

Outdoor sport in the city of the future. Planning and designing issues

K. Ujma-Wąsowicz¹ & T. Musioł²

¹*Faculty of Architecture, Silesian University of Technology, Poland*

²*Faculty of Organization & Management,
Silesian University of Technology, Poland*

Abstract

The subject of the research are problems connected with the impact of city areas prepared for practising outdoor, active sports on the quality of life of people living there. The research comprises issues connected with planning and designing outdoor sport areas not only in the context of the quality of urbanized environment but also in the aspect of ergonomic conditions and of mental needs of future users. The research was conducted in Poland among school children (aged 16–17) living in towns of the Upper Silesian Agglomeration – post-industrial areas, subjected to restructuring processes. In the research such tools as the authors' questionnaire, interviews and face-to-face conversations were used. The results of the research allow to determine contemporary tendencies concerning development of outdoor sport among teenagers and to sketch assignments which should be done to enable realization of their expectations. Additionally, the results of the research will constitute the basis for structures of holistic team management in the process of work, studying and active recreation. The undertaken problems were considered in the context of the vision of the future of the European cities, included in the New Charter of Athens 2003.

Keywords: sustainable urban environment, city planning, public space, outdoor sport, amateur sport, sport areas, ergonomics knowledge.

1 Introduction

In the 90s the research was conducted in the European counties, which revealed that in Poland (like in other counties of Eastern Europe) on average 15% of adult society regularly practices sport. This phenomenon is amazing, especially in



comparison to Western Europe, where this proportion reaches almost 70% [1]. Since then not much has changed in Poland and a lot of circumstances indicate that the forthcoming future will look similarly.

It is easy to observe that the tendency of sports absence among adult people does not only remain on the same level but increases. Two factors create favourable conditions for deepening these incorrect habits: on the one hand spending long hours in front of a computer monitor by children and teenagers, in perspective adult people, and on the other hand the shortage of commonly available sports infrastructure taking advantage of the technical potential of 21st century and expectations of users. That is why it seems that “environment sport” should offer young people a new and attractive formula of spending free time by means of commonly accessible and safe infrastructure, adjusted to the needs of varied users. Otherwise, the process of lack of interest in active recreation among currently young people and adults in future will be deepened.

2 Why the issues of outdoor sport areas in cities were undertaken and what is the purpose of the research?

Outdoor sport and recreation areas are a considerable percentage of public and semi-public spaces in Polish towns and cities. The serious problem connected with these previously well-kept and today degraded areas (e.g. school sports areas and also sports facilities previously belonging to dynamically developing sports clubs) started in the period of our country's political transformation. The related changes caused among others such effects as lack of institutional interest (of local authorities) in the problem of renovation of sports areas or giving up supporting such complexes by their previous owners (e.g. mines).

Another condition that was an encouragement to begin the research is absence of the disabled in outdoor sports life [2]. The disabled are often perceived as the people of the second category. The mentality of able-bodied people does not allow such persons to function normally. These people are not aware that the disabled have the same needs and aspirations as the rest of the society, however their ability to realize them is limited. They do not expect from the society sympathy but support and partnership in aiming at normal functioning in all spheres of life, also in realizing their sports aspirations [3].

Therefore, the purpose of the conducted research is to determine the possibilities and directions of revitalization of outdoor sports areas in cities, taking into account all potential users and the New Charter of Athens 2003.

2.1 Urbanistic context

In Poland, particularly in post-industrial towns and cities, the process of degradation of existing sports areas (constituting the considerable percentage of outdoor areas in towns) is intensifying. On the other hand, there is a shortage of commonly accessible sport and recreation areas, equipped with suitable infrastructure, i.e. complying with the 21st century standards and, which is the most important, situated in the proximity of the place of residence (which

encourages different age groups to everyday, spontaneous, active recreation). The existing outdoor sport areas in cities, easily accessible and affordable, such as football pitches by school or housing estates, are in most cases neglected and developed in old-fashioned way. By contrast, the possibility of using attractively organized outdoor sport areas is connected with the necessity of travelling and often fees (they are mostly commercial facilities). The additional problem in Polish cities is lack of commonly accessible sports infrastructure, adjusted to the expectations of the disabled, giving them opportunity to practice sports which are popular among them.

The changes worth aiming at in the context of open sports areas should be understood as [4]:

- realization of the city spatial policy related to balanced development principles;
- restoration of city landscape advantages;
- enlivening city public spaces;
- making sports areas available to a broader social group (the disabled or the ones not interested in traditional sports);
- creating new workplaces (for everyday supervision and equipment care).

2.2 Physical and mental health and social behaviours context

In the era of globalization the characteristic of labour processes is first of all fast information flow. It is based primarily on mobile cybernetic technologies and quality and efficiency of communicating of different cultures in all the world. Therefore, the cyberspace area leads to the future, simultaneously quantifying the past. The side effect of these processes are all kinds of civilization diseases and the syndrome of burnout. To maintain a balance between professional and personal life it is good to invest time in physical, emotional and spiritual development. It can be realized by participation in active practicing uninstitutioned sport, which is a factor reducing health risks. In the same time the awareness of ergonomics and safety of an individual as well as a team is being increased [5].

Taking into consideration this sphere of human life enables to influence the development of such personality features as:

- physical condition;
- internal motivation to work on oneself;
- resistance to stress;
- ability to work in a group and to solve problems.

On the other hand, the quality of social behaviours of city inhabitants is permanently worsening (particularly of young people), which results in the phenomenon of isolation, aggression and becoming addicted. One of the reasons of such behaviours is lack of alternative forms of spending free time, adequate to the needs of the contemporary man.

To what extent practicing amateur outdoor sport influences our personality?

- it shapes the abilities of spontaneous team work organization;
- it enables organization of active spending free time according to individual needs (without necessary "top-down" timetables);



- it creates favourable conditions for integration and co-participation of the disabled in outdoor sports life;
- participation in non-toxic competition.

3 Programmes and implementations referring to outdoor sports

The state of possessed knowledge enables the authors to present examples of programmes intended for popularization of outdoor amateur sport in Poland and abroad as well as modern solutions of outdoor sports areas in urbanized spaces.

The programmes: “Blisko Boisko” (eng. “A Pitch Nearby”), “Building multifunctional sports pitches commonly accessible to children and teenagers” and “Orlik 2012”, a very new one are realized in Poland by the Ministry of Sport and Tourism of the Republic of Poland [6] (the difference between them lies in the method of funding). The analysis of these programmes shows that the driving force behind these activities is the good will of investors submitting offers for building complexes of this type. It means that single implementations are realized in new locations in the country, which are not subjected to system activities in the city and district scale.

An extremely interesting foreign example is Millennium Programme “Changing Places” presented at Royal Society of Arts in London in March 1995 [7]. The programme is destined for landscape regeneration of 21 sites depredated by industry in England and Wales. The primary principle of “Changing Places” is framing directions of changes on the basis of cooperation of many authorities, particularly local ones (government and non-governmental organizations and the private sector). The programme in every location covers several hectares of land and involves unurbanized areas.

In Poland in urbanized areas the illustration of modern solutions can be “Krakowski Square” in Gliwice, the city where the Silesian University of Technology is located. In 2000 in the centre of the city the multifunctional outdoor complex, covering 800 m² was built. The area belongs to the local government’s assets and till 1990s it had been undeveloped and neglected. The implemented project is the place willingly visited by the inhabitants. It comprises varied functional zones, such as a square with a scene and a stand destined for organizing different kinds of events (e.g. every year the street basketball competition is organized here, in which on average 80 teams, mostly from the Silesia, participate), a skate park, an alley with a playground for small children and a fountain. Also additional facilities (public toilets, benches and a bus stop) were skillfully integrated into the project (Fig.1) [8].

Another sport and recreation area, having some features of a city square is “Westblaak Skate park” in Rotterdam in the Netherlands, the project implemented in 2005. It was built in the centre of the city, on a former street. The area is a very popular place. It gathers great numbers of sportsmen and spectators because of its localization and the function it fulfils (Fig.2) [9].



Figure 1: Krakowski Square, Gliwice, Poland.



Figure 2: Westblaak Skate park, Rotterdam, the Netherlands.

4 The methods of conducting the research

In June 2008 the research including two phases was conducted. The subject of the research were school teenagers aged from 14 to 18. The young people attend three middle schools and two secondary schools in Gliwice. The teenagers subjected to the research attend 3 sport classes and 5 general education classes. The purpose of the research was to diagnose the attitude of young people to sport behaviours in everyday life and then to describe the directions of transformations of existing sports areas in a Polish city.

The questionnaire was filled in by 239 pupils. 36 questionnaires were completed incorrectly. After verification 125 questionnaires were chosen for the analysis of the research results, which were filled in by teenagers aged 16 and 17.

Considering the specifics of the undertaken problem, it was assumed that the young people were potential external clients of the future facilities. Accordingly, the tools of Total Quality Management (TQM) were applied [10]. In order to obtain information which enables to describe the examined reality, by means of

number indexes of a single phenomenon as well as showing its specifics, sociological standardized and non-standardized techniques are used – for example: a survey form, a questionnaire or an free interview [11]. In the presented research non-standardized techniques, i.e. a questionnaire having characteristics of a free interview was applied, constructed on the basis of the authors' set of issues.

4.1 1st phase of the research – evaluating the attitude of young people to pro-sport behaviours in everyday life

The questionnaire was constructed according to the following principles.

The young people were asked to present their attitude to 5 issues (I):

I₁ – attitude to television sports programmes;

I₂ – the types of facilities that should be built in the surroundings;

I₃ – frequency of practicing outdoor sports;

I₄ – a way of practicing sport (sports class, sports club);

I₅ – the attitude to Physical Education lessons at school.

Each issue was given 3 options of choice (C):

C₁ – the first one negated the sense of sport existence;

C₂ – the second one described it as an important element of human life;

C₃ – the third one described sport as the greatest enjoyment in life.

The respondents were to choose one option C, which obtained 1 point.

The analysis of the results was carried out according to the following formula

(1):

$$P_{i(1-5)} = \frac{I_{i(1-5)} C_{i(1-3)}}{125} \quad (1)$$

where:

P_{i(1-5)} – point value of a chosen option C of a particular issue;

I_{i(1-5)} – a number of responses for an issue;

C_{i(1-3)} – 1 point for the chosen option.

The results of the research are presented in Table 1.

Table 1: Determining the proportion of teenagers to individual issues P_{i(1-5)}.

Point value P _{i(1-5)}	Option of choice C _{i(1-3)}		
	C ₁	C ₂	C ₃
P ₁	0,04	0,83	0,13
P ₂	0,15	0,30	0,55
P ₃	0,02	0,80	0,18
P ₄	0,48	0,07	0,44
P ₅	0,14	0,6	0,26

Then point values for the chosen option C_{i(1-3)} were summed up, determining tendencies of pro-sport behaviours (2):

$$T_{i(1-3)} = \sum_{i=1}^{n=5} P_1 + P_2 + P_3 + P_4 + P_5 \quad (2)$$

where:

$T_{i(1-3)}$ – point value of the tendency for the option $C_{i(1-3)}$

P_1, P_2, P_3, P_4, P_5 – point values of issues for the chosen option $C_{i(1-3)}$

Table 2: Determining the tendency of everyday pro-sport behaviours of young people $T_{i(1-3)}$.

Point value of the tendency $T_{i(1-3)}$ of pro-sport behaviors'		
T_1	T_2	T_3
0,83	2,60	1,56

The value $T_2 = 2,60$ indicates that active recreation is an essential element of a young man's life, proving its quality. In spite of long hours spent in front of a computer monitor young people instinctively feel that sport is the method for reduction of isolation [12], improving physical condition and enjoying time in a group.

4.2 2nd phase of the research – determining the development directions of sport areas in a Polish city

The second phase of the research was conducted according to the following principles: the respondents were shown 4 questions, which covered the following issues:

1. What type of sport facilities should be subject to investments in the city: cubature or outdoor ones?;
2. What sports functions should be realized in outdoor facilities in the proximity of the place of residence?
3. How do they perceive the need of investing in accompanying functions in outdoor facilities (technical infrastructure, possibility to rent equipment), situated in the proximity of the place of residence?;
4. Is it worth to „revive” outdoor sport areas in the winter period, for example by transforming existing football pitches into skating rinks?

For every of these questions the respondents were to choose one of the presented answers, which were attributed to symbols A, B, C, D meaning:

A – it is essential to invest in outdoor sport facilities;

B – it is good to invest in outdoor sport facilities;

C – the existing outdoor sport facilities are satisfactory; there is no need to change anything;

D – investing in outdoor sport facilities is not necessary at all.


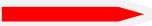














The answers to the posed questions were the following:

1. (A) only outdoor facilities – 16 pupils, (B) every type of sport facilities – 92 pupils, (C) only cubature facilities – 13 pupils, (D) no sport facilities – 4 pupils;



- 2. (A) apart from traditional ones also other outdoor sport areas: skate parks, climbing walls, beach volleyball courts, tennis courts, rugby pitches, recreation squares with manicured grass – 63 pupils, (B) the current pitches are satisfactory (however, their surface and parts of equipment – baskets, goals should be replaced) – 50 pupils, (C) it is not necessary to change anything, the existing facilities are satisfactory – 8 pupils, (D) it is not at all worth investing in this type of areas – 4 pupils;
- 3. (A) lighting, roofed stands and locker rooms with toilets – 53 pupils, (B) – lighting – 46 pupils, (C) – possibility to rent sports equipment – 23 pupils, (D) nothing is necessary – 3 pupils;
- 4. (A) the idea is very good and worth realization – 49 pupils, (B) the idea is acceptable but not necessary – 42 pupils, (C) the idea is not necessary because there is an artificial skating rink in the city – 20 pupils, (D) the idea is impossible to realize and pointless – 14 pupils.

Table 3: Presentation of number of responses referring to orienting development of outdoor sport areas in a Polish city.

Question no.	Symbol			
	A	B	C	D
1	16 pupils 	92 pupils 	13 pupils 	4 pupils 
2	63 pupils 	50 pupils 	8 pupils 	4 pupils 
3	53 pupils 	46 pupils 	23 pupils 	3 pupils 
4	49 pupils 	42 pupils 	20 pupils 	14 pupils 

In the table the red colour was used to mark the largest number of responses to a given question. They accumulate in the columns A and B. It proves that Polish young people wish there were investments in outdoor sport areas in the city. They also expect diversified sports offer and accompanying infrastructure.

5 Conclusions

The conducted research confirm the following theses.

In Poland in the environment of young people:

- there is an interest in sports lifestyle;
- there is a growing tendency of dynamic development of different than traditional sports disciplines, which are practiced in the “open air”. They include: street basketball, beach volleyball, skating and climbing up an artificial wall;
- modernization of existing sports areas is expected, in the form of replacement of pitch surfaces and parts of equipment as well as supplementing these areas



with such infrastructure as lighting, roofed stands and locker rooms with toilets;

- There is an interest in the proposal of transforming “summer pitches” into skating rinks.

It means that it is necessary to work out new planning and design guidelines for implementation of outdoor sports facilities in urbanized environment, matching the expectations of different groups of users and current technological development. These facilities, because of their locations and realized functions, are important elements of composition of urban space. Therefore, the state policy should be oriented on investing in commonly accessible outdoor sport areas, according to the latest trends.

6 Final remark

The authors of the article are academic teachers and have opportunities to encourage for discussion on these issues the student environment, which also includes disabled persons. The discussions prove the usefulness of the begun research and indicate the need of its expansion into the environments of the disabled, working people and senior citizens.

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