

These are the features of a functional urban region also named, according to the Greek urban planner Doxiadis as daily urban system. It can be defined as a contiguous area which is relatively closed with respect to its inhabitants daily commuting to places of work, leisure and residence.

In these terms, the Olympic scene of a medium-sized city might be viewed as a temporary equivalent to this system, where the Olympic family members commute to their places of work/production, leisure and residence, which are distributed within the host territorial framework. In fact, it represents a new form of Olympic city attaining certain metropolitan/regional dimension, resulting form the process of spatial deconcentration.

The IOC discussed this issue by several occasions. However, it was at first in 1977, when certain modification of the Olympic spatial strategy could be observed. The main stimulus for the international dispute was the growing gigantism of the Games which had led to several attempts and proposals in changing the spatial organization of the Winter Games. The problem of gigantism became an extremely insisting phenomenon that threatened the existence of the event itself.42

The 79th IOC Session in Prague was the place of discussion as a reaction on Swedish request that “...not a city, but a country, an area or several countries could arrange to host the Games...” In reaction, the IOC president stated “...there was a general sympathy for spreading the Games over an area...” and that “...this rule might be

41 This was also a typical feature of the 1952 Winter Games held in the city of Oslo, which is found as an exceptional host in the inaugural phase of the Winter Games.

42 “The gigantism which had infiltrated Winter Games over the past decades presented the greatest threat to these Games. The high costs shocked any would-be candidates and it was inevitable that one day no town would be prepared to take on Winter Olympics’(XII Olympische Winterspiele Innsbruck 1976, Final Report, 1976: 181).
changed in order to stop the growing gigantism of the Games” (Minutes of the 79th Session of the IOC, Prague, 15-18 June 1977: 16).

The IOC, therefore, approved to stage the events requiring specific natural conditions in different locations if the one Olympic centre is maintained and the deconcentration does not exceed an acceptable level (Prochazka, K., 1987: 32). The Olympic spatial strategy had thus been modified in terms of breaking the territorial confines of city, playing the role of a central location. The principle of monocentricity can be considered as a compromised redefinition of the key principle of unity, moderating the IOC’s vision of spatial organization of the event.

**Principle of clustering**

However, the history had proved that this modification can be hardly viewed as beneficial asset with regard to the positive future of the event. The main problem of gigantism was rather more strengthened and extrapolated into operational and ecological difficulties. The monocentric form of the Olympic scene achieved, namely, the clear characteristics of spatial zoning with explicit separation of functions over space. The strategic position of city as an Olympic centre was based on the location of so-called *Olympic central functions* concentrated exclusively within the urban territorial framework, while the most of athletes’ activities had to be exported beyond its spatial boarders.\(^{43}\)

This situation resulted in considerable daily mobility of Olympic family members (especially athletes and media representatives), which became more complicated with growing distances between Olympic sites. Consequently, the Olympic scene, applied within the monocentric context of medium-sized city, had achieved the form of functional megastructures. Its features might be viewed as synonymous to those of an urban metropolis, resulting from the functional zoning process, inherited from the industrialization period, when the *Athens charter* was approved.\(^{44}\)

The *industrial metabolism* – a pantographic enlargement of zoning – characterizes the anti-urban, anti-environmental and anti-human functioning of urban organism, signified by complicated and gigantic transport cycles, leading to maximal inefficiency and exploitation of space, time and energy (Krier, L., 2001: 81).

The anti-urbanity of strategic operational/spatial management difficulties and the anti-humanity of negative psychological and social effects became the main factor influencing the spatial organization of the Winter Games in the following years, as they were inherently related to the key Olympic principle of unity. The conditions

\(^{43}\) The Olympic central functions are defined according to the location of venues of Olympic village, International broadcast and main press centre (IBC/MPC), opening and closing ceremony and the IOC and OCOG headquarters.

\(^{44}\) The Athens charter was signed in 1933 at the International meeting of CIAM – an union of architects promoting functional urbanism, strictly emphasizing the material aspects of urban life before the psychological, social and biological factors.
provided by monocentric megastructures were considered as affecting detrimentally the precious human atmosphere and experience of Olympic family. The living conditions of athletes became more stressing due to the spatial separation of production and residential sites within Olympic scene. The gigantism, or the growing dimensions which attributed the Games so desired image of the world’s greatest sporting event, thus appeared to jeopardize the Olympic spirit as the strategic point of IOC agenda.

In order to stop the negative development, a new principle of clustering has been defined, which could be understood as a compromise between three aspects: proximity of athletes’ accommodation to their competition venues, minimal travel times between Olympic sites and the Olympic experience of athletes (Report of the IOC Candidature Acceptance Working Group to the Executive Board of the IOC, 2002).

In effect, from a geographical perspective, this approach enables a deconcentration of athletes’ production (competition venues) but also their residence in the form of auxiliary villages. This situation stimulated formation of functional subsystems (clusters) within the Olympic scene, with the accommodation cores and competition venues spatially clustered around them. The principle of clustering thus represents a step towards functional decentralization of the Games, at least from athletes’ perspective. The monocentric structure of the Olympic scene thus attains the first modifications towards polycentricity. 45

In fact, these changes reflected the transformations of urban reality, where the general trend of “decentralized concentration” (Musil, J., 1977: 107) or “spatial deconcentration” leads “…to a reformulation of conditions, characteristics and spatial forms of centrality” (Munoz, F., M., 2000:1). The historical modifications of the Winter Games spatial strategy has also shown how the reformulation of an Olympic centrality has evolved through the traditional spot concentration of a single-location site to a multi-location site of regional/metropolitan dimension. The contemporary Olympic city (Olympic scene) has achieved its new territorial form, where the central/decentral considerations are derived from the location of Olympic central functions, and the traditional nodal position of city, within the monocentric structure, has been replaced by its rather symbolic role of a “flagbearer”, that represents a decentralized structure of an area, exceeding its urban boundaries.

Of course, as it has been already mentioned, these territorial transformation tendencies have also significant environmental implications. The concept of sustainable development, which became an integral part of Olympic agenda46, has also substantially affected the location principle of clustering.

45 These characteristics signify the Torino 2006 and Vancouver 2010 Olympic scene, where the so-called urban and alpine subsystems will be formed, with the ice events spatially organized within the urban structure of host city and snow events situated within the territorial context of mountain resorts, clustered around the central residential site, e.g. Sestriere (in Torino’s case) and Whistler Olympic Village (in Vancouver’s case).

46 „In accordance with the philosophy of Olympism, the Olympic Charter….. and in view of its universal nature, the Olympic Movement has accepted that it has a special responsibility of sustainable development…For this
In order to minimize the negative environmental impacts of Olympic venue construction, the maximal possible use of existing infrastructure is recommended and supported by the IOC, enabling the utilization of remote facilities spread across the hosting area. The deconcentration is therefore an inevitable consequence reflected in the final shape of the Olympic Games territorial framework.

Furthermore, the location process and the selection of future Olympic sites must be well thought in advance, in order to ensure the positive legacy and long-term utilization in the post-event period, thus minimizing possible ecological burden for the environment of hosting area (problem of “white elephants”). In this respect, “...a reasonable dispersion of the sites facilitates their use and greatly contributes to durable development...” (Charmetant, R., 2003: 151).

Besides the construction and legacy factors, another relevant environmental implication can be recognized in the functioning of the Olympic scene itself. “Agenda 21 proposes reduction and elimination of any non-sustainable production and consumption patterns” (DaCosta, L., 2002: 75). From this point of view, the abovementioned industrial metabolism as a negative example of anti-environmental functioning of monocentric megastructures, represents the clear non-sustainable pattern. Spatial deconcentration and decentralization, experienced in today’s urban world, substantially facilitates improved conditions from this perspective. Olympic scene, based on the principle of clustering, also shows certain confined form of organic structure with blending of Olympic activities, and indicates a positive shift from territorial zoning and explicit spatial separation of functions. In this regard, the “clustered” Olympic structure can be considered as attaining the first progressive signs of a sustainable pattern with postindustrial metabolism.

The Olympic spatial strategy in its contemporary form is therefore a useful means, which steers the Winter Games spatial arrangement slowly towards the pro-environmental and pro-human forms of polycentric structures. The principle of clustering, exchanging its strictly monocentric forerunner in a close cooperation with the concept of sustainable development, is the latest modification in understanding the notion of Olympic spirit and another redefinition of the principle of unity, with its geographical connotation, seen in the spatially deconcentrated and partially functionally decentralized territorial structure of regional scale.

reason, the IOC has decided that the Olympic Movement should have its own Agenda 21 which is the basic document proposing the actions to be undertaken“ (Tarradellas, J., 2003: 74).

47 Taking into account the issue of venue selection and construction, the Olympic Games Study Commission, aiming to minimize the Games’ costs and support the sustainable development, recommended following principles: use existing venues where possible; build a new venue only if there is a legacy need; if there is no legacy need, seek a temporary solution (Olympic Games Study Commission, Report to the 115 th IOC Session, 2003: 23).
Synthesis

Olympic urbanism model of a mountain resort

In the inaugural period, the Olympic urbanism was strategicaly influenced by a mountain resort as the key factor.

From the perspective of the host city agenda, development of a resort around winter tourism as a new leisure/consumption activity and their promotion to the citizens of nearby major urban spaces as potential visitors and consumers, acted as the main development intention or need towards the process of urban production. Additionally, considering the small size and urbanity (urbanisation level) of the resorts with their relatively one-sided orientation of economic structure, signified by the low scale of urban production and minimal infrastructural transformations, the spatial strategy and planning of these towns could be easily based around principles of functional centralisation (monocentricity) and spatial concentration (territorial compactness).

These are the features, which signified also the Olympic spatial strategy. The main concern of IOC was a successful introduction of the Winter Games and promotion of winter sports practice within the context of Olympic spirit as a strategic point of its agenda. This concept resides and is based on a vision of mutual interaction of Olympic family according to the principle of unity in space and time, as it was experienced in ancient Olympia. The territorial framework of cities and mountain resorts provided conditions perfectly fitting into this vision. Moreover, since the dimensions of the Winter Games, in this period, posed relatively little demands on territories of host resorts, the Olympic functions could be well arranged in functionally centralised and territorially compact form of an ideal Olympic city. This situation, however, was typical only for Chamonix 1924 and St. Moritz 1928, 1948.

In these editions of the Olympic Winter Games, the Olympic urbanism implemented a model, which harmonised needs of the event and host territory within a single-location spatial pattern, producing Olympic scene in the form of an Olympic centre concentrating all Olympic functions.

For other resorts, Lake Placid 1932, Gramisch-Partenkirchen 1936, Cortina d'Ampezzo 1956 and Squaw Valley 1960, the fast growing dimensions of the event were more demanding on their territories. Therefore, a spatial deconcentration of Olympic functions, from Olympic centre into Olympic sites, was an inevitable consequence - a feature that was more pertinent to the OUM of medium-sized cities.

Olympic urbanism model of a medium-sized city

The type of model that was implemented in the Winter Games editions of Oslo 1952, Innsbruck 1964, 1976, Grenoble 1968, Sapporo 1972, Sarajevo 1984, Calgary 1988, Nagano 1998 and Salt Lake City 2002, indicates that Olympic urbanism harmonised needs of the event and host territory within a multi-location spatial pattern.

It means that the urban production – building of event-related infrastructure and allocation of economic development instruments – went clearly beyond the territorial
limits of a single city. Moreover, the form of Olympic scene shows that Olympic urbanism produced, except the spatially deconcentrated also a monocentrically organised territorial structure, signified by a functional dominance of Olympic centre (city) concentrating substantial portion of Olympic functions, while the minimal number of Olympic sites (resorts), situated in cities’ mountain surroundings, accommodated the “snow part” of athletes’ production that had to be “exported” outside the city due to the absence of suitable natural conditions within its territory.

Olympic scene thus attained a form with certain regional/metropolitan scale, based on a polarised system of an urban territorial framework of medium-sized city and its relation to surrounding mountain spaces.

From the host city point of view, this situation was strategically determined by centralised city-oriented development policies, aligned to the process of globalisation/selling the city on global market, focusing on production of new economic development instruments and improvement of urban environment quality, addressing cities’ desire for a new image and metropolitan growth. The growth of medium-sized cities was strategically thought in terms of territorial expansion of urban fabric and creation of new functions within their metropolitan structure. The cities were in an urbanisation period, when further progress of their urban organism was basically attained through spatial deconcentration of their monocentric functional structure. It means that the urban production operations and their location within the territory of the city and the settlement network of its metropolitan area, is motivated by a principle of functional centralisation (monocentricity) and spatial deconcentration (territorial incompactness). The mountain spaces and sports infrastructure played dual role, in this regard.

In the first one, Olympic urbanism approached the mountain spaces and sports infrastructure as of a strategic importance for the development of host city. The cities of Oslo, Innsbruck, Sarajevo and Calgary implemented a large-scale urbanism type focusing on development of new mountain resorts within their metropolitan areas, in order to support their winter sports and winter tourism tradition (e.g. Oslo, Innsbruck), or to build up a brand new development instrument within their economic structure (e.g. Sarajevo, Calgary). Nagano and Salt Lake City implemented Olympic urbanism that articulated creation of a connection between the city and the already existing and well developed mountain spaces to facilitate cities’ economic and metropolitan growth.

On the other side, there are the cases of Grenoble and Sapporo, where Olympic urbanism approached the mountain spaces and some of the sports infrastructure as of a secondary importance, and conversely, other non-sport oriented development policies were strategically considered. The cities built up their urban growth on creation of an image of dynamism and modernism. The result of this very expensive urbanism model was an underutilisation and destruction of sports facilities in the city and mountain resorts (Grenoble), or dismantling of sports constructions and subsequent reforestation of the sites (Sapporo). Substantial portion of urban production – only 9% (Grenoble) respectively 5% (Sapporo) of total investments
were spent on sports installations – resulted into an unprecedent massive transformation of urban fabric, using a suburban/peripherally located urbanism, and into extension of transportation network, as a means providing the cities with improved conditions for their growing population and extension of their area of influence towards the neighbouring towns and cities.

From the Olympic agenda perspective, the form of Olympic scene was influenced by the growing dimensions and demands of the event that could be met more properly by the medium-sized cities, providing important urbanisation effects (labor pool and other human resources, financial sources, better post-event absorption of infrastructure, varied economic structure as a service background for the Games). However, the lack of necessary natural conditions within the urban framework was the main obstacle to arrange the Olympic functions in a centralised and concentrated form. Since Innsbruck 1964, the deconcentration becomes a leading feature of Winter Games’ spatial organization, officially stipulated within Olympic agenda in 1977. The OSS had thus been modified in terms of breaking the territorial confines of city and application of the principle of monocentricity as a compromised redefinition of the principle of unity in space and time, moderating the IOC’s vision of an ideal Olympic city.

Regional/inter-communal Olympic urbanism model
As the title indicates, Olympic urbanism implemented a model, which harmonised the needs of host territory and the event, again, within the multi-location spatial pattern.

The model exemplifies the Winter Games editions of Lake Placid 1980, Albertville 1992 and Lillehammer 1994. Its main difference, comparing to the previous one, resides in its regional, but non-metropolitan and unpolarised character. The Olympic scene, produced by this OUM, is applied in the territorial framework of regions like Adirondack Park Area (1980), Savoie (1992) and Oppland (1994) with an urban structure of the whole network of small-sized towns, lacking any dominant urban nuclei and being located directly in mountain environment. It arranges the Olympic functions in the form of functional decentralisation and spatial deconcentration (Lake Placid, Albertville), where the functional dominance of Olympic centre was substantially weakened through deliberate dispersion of athletes’ and media production and residence of Olympic family among the different number of Olympic sites, or more traditionally in the spatially deconcentrated monocentric form with Olympic centre gathering major portion of Olympic functions (Lillehammer).

From the perspective of host city agenda, this situation was influenced by the sports and winter tourism-oriented development policy, based on certain territorial pact or an inter-communal cooperation and integration of individual urban units within the context of common regional development. Their spatial strategy was, therefore, inevitably steered towards the deconcentrated and decentralised features.

The position of IOC and its agenda, in relation to this type of OUM, is rather difficult to specify. The principle of monocentricity that still signified OSS was clearly applied only in the urbanism model of Lillehammer 1994. The other two editions of Lake
Placid 1980 and Albertville 1992, represented, from the Olympic agenda point of view, a kind of experiment of a return to the dimensions and intimate atmosphere of the inaugural events, responding the issue of strengthened gigantism of monocentricly organised Olympic scene.

**Combined Olympic urbanism model**

The last model that can be observed, so far, represents an approach combining the models of medium-sized city and inter-communal cooperation.

The Winter Games of Torino 2006 exemplify situation of this model, resulting into formation of Olympic scene that acts as a polarised system of urban and mountain spaces, based on the territorial framework of a medium-sized city and a network of mountain resorts and towns. The Olympic scene thus attains both metropolitan and non-metropolitan features. The Olympic functions are organised in spatially deconcentrated and functionally decentralised way, forming a sort of functional clusters. So-called urban and alpine subsystems have been formed, with the urban one clustering the residence and the “ice-part” of athletes’ production and the media residence and production within the urban structure of Torino and Pinerolo, and the alpine one consisting of two clusters within the territorial context of mountain resorts that encompass the “snow-part” of athletes’ production spatially clustered around two central residential sites – Sestriere and Bardonecchia.

From the host city point of view, this situation has been affected by the different metropolitan and non-metropolitan development policies, unified within a single Olympic project:

- the non-sport oriented development plans focused on transformation of city’s image and economic structure towards a more advanced and sophisticated sectors, in order to provide the opportunities for city’s repositioning on global scale, thus making a clear link to the strategy of Grenoble, but using a decentralising approach of a “ballancig-out” urbanism that regenerates rather than extends the existing urban fabric as a means of city’s metropolitan growth;

- the city’s efforts to build up the image of an alpine capital with a long-term territorial pact between the city and mountains through creation of improved connections to the mountain locations with developed “white industry” (e.g. Sestriere, Bardonecchia, Cesana, San Sicario) and building of tourist capacities in the city, in order to bring a new impulse into the metropolitan economic structure, as a parallel to the efforts of Salt Lake City;

- the non-metropolitan development policy with inter-communal cooperation towards an alpine transformation and development of close and networked mountains with improved infrastructure services and tourist identity, implying the use of decentralised and deconcentrated strategy of Albertville.

From the perspective of Olympic agenda, this model has been influenced by several factors.
The first one was the issue of increased gigantism of the event resulting from the functioning of the Olympic scene, based on the principle of monocentricity. Its characteristics of spatial zoning with explicit separation of functions over space resulted into considerable daily mobility of Olympic family, which became more complicated with growing number and distances between Olympic sites. These conditions had negative psychological and social consequences, threatening the precious human atmosphere and experience of Olympic family - specifically the athletes, thus jeopardising the Olympic spirit as the key point of Olympic agenda.

This negative development has been partially avoided by a new principle of clustering, defined as a compromise between the proximity of athletes’ accommodation to their competition venues, the minimal travel times between Olympic sites and the Olympic experience of athletes.

This principle represents an official stipulation of partial functional decentralisation within Olympic agenda (from athletes’ perspective) and indicates the first modification of OSS towards the principle of polycentricity.

These decentralisation tendencies have been at the same time influenced by growing importance of sustainable development within Olympic agenda, when the maximal possible use of existing infrastructure, oftenly remote and spread over the hosting area, and reasonable dispersion of the sites, is recommended and supported by the IOC, in order to minimise the negative environmental impacts and ensure the positive legacy and long-term utilization in the post-event period. The IOC thus tries to attain a new vision and image of the ideal Olympic city, leaving the non-sustainable pattern of monocentric megastructures and tending towards pro-human and pro-environmental forms of polycentricity.

**Conclusion**

The comprehensive overview of OUMs indicates that the Olympic spatial strategy always adapted its location principles according to the changes within host city agenda. The IOC’s changing apprehension of an ideal Olympic city always responded to the evolution trends of urban world. Olympic urbanism reflected the basic approaches to spatial organisation and development of our cities throughout the decades, taking into consideration its major challenge – “...to make the Olympics fit the city and not the city fit the Games” (Chernuchenko, D., 1994: 28)

In this regard it is interesting to see the decentralising tendencies in cities’ development policies, using the approaches based on the concept of “Ecocity” or the principles of “New urbanism” (Krier, L., 2001). Their focus is the creation and regeneration of urban organisms according to sustainable, organic, human-scaled, people-centred features, where the functional zoning is replaced by blending of urban functions, transforming our cities to a polycentric system of functionally self-contained urban units.
This situation indicates what we can expect in the future with regard to the IOC’s spatial strategy. The expressions of its president J. Rogge like “…back to well arranged structures and Human Games” may be viewed as a reaction to the abovementioned tendencies and imply the possibility that the principle of clustering can be exchanged for the principle of polycentricity. The ideal Olympic city (form of Olympic scene) would be thus transformed into a networked territorial structure that multiplies several functionally completely self-contained subsystems, concentrating the whole set of Olympic functions within improved conditions, facilitating the experience of Olympic spirit.

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