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The spatial development of sports facilities within the cities: a Central European case study

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Abstract. As a result of the increasing significance of sports which can be observed in the recent decade, researchers in the field of the urban geography have also begun to pay more attention to the spatial location and development of sports facilities within the settlements. Using the example of Debrecen, one of the outstanding cities of Hungary from the point of view of sports, in addition to describing the development of the sports facilities, the aim of present paper is to describe the spatial development of sports facilities, to classify them into different categories and to observe the factors influencing their spatial development. As a result it can be said that in the case of the larger sports facilities locations on the edge of the city or in suburbs dominated at the time when the projects were completed, but these facilities may be rather considered today as located within the city boundaries. As far as smaller sports facilities are concerned, a central location is found in a few cases, but the most important characteristic, both at the time when the projects were completed and today, was location within the city. If we consider the factors influencing the location of sports facilities, the most important role, similarly to international trends, was naturally played by the location of the available plots; in addition, accessibility and the proximity of the market of users were also determining factors.

Keywords: sports facilities, location, influencing factors, Debrecen

Introduction

As a result of the increasing significance of sports which can be observed in the recent decade (Ilieș et al., 2014), researchers in the field of the urban geography have also begun to pay more attention to the spatial location and development of sports facilities within the settlements.

According to researchers, three categories can be identified with respect to the location of sports facilities within cities (Thornley, 2002):

- location in the city centre or its close proximity;
- location within the city;

-location on the edge or suburbs.

The *first type* primarily emerged due to historical reasons, since in this case the facility was located on the edge of the settlement being formed in the past; however, due to the growth and spatial expansion of the settlement, the location of the facility can be regarded today as central. On the other hand, from the early 1990s, due to the importance of the renewal of the deteriorated inner city economies, primarily in the United States of America, this option came to the foreground once again (Turner & Rosentraub, 2002; Nelson, 2007, 13). The results of the most detailed survey (Newsome & Comer, 2000) on this topic supply evidence for the change in a very convincing way: by 1997, more than 50% of all sports facilities could be regarded as centrally located, and in two sports (handball, ice hockey) this proportion was even higher.

Suburban or edge of the city locations became very popular in the United States of America in 1960s and 1970s due to several reasons (Bale, 2003, 208; Barghchi et al., 2009). Firstly, due to the difficulties inherent with the expansion/modernisation of existing facilities, an obvious option arising in the 1960s, also in line with the decentralisation of cities, was the construction of facilities on cheap suburban plots, and the economic efficiency was further enhanced by the fact that the property on which the previous facility was located could be sold at very favourable prices. Secondly, these facilities were constructed in areas close to motorways, and thus had excellent accessibility, and it was not a concern either that the spectators would disturb the people living nearby.

Thirdly, these areas at the time had a more positive image than the inner city areas, and this was also an important factor. In addition, there were opportunities in the vicinity of the sports facilities to carry out other developments (e.g. hotels, shopping malls, conference centres), which further enhanced the attractiveness of the given complex (and the availability of shared parking areas was an advantage).

With the exception of Great Britain (Bale, 1994, 240), the suburbanisation of sports facilities (mainly football stadiums) in Europe could be observed for a long time, and from the early 1990s it received fresh impetus due to the following two factors. On the one hand, due to the increasing popularity of football, the existing facilities proved to be small, and in order to increase their revenues, clubs set as an objective the construction of larger facilities. On the other hand, as a consequence of the tragedy that happened in Hillsborough in 1989, increasingly strict requirements were implemented with respect to the technical standards of stadiums. The demands that arose could not be satisfied in most cases in the existing location, and as a result the suburban or edge of the city location emerged, which was further reinforced by the first and second reasons also mentioned in connection with the United States of America.

There may be several factors behind the increasing popularity of locations still *within cities* but at a certain distance from the current city centres (Barghchi et al, 2009). On the one hand, it may be due to the fact that the necessary modernisation/expansion of the facility is not possible on the previous location (see above); at the same time the team, partly in order to keep its base of supporters, does not want to move to a larger distance (cf. the new stadium of Arsenal, constructed in 2006 at a distance of approximately 500 yards from the earlier facility). The above phenomenon was particularly frequent in the 1990s in Great Britain where, according to the Taylor report issued after the Hillsborough tragedy, only seated spectators could be allowed in the stadiums of teams in the Premier and the Championship Leagues.

On the other hand, in case of newly constructed, larger sports facilities (e.g. developments related to the Olympic Games), there is more emphasis on locations within the city that are easily accessible by way of public transportation. In both cases, facilities are frequently built on previously industrial, currently deteriorated neighbourhoods in the hope that the new facility will play a leading role in the renewal of the given part of the settlement.

Using the example of Debrecen, one of the outstanding cities of Hungary from the point of view of sports, in addition to describing the development of the sports facilities, the present paper attempts to find answers to the following questions:

-In which categories can be classified the sports facilities built in Debrecen?

-What factors influence the location of sports facilities within the city?

In the context of this paper, a sports facility will be understood as a facility that, in the given period, either played an important role in the competitive sports scene of the city, making it possible for the local sports clubs to join regional and (especially after the 1960s) national championships, or provided a venue for the practice of several branches of sports.

The spatial development of sports facilities in Debrecen

We can identify three larger waves in the development of sports facilities in Debrecen. *The first period was before World War II*, when efforts were first made to build facilities satisfying the demands of athletes in the newly formed sports clubs for venues of training and competition. The need for the construction of sports facilities allowing people to exercise in an organized manner first emerged in the Reformed College, the oldest institute of higher education in Debrecen, and in the light of the above it is hardly surprising that the first gymnasium of the settlement (Fésüs, 1997, 459) was opened on the campus of the college in 1873 (Figure 1).

The first sports club of the town, the Debrecen Athletic Club (DTE), established in 1867, welcomed those pursuing gymnastics, athletics and fencing, to which activities bicycling and football were added in the first decade of the 20th century. The facilities of the sports club were concentrated in the northern part of the town: the gymnasium of DTE was opened in 1896 in Bem Square (the northern end of Péterfia Street – Figure 1), while in 1902 the first real sports complex of the town was dedicated in Great Forest (Figure 1), making it possible to pursue several branches of sports at a high level (the facility consisted of the following units: a ball playing field of 100x50 metres, a bicycling track, two tennis courts, as well as shot putting and discus throwing areas).

An important event in the economic development of Debrecen was the foundation of the Railway Wagon Factory in 1890. From the very beginning, the factory devoted a much attention to assisting the work of the cultural associations (e.g. choral societies) promoting the links between railway workers, as well as the sports clubs growing out of the latter. As a natural development, "Egyetértés" (Concord) Football Club was founded as early as 1902 (the club only adopted a much more widely known DVSC name in 1912), and in 1911 the management designated a plot within the area of the industrial plant for the construction of a football pitch (Fig. 1). The development of the area, however, did not happen at the time due to World War I, and the final opening of the complex was only in 1922 (Filep, 1988, 243), when next to the cinder-track, the changing rooms and covered wooden stalls were also erected. (Further developments took place before World War II, including the sowing

of grass on the football pitch, as well as the construction of the bowling and sports halls).



Figure 1 Location of most important sports facilities in Debrecen at the end of 1930s

1 – Gymnasium of Reformed College, 2 – Gymnasium of DTE, 3 – Sports complex of DTE (nowadays Great Forest sports complex: football stadium, sports hall, István Gyulai Athletic Stadium and Training Centre), 4 – Sports complex of DVSC, 5 – Football pitch in Bösözörményi street, 6 – Sports complex of DEAC, 7 – Great Forest Stadium, 8 – Indoor swimming pool in Great Forest, 9 – Additional facilities of sport city in Great Forest

An important motivating factor in the development of sports facilities in Debrecen was the demands of the students of the University of Debrecen, founded in 1912. The location of the university was fundamentally influenced by the fact that the city offered 80 and then an additional 35 holds¹ of land in Great Forest, on which it was gradually built up in the 1910s and 1920s. In the light of the above it is not surprising that the sports complex of DEAC (Debrecen University Athletic Club), founded in 1919, was also located in this area, close to the buildings (Figure 1): the facility opened in 1928 consisted of a grass-covered football pitch and tennis courts (Fésüs, 1983, 83).

In the era between the two world wars, the largest sports-related development took place in the 1930s in the Great Forest area of the city (Figure 1). In this period, the city leaders paid much attention to expanding the entertainment opportunities in

¹ 1 hold = 0.57 hectares, or 1.42 English acres.

this part of the city, and the development of sports facilities was a part of this (in the various documents the expression sports park and sports city can be frequently read (Sajó, 1934). The initial plans drawn up were rather ambitious: it included the Great Forest Stadium, the rowing pond, which could be used as a skating rink in the winter, the water park also featuring an indoor swimming pool, sledding and ski slopes, tennis courts, infrastructure for fencing and boxing (from among these, eventually only the first three investments, as well as the sledding and skiing slopes were realized, and the latter two were destroyed during World War II).

In the period between World War II and the 1960s there were no major developments in the field of sports facilities, which is basically due to two reasons. On the one hand, as a result of the developments between the two world wars, the existing facilities were fundamentally capable of satisfying the demands arising (the only problem was the lack of an indoor swimming pool). On the other hand, the resources available at the time were primarily devoted to economic development and the improvement of the infrastructure directly serving the needs of the population, which means that there was no money left for sports-related projects.

Smaller-scale developments were concentrated in three areas. First, minor renovations were made in the two most important sports facilities, the Great Forest Stadium and the DVSC complex. Secondly, the right of operation of the Great Forest sports complex and the adjacent shooting range, which were used by DTE before World War II, was obtained by various companies in Debrecen, which created sports facilities (e.g. football and handball pitches, as well as smaller stands for spectators) primarily for use by their own workers. Thirdly in the period after World War II, there was an increase in the popularity of several branches of sports that had been less known before (in Debrecen especially handball), and as a result, some new, basically smaller and lower-cost, open facilities were built in the city centre (in 1970s these sports facilities were gradually liquidated).

Given the above history it should not come as a surprise that by the end of the 1960s, Debrecen faced serious problems concerning the availability of sports facilities, which is shown by the fact that the condition of 30% of the facilities was hardly around 50%, and only 10% were in a 90% condition. The report prepared in the early 1970s by the Presidency of the Debrecen Municipal Council of the Hungarian Athletic and Sports Association correctly identified the shortcomings: "The availability of sports facilities is insufficient in the face of the development of the sports movements in the city and the demands arising. It is a basic problem that in the course of the 3rd five-year plan, the city of Debrecen fell behind similar large cities of the country as far as sports-related developments are concerned." (MTS, 1971, p. 15.).

In order to overcome these problems, the report formulated very ambitious plans in its Medium Term Sports Development Plan drawn up for the period between 1971 and 1975.

"-A modern City Sports Hall, accommodating a large number of spectators, must be built.

-In the interest of providing for the supply of young athletic talents, two training gymnasia must be erected.

-For the purpose of developing sports by school children, the central sports complex for pupils must be constructed.

-In order to satisfy the demand for a place to swim and to develop swimming sports, an indoor swimming pool must be built.

-The Great Forest Stadium, as well as the DVSC and Great Forest sports complexes must be modernized.

-In order to create opportunities for pursuing winter sports, the construction of a skating rink should be urged."

The *second big wave* of the construction of sports facilities in Debrecen took place *between the late 1960s and the mid-1980s*, which was primarily due to the fact that in this period there were larger financial resources available for this purpose, and the expectations of the population and the sports associations were also higher.

First, it was toward the end of the 1960s that the sports complex of No. 6 Auto Transport Company was created in the southern part of the city (Figure 2), which became a major centre of motorcycle speedway, a sport pursued in the framework of Hajdú Volán Transportation Company. Second, with the involvement of significant volunteer work, the Mikes Kelemen Street (Figure 2) handball stadium of the club Debreceni Dózsa was built in 1968 (Csubák et al., 1985, 78), which served as a centre of men's handball sports life for approximately ten years, and due to the outstanding interest by the public it had to be expanded several times.

Third, in the interest of further improving the sports life of the city, three sports clubs of Debrecen merged in 1973, and the new club (DMTE – Debreceni Munkás Testedző Egyesület, i.e. Debrecen Workers' Athletic Club) set the aim of creating a modern Great Forest sports complex on the Oláh Gábor Street area earlier used by them (Figure 2). According to the plans, the new complex was to include a football stadium with a seating capacity of 15 to 20 thousand, also suitable for evening games, as well as an indoor sports hall, a sports swimming pool, a ice skating rank, a bowling hall, as well as a range of small fields suitable for the purpose of mass sports (Gyarmati & Serflek, 1977, 240). Thanks to the financial strength of the sponsoring companies and the support of the city council, the majority of the plans were realized. In the course of 1975/75, the main building including the hotel and the offices was completed, then in 1977 the ice skating rank, in 1981 the athletic stadium, and in 1982 the sports hall also including the bowling area was constructed (with respect to the football stadium, only the new changing rooms and stands were built, and the original plans were not fully implemented).

Fourth, similarly to other major cities in Hungary, in the mid-1970s, in the August of 1976, the first real, larger capacity sports hall (Hódos Imre City Sports Hall) was built on Kassai (then called Szabadság) Street (Figure 2). As a last step of these large-scale developments, the Youth Sports Complex (Figure 2), located in the western part of the city, was opened in 1979, which included a total of 12 fields (e.g. football pitch, handball and tennis courts).

The mid-1980s and the early 1990s once again meant a halt in the development of sports facilities in the city, which can be traced back to the reasons discussed in connection with the 1950s and 1960s. On the one hand, in the last days of socialism and in the first decade of the political changes, the scarce financial resources of both the local governments and of companies did not allow that major sports-related developments be implemented. On the other hand the existing facilities were fundamentally suitable for satisfying the needs of the sports clubs in Debrecen (e.g. the sports halls served as the location of international matches of the women's handball team, including several cup finals as well).

The inadequate quality of some of the existing facilities (e.g. football stadiums, outdoor skating rank) as well as the missing facilities (e.g. the indoor swimming pool, which was already included in the plans in 1961) made large-scale developments imperative from the second half of the 1990s. The need for such developments was

also recognized by the local government, and in the Debrecen regional tourism development plan adopted in 1997, in harmony with the development plan of the Nagyerdő area prepared in 1996, already included some fairly ambitious concepts. Among other things, the documents called for the construction, in the Great Forest (Oláh Gábor street) sports complex, of the indoor swimming pool, the development of the football stadium, the comprehensive renovation of the athletic track, the expansion of the existing hotel, the entire reconstruction of the Great Forest Stadium, as well as the covering of the tennis courts in the DEAC complex. The necessity for the developments called for in the plan was further underlined by the fact that in the new millennium the local government regarded sports, in addition to high added-value industries and cultural tourism, as the third break-out point of Debrecen.



Figure 2. Location of most important sports facilities and sport related objects in Debrecen in 2014
 1, 3-4, 6-8 – see Figure 1, 9 – Mikes Kelemen street handball stadium, 10 – Hódos Imre City Sports Hall, 11 – Hajdú Volán speedway stadium, 12 – Youth Sports Complex (nowadays Industrial Park), 13 – Főnix Hall, 14 – Debrecen Ice Hall, 15 – Debrecen Indoor Sports Swimming Pool, 16 – Debrecen Football Academy, 17 – New ice hall

In the spirit of the above it is not surprising that in *the new millennium*, some large-scale developments were implemented (Figure 2), mainly in connection with major international sports events. It was in the framework of the 2nd IAAF World Youth Championships in Athletics that the Oláh Gábor street athletic stadium was

renovated in 2001/2002 (8-lane recortan track, new service building), which won the title of IAAF International Training Centre in 2003, and then in 2006 was named István Gyulai Athletic Stadium and Training Centre. The second largest events hall of the country, Főnix Hall, was constructed in 2002 in just 8 months, after the successful bid of the city to stage the 36th World Gymnastics Championships.

The IIHF World U18 Championship Division II was the event to which the erection of the Debrecen Ice Hall in 2004 can be linked (it served as the training venue for teams warming up for the matches), and in order to meet the growing needs in 2014 a new ice hall was constructed next to the old one. The next large-scale investment in the field of sports took place in 2006-2007, when the Debrecen Indoor Sports Swimming Pool was constructed after the city won the right to organize the 11th LEN Short Course Swimming European Championships.

The most recent major investment projects of the new millennium were predominantly related to football. On the one hand, in 2013, the Debrecen Football Academy was completed in one of the suburbs of Debrecen. The football fields of this complex primarily serve the objective of training the next generations of footballers. On the other hand, in May 2014, the new Nagyerdei Stadium was opened on the location of the old facility. It is ranked as a Category 4 stadium by FIFA and, as such, it is capable of hosting Champions League matches.

Factors influencing the location of sport facilities

By way of summarizing the findings described so far, we can conclude that the most important factor influencing the location of sports facilities within the city was, naturally, the location of vacant plots.

The second most important factor was the good accessibility of the given location. In terms of examining the location of the facilities we can conclude that the majority of them were easily accessible by way of means of public transportation which meant trams before World War I and city buses from the 1960s on.

The third important factor in case of facilities linked to certain companies and educational institutions was the proximity of the given company/institution. The first gymnasium of the city was established in the institution of the most important users, the Reformed College; the DVSC sports complex on Diószegi Street was built within the area of the former Railway Wagon Factory, and this influence can also be identified in case of the DEAC complex (the proximity of the university). The last important factor was the intention to take advantage of possible points of connections, which can be seen in case of developments after the political transformations: in case of the Főnix Hall, the proximity of Hódos Imre City Sports Hall was important (the latter has served as a warm-up venue in case of several sports events), the Debrecen Indoors Sports Swimming Pool was also very consciously built in the "sports district" of the city that had already been established by that time and the new ice hall finished in 2014 was constructed next to the existing one as well.

Conclusions

The most important conclusions of study can be summarized as follows. In the case of the larger sports facilities built in Debrecen, locations on the edge of the city or in suburbs dominated at the time when the projects were completed (Table 1), but these facilities may be rather considered today as located within the city boundaries (Table 2). As far as smaller sports facilities are concerned, a central location is found

in a few cases, but the most important characteristic, both at the time when the projects were completed and today, was location within the city.

If we consider the factors influencing the location of sports facilities, the most important role, similarly to international trends, was naturally played by the location of the available plots; in addition, accessibility and the proximity of the market of users were also determining factors. At the same time, a special feature in Debrecen was also the idea of establishing a sports complex providing a diversity of opportunities, which notion only appeared in most other cities around the world in the 1960s, but was already surfacing as the concept of the "sports city" in the 1930s.

Table 1. The location of sports facilities in Debrecen in the time of construction (number of sports facilities)

		before the World War II	Mid-1940s to late 1980s	Late-1980s to 2014
larger sports facilities	A	0	0	0
	B	0	1	0
	C	4	2	1
smaller sports facilities	A	1	1	0
	B	1	4	4
	C	1	0	0

A – city centre, B – within the city, C – edge of the city/suburb

Source: own research

Table 2. The location of sports facilities in Debrecen in 2014

	larger sports facilities	smaller sports facilities
city centre	0	1
within the city	5	7
edge of the city/suburb	2	0

Source: own research

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