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The Latest Tendencies in Designing Recreational Spaces — Contemporary Multisensory Gardens, Parks, and Playgrounds

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Abstract: Playgrounds came into being relatively recently — as late as in the mid-19th century. Ever since their very beginnings, the concepts and ideas accompanying their appearance have been changing, and the contemporary times prove that there are several, if not a dozen, different models of shaping recreational spaces for children and adolescents.

The recreation zones and the like that come into being today not only fulfil the function of recreation, but they also provide assistance in the rehabilitation of children and adolescent, interacting with all the senses and encouraging them to undertake physical activity. These spaces constitute areas with a therapeutic function for persons with impaired vision and hearing, as well as with psychophysiological disorders. In providing opportunities to play educational games, they help to build interpersonal relationships and social skills.

This paper aims to review the contemporary tendencies in designing playgrounds that stimulate the senses. The examples of multisensory recreational spaces presented herein constitute a review of contemporary design tendencies in Poland. They differ from one another considerably, both in terms of their sizes and the fundamental use (dedicated to all children or designed as rehabilitation playgrounds in hospitals or specialist centres). Nevertheless, undoubtedly, they are all multisensory spaces, that is spaces which thanks to their spatial layout, selection of fittings and details stimulate all senses of their users.

Key words: playgrounds, recreational areas, multisensory design

1. Introduction

The contemporary world is full of places, buildings, and objects created just for fun and pleasure. Until the 19th century, recreation did not have its specific place, so it took place everywhere. Only in 1849 the first playground — Queen's Park — was established in Manchester. It was equipped with swings, a place for team games, a cricket court, and a space for bowling and playing the ball. Interestingly, most devices were not dedicated to children, but to adults, who used them in the same way as outdoor gyms are used today. The first playground as we know it, that is intended for children alone, was established as late as thirty years later, in Birmingham [3].

It could be stated that playgrounds belong to these inventions which appeared relatively recently. For ages public spaces: streets and squares, used to be the favourite places for children's games in cities. Thanks to them children could get to know the city, and in doing so they could get to know society and the relations occurring in it [14]. Today, the presence of children in public spaces of the city is encountered less and less frequently. This is so most of all due to the potential dangers they could encounter in the streets: starting from the risk connected with the car traffic, through the harm that can be done to them by adult strangers. Hence the need to create special demarcated zones for children's play and games.

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Play constitutes one of the most essential elements of human life, accompanying us on each stage of our development. According to anthropologists, there is not a single community whose members would not be familiar with having fun or entertainment [11].

In childhood play, work, and education are synonymous words as they constitute an integrated and continuous process of acquiring knowledge and experience, consisting in constant experiments and getting to know the surrounding world, as well as getting to know oneself as an individual. Play has a direct effect on the cognitive development of the child, his/her emotional and motivational sphere, as well as on shaping the child's personality. Studies have proven that the child's primary play always assumes the same forms, irrespective of the place, time, cultural background, or material capacities. Therefore, children from Mexico, Greenland, or Germany, will all play in the same way [8, 15].

Physicians, psychologists, and educators all agree that play constitutes a condition for appropriate development of a child. Moreover, numerous studies point to the existence of a close relation between play that provokes appropriate sensory, motor, social and creative behavioural patterns, and the appropriate development of a young human being in terms of their full physical and mental capacities.

Although all children's play is always the same, the conditions created for it, most of all the place (the play space) and the material (the fittings) are important for its quality, course, and educational value, and most of all or its safety [14].

Fig. 1 There is not a single community which would not be familiar with entertainment, and the child's primary play always assumes the same basic forms, irrespective of the place, time, cultural background, or material capacities.

2. Evolution of the Concept of A Playground

One of the first known playgrounds, established in Chicago and New York, became a model for the land development of the type, commonly encountered until the 1940s. A traditional playground at the turn of the century was equipped with swings, balance beams, and ladders. Initially, those devices were usually wooden and handmade, but relatively soon they were replaced with metal ones, mass produced in factories, and installations made of steel pipes became a symbol of playgrounds for decades.

Metal structures of ladders and swings, installed on an asphalt surface, did not provide the children with

appropriate safety. A large number of accidents forced designers to undertake activities aiming at the creation of a new model of playgrounds for children, as well as defining standards that should be satisfied by such an area. This concept, developed since 1970s, on one hand resulted in the improvement of safety on playgrounds and the development of a number of standards and norms for the devices used there, but on the other it popularised one invariable model of play spaces: a repetitive one, not relating to the surrounding area [3].

A true sensation in the domain of approaching the issue of playgrounds was Poland's first recreational and sports facility intended for children and adolescents — Jordan's Park, established in 1989 in Cracow. It was established upon the initiative of and thanks to the funds from Dr. Henryk Jordan in the area provided by the municipal authorities for that purpose. The entire project consisted of twelve squares and sports fields, as well as a gym pavilion with a spacious hall and showers, tennis courts, a swimming pool, a skating rink, a shooting range, and a community centre, surrounded with a park. The squares and sports fields were equipped with the then most advanced gym equipment, brought by Dr. Jordan from his trip around Europe. Undoubtedly, an element that was quite new in Dr. Jordan's approach was the belief that park greenery was extremely important in the recreation of children and adolescents. He also believed that an appropriately designed interesting surrounding area should constitute an encouragement for exercise, playing and games. It

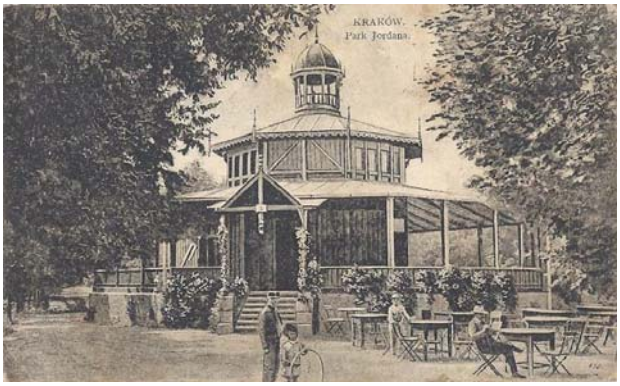

Fig. 2 Jordan's Park in Cracow — photograph from the turn of the 20th century.

was a very innovative approach, in his times, as well as nowadays [19].

Dr Jordan's concept soon found full approval of the society, thanks to which soon other garden projects designed on its basis were coming into being, willingly implemented in numerous Polish towns and cities until the outbreak of the World War II. In the 1930s there were as many as nearly a hundred areas of the type, each of the surface area from 1.5 to 2 ha. After the war Jordan's gardens were no longer established as too costly in the new conditions, reducing the surface area of several hectares of gardens for children to small playgrounds, known before as well as later on, often deprived of any greenery and natural elements of the environment.

3. Typology of Contemporary Spaces of Recreation and Play for Children and Adolescents

According to research [8, 9, 17] children definitely prefer playing with the simplest aids (such as water, a stick, or sand) rather than precisely designed devices. Moreover, it has been demonstrated that what adults recognise as harmonious and orderly in a playground can be not only boring, but also dangerous for children. A too monotonous arrangement (in children's eyes) of a playground, building a feeling that everything is finite in it, can provoke various attitudes: an impartial one, which makes the area not used at all, or an aggressive one, which may result even in acts of vandalism. Therefore, the occurrence of a good playground, which will satisfy the requirements of children as well as their guardians, is certainly not a coincidence, and designing it is a much more complicated task than just arranging a set of devices on a safe surface.

Several types of playgrounds that are most commonly encountered in urban spaces can be differentiated among the playgrounds that are established nowadays. These are: a small playground in a housing estate, a large urban area for games, playing

and physical exercises (often dedicated to children as well as to adults), and an advanced adventure or natural park. Besides the ones enumerated above, there obviously appear also other proposals, such as private playgrounds (which belong to nursery schools or community centres), play halls in shopping malls, or large leisure centres such as funfairs, although the latter are not the subject of this study [3, 4].

The awareness of a narrow selection of development opportunities offered to children by the model of playgrounds popular nowadays results in attempts at finding new solutions. They are conducted in two basic directions. On one hand, the proposals comprise the creation of very modern, technologically advanced playgrounds of a new generation, which nevertheless still constitute the development of the same concept of an area with special devices. A great drawback of the solutions of the type is their predictability and promoting individual rather than team play. Another solution is the establishment of the so-called creative spaces, inspiring children to undertake various types of activity and to express themselves. These are places where the main role is played not by complicated individual devices or pieces of equipment, but nature itself and several elements of equipment, which interact with children thanks to their texture, the sounds they make, or their smells [3].

The concept of adventure or natural parks was developed as a result of immense intensification of research devoted to the quality of playgrounds. The research examined mainly their educational and integrational values, as well as their general aesthetics. Adventure playgrounds constitute, a space that has been flexibly shaped, and therefore which is creative. They are usually filled with easily assembled and disassembled elements, offering an opportunity to build various forms, and therefore to design the surrounding area. A great role in them is played by the use of natural elements: vegetation and water.

The concept of an adventure playground in combination with the model of allotment gardens for children gave the foundation for the concept of the so-called natural playgrounds. These are usually garden-like projects with a clearly defined theme, where nature plays the leading role: gardens of butterflies, gardens of edible plants, or urban farms for children.

Günter Beltzig, a well-known architect of recreational spaces, and at the same time an experienced designer and producer of playground devices for children and disabled people, claims that playgrounds should not be designed on a drawing board, but they should be conjured, brought to life and created in the place of their operation. Nevertheless, due to both the legal regulations in force and the rules of the investment process, it is impossible to completely free the recreational spaces from designs as certain regulations and guidelines in this respect are necessary already at the earliest stage of designing the entire complex [2].

Interestingly, nearly all publications, including this one, devoted to this issue, define the places for games and play as grounds, or squares. This name is associated with a levelled flat area with a hardened surface. It is difficult to guess to what extent the very name has any direct effect on specific design solutions; nevertheless, it is a fact that most areas look like squares, deprived of greenery, with nearly geometrically arranged devices. Meanwhile, the abundance of greenery and the diversity of land development, especially its vertical structure, is much more beneficial, due to the recreational values of the area and for use-related reasons (noise damping), reasons relating to providing children with safety (isolating playgrounds from the gazes of passers-by) and aesthetics.

As it has been mentioned above, the issue of using the so-called safe surface and safe devices for children, is undisputable — both these issues are defined in relevant standards[1]. The surfaces of playground should

[1] PN-N-97050-1:1996 Equipment of recreational and sports grounds. Safety requirements and tests. General provisions; RprPN-EN-1176-1:1998 Playground equipment. General safety

satisfy all requirements that are valid for garden surfaces (high durability, accessibility, low cost of performance and maintenance, high hygienic, artistic, and ecological values), as well as additional ones, which result from the need to secure children's safety (softness) and the opportunity to organise games (susceptibility to transformations). Forms of activity of a child which are characterised by high mobility should take place on soft surfaces, capable of cushioning the impact. Similar requirements should be fulfilled by surfaces in the direct vicinity of devices enabling to play at heights, as well. Forms of activity which generate rather low mobility, on the other hand, such as sitting down, crawling, etc., require surfaces with good hygienic conditions and low heat transfer coefficient (i.e., the so-called warm surfaces) [1, 6].

4. Multisensory Spaces for Learning and Playing — Modern Approach to Playgrounds

Spaces for playing for children that come into being nowadays fulfil not only a recreational function, but they also constitute considerable assistance in rehabilitation, having an intense effect on all senses and encouraging children to undertake physical activity. These spaces are areas with a therapeutic function for persons with impaired vision and hearing, as well as persons suffering from psychophysiological disorders. Via educational games they help build interpersonal relations and social skills [3, 6]].

The examples of multisensory recreational spaces presented below differ from one another to a considerable extent. Some of them have been designed as places for playing and learning for all children (like the Garden of Experiences in Cracow, or the European Fairytale Centre in Pacanów), others — as sensory gardens and playgrounds dedicated to sick or disabled children (the park in Owińska, Children's Memorial Health Institute in Warsaw, playgrounds in Barlinek and Cracow). Moreover, most of them were designed before their execution, but two (Barlinek and Cracow) were made directly in the sculptor's workshop and on the construction site — therefore, they fully satisfied the postulate of Gunther Beltzig.

The first three projects referred to above constitute examples of large projects of the type of interactive playgrounds. The other three — much smaller ones — are rather intimate playgrounds created for specific children from individual centres: Cancer Treatment Centre, Centre for Disabled Children, or School for Blind and Visually Impaired Children. Definitely, all the projects, irrespective of their scale, implement the principle of multisensory interaction and stimulation of creativity and sensory experiences of children.

4.1 Stanislaw Lem Garden of Experiences, Cracow

The concept of a sensory garden was conceived in the early 20th century by a German scholar, Hugo Kukelhaus — a carpenter, an educator, a philosopher, and an artist, whose publications and designs still serve as an inspiration for new educational technologies and designing the environment of education. An educational park — Erfahrungsfeld zur Entfaltung der Sinne — was constructed according to his design.

The Stanisław Lem Garden of Experiences is the first sensory garden in Poland. It was modelled directly on Erfahrungsfeld zur Entfaltung der Sinne and the de la Villete park in Paris. The garden was established in 2007 as an outdoor department of the Museum of Municipal Engineering. It was located in a part of the Polish Pilots Park on the surface area of 6 ha [20, 21].

Garden of Experiences was designed by famous polish architecture office — Ingarden & Ewy Architects. The Garden established as one of the so-called Integrative Workshop — parts of Nowa Huta revitalization project, and was partially founded both by the EQUAL programme and Cracow Borough.

The educational equipment available in the park constitutes its foundation. The outdoor didactic exposition consists of all sorts of devices, structures,

requirements and testing methods, and PN-EN-1177 Impact absorbing playground surfacing. Safety requirements and testing methods.

and models, enabling to get to know the laws of physics and the world of nature, including the laws of physics connected with the force interaction (swings, elements that demonstrate the force of gravity), keeping balance (balance beams, rotating discs, trampolines), pertaining to the phenomena of vibrations and phonics, connected with the activity of water (water turbines), and the rights of the world of nature connected with individual senses.

In each season, which lasts from the second half of April until the end of October, the Garden's offer comprises sightseeing, participation in workshops and shows presenting scientific experiments. The territory of the park is peppered with ca. 60 devices demonstrating the laws of physics, a geological exposition "Geo-Garden", a sensory exposition "Aromatic Plants", and a green maze with quotations from Stanisław Lem — "Lem's Maze". The part that demonstrates the laws of physics is divided into five thematic areas, which demonstrate the principles of mechanics, hydrostatics, optics, acoustics, and magnetism [20]. The Lem's Maze is a labyrinth where quotes from the literature works of the patron of the Garden — Stanisław Lem — can be found. Geometric labyrinth system in the Garden of Experiences is among the most common classic forms. The Aromatic Plants Area is a part of the park, which was created as a sensory garden of plants, showing them colours, smells, textures etc. Other expositions are areas with devices present experiences of all above physics departments.

Each visitor is provided with the assistance of a professional guide, who explains the principles of operation of dozens of devices located in the park. As the idea of the park is learning by experiencing, all visitors prove the correctness of theories of distinguished scientists themselves; all devices located in the garden are accessible to everyone [20].

The Stanisław Lem Garden of Experiences is an example of a perfect implementation of the principle of teaching by playing. It changes the perspective of approaching such fields of knowledge as physics

Fig. 3 Stanisław Lem garden of experience — bird's eye view.

completely. It is a scientific funfair, implementing the principle of learning via playing. What is important, this project is very satisfying also in terms of its aesthetics: the garden of experience is an example of a very good urban park and garden architecture.

It is worth noting that the Garden of Experience has been designed as a park accessible to general public. It is not dedicated especially to people with sensory or mental disability; nevertheless, it perfectly serves as a place of rehabilitation. Thanks to the selection of devices and the form of individual areas, it is intelligible and — most importantly — interesting, for persons with impaired vision or hearing, as well as for those who suffer from any other types of disorders, including the psychophysiological ones.

4.2 European Fairytale Centre Garden, Pacanów

For most Polish children the village of Pacanów is very well known. It is a place that was looked for by Matołek the Billy-Goat, a character from the book by Kornel Makuszyński and Marian Walentynowicz, published since the 1930s. In 2005 the European Fairytale Centre was established, with Matołek the Billy-Goat as its symbol, and it was decided to build its seat in Pacanów. The design of the building was developed in the studio of architect Bogdan Kulczyński, and the concept of the land development — a garden

together with a water reservoir and a stream — in the studio of Argo Atelier Milena Gawąd [23].

Since 2010 the European Fairytale Centre has been operating in its new seat — a multifunctional facility housing a library with a reading room and a bookshop, a cinema and a theatre, as well as workshop halls. The building is surrounded with the garden of senses with bowers, as well as a fairytale amphitheatre and a forge, which is to commemorate the famous blacksmiths from the fairytale "120 Adventures of Matołek the Billy-Goat".

Fig. 4 The garden complex around the European Fairytale Centre: water reservoir, amphitheatre, didactic paths in the garden, and bowers.

The total area covered in this study is over 8.5 thousand square metres. The main project assumption was to create a garden with the leading educational function, combined with a recreational and decorative function, together with a water reservoir and a stream with a mill wheel. Thanks to locating the building in the central/western part of the plot, the area of the garden has been divided into two zones: the representational one, located in the front part, and the recreational and educational one – in the eastern part.

The entire garden consists of several smaller thematic gardens. Before the entrance to the building the Garden of Grasses has been designed, where eleven species of perennial grasses have been collected, which differ in terms of the growth force, appearance, colour, and time of blooming. In the recreational part three colourful gardens have been designed: a yellow garden, a purple garden, and a white garden. Each garden consists of plants from different groups, but with a similar colour of leaves, flowers, fruit, or in some cases shoots. Moreover, in each of them thematic nooks of a typical sensory garden have been designed, emphasizing the smell, the taste, or the texture of individual plants. Following this principle, other gardens have been organized: the Garden of Fragrance, where one can find plants with interesting aromas, the

Garden of Taste, where edible plants are located, and the Garden of Touch, where children can get to know different textures of leaves [23].

The garden in Pacanów does not belong to the group of the largest gardens of the type; however, it fully implements the properties of a multisensory space, although — similarly to the garden of experiences in Cracow — it has not been designed as a rehabilitation space, but a garden open to all children. The parts of the project that have their influence on the senses of sight, smell and touch constitute a very interesting offer, especially to young children, to whom the garden is dedicated, and those users who need special sensory stimulations — children with impaired vision or hearing or with autistic disorders.

4.3 Spatial Orientation Park, Owińska/Poznań

The Special Educational Centre for Blind Children in Owińska near Poznań conducts activity in the field of treatment, education, and teaching, as well as comprehensive rehabilitation of children and adolescents with the vision impairment. It is located in a former Cistercian monastery. The centre houses a nursery school for the youngest children with the vision impairment, as well as a primary school, a middle school, a secondary school, and a vocational school. A large part of the project is occupied by the dormitory, and since recently also the only Museum of Typhlology in Poland[2].

An unique part of the Centre is the Spatial Orientation Park opened in 2012, comprising the surface area of ca. 2.5 ha. The design was developed in 2007, and its authors are: architect Maciej Jakubowski and associates (Appia Architecture Studio, the main part of the investment), and landscape architect Renata Gilmore (the Garden of Sensory Experience).

The park has been created as a place where children with impaired vision have a chance to get accustomed with the urban space in the safe conditions of their own garden. It has been arranged so as to enable them to get used to a big city without ever leaving the premises of the Centre. It is possible thanks to having collected over a thousand sounds that can be heard in the city and recording them in the form of the so-called Library of Sounds. They include, e.g., traffic sounds encountered on roundabouts, crossroads, bus stops. The recordings are played in the so-called typhloacoustic laboratory, i.e. an appropriately silenced room [22].

Besides devices that imitate the sounds of traffic, the park also comprises architectural models of authentic places and special didactic tools (acoustic toys, balance beams, swings, obstacle courses, etc.). The preparation to the life in the world of people who can see is to consist in the simulation of various events and situations: children with impaired vision learn to e.g. overcome kerbs and to walk on different surfaces. Additionally, the so-called Garden of Sensory Experiences has been established in the park, which is a place that interacts with all the senses.

Besides stimulating the development of blind people, the garden is to fulfil an integrational function; it is to house events for students who can see from mass schools. The facility is also open to everybody — not only the disabled people, according to the principles specified in the rules. It is worth pointing out that although the facility is rather small, the rank of its specialist collections is enormous. The collection of typhlomaps and tactile graphics belongs to the largest in the world, and the Spatial Orientation Park itself is not just a place well known all over Poland, but a sensation in the European scale.

The Spatial Orientation Park was inclusively created for all and allows full integration of disabled and able-bodied visitors. Some classes for sighted students might be held there and during those kind of activities,

[2] A true rarity in its collection is the oldest of the exhibited maps — the map of Europe made in Germany in 1887. A large part of the collection dates back to the last decades of the 19th century. The first world atlas for the blind published in 1932 is also very interesting. There are wall maps of Poland and different regions from nearly all the continents. The display cases house not only cartographic exhibits. There are drawings, Braille printing machines, teaching aids made using different methods in the past. Tactile aids enabling to perform math operations look truly interesting.

in the area specifically designed for children with impairment, able-bodied children have the opportunity to understand how their blind and partially sighted coevals traverse large open spaces. As the people with disabilities encounter many different forms of attitudinal barriers, it is almost certain that those classes may help to overcome some of them and improve social integration of all people, despite their possible abilities or disabilities.

4.4 Rehabilitation playgrounds, Warsaw – Cracow – Barlinek

The last three examples of playgrounds are projects which have been designed and implemented as intended for a group of sick children as a rehabilitation element and an element enhancing their development. The first of them came into being as a playground at the Cancer Treatment Centre in Warsaw, the second one — as an element of equipment of a nursery school students belonging to the "Bratek" Children's Aid Association, and the last one is a playground at the Special Educational Centre for Blind and Visually Impaired Children in Cracow.

The Safe Playground at the Children's Memorial Health Institute in Warsaw was put into use in 2010. It was organised within the territory of the hospital park, at the Cancer Treatment Centre, thanks to the cooperation of the "Our Children" Foundation and sponsors. The hospital playground is most of all a place where young patients can play in the same way as their healthy peers, and forget about their stay in hospital, if only for a moment. It is also perfectly adjusted to the needs of disabled children so that they can use individual devices and toys.

Fig. 5 Spatial Orientation Park in Owińska: elements of the playground and outdoor gym and parts of the garden of senses with plants with interesting aromas and textures.

The safe play devices which constitute the fittings of the playground have been brought from Denmark. There are ladders, climbing walls, slides, balance beams, and swings, as well as one special swing for children with physical disabilities (although there are no swings that can be used on wheelchairs). They are completed with a safe soft surface, very colourful and contrasting. All this makes the playground interact with all the senses of children and develops their visual, hearing and tactile perception, bringing relief in their illness.

The development and enhancement of perception in children in terms of all the senses was also the main goal during the process of designing devices in the playground for children with mental disabilities in Barlinek. The playground came into being in 2012, and

it was designed and implemented by the ArteFakty studio from Cracow.

The designers decided to create a play space the axis and main motif of which would be the sound. Hence the idea to design all the devices as large musical instruments made of wood. All their elements can be rubbed and hit, and tapping, rattling and battering, with sticks, cones, hand, is the best way to make them sound. Thanks to the combination of strings and pieces of wood a toy which is left alone makes a sound, moved by the wind.

All the fittings of this playground have been made of natural wood, with great care for maintaining its natural properties and characteristic features. All the elements of this playground have been designed and prepared intentionally, as the only copy, adjusted to the purposes of rehabilitation and education of children with mental and sensory disabilities as much as possible.

The sensory playground for blind and visually impaired children located in Cracow came into being as a project similar to the Park in Owińska. Its scale, however, is definitely different: it is an example of a small intimate space for playing for children who stay in the centre in Cracow.

Within the territory of the playground there are special devices: swings, bridges, a covered sandpit, and other elements intended for play. All of them are in contrasting colours. Various textures of wood and bark have been applied, and the combination of smooth and porous fragments have resulted in quite an interesting effect, noticeable by children with impaired vision. Moreover, the playground also contains elements that make sounds; the wood creaks, and the blocks suspended on ropes hit against each other, making all sorts of sounds. All this is completed with a wooden pipe for acoustic exercises and sound communication.

Fig. 6 Rehabilitation playgrounds in Barlinek (on the left) and in Cracow (on the right), made of natural wood and ecologically coloured (ArteFakty studio).

The playground for blind and visually impaired children in Cracow was created — designed and actually made — by the same sculpture studio, ArteFakty. Therefore, its guidelines were similar: elements are made of natural ecologically coloured wood, which is absolutely safe for children, even in close contact.

5. Conclusions

Nowadays children have a nearly unlimited access to numerous stimulators at home — a TV set, a computer, or all sorts of smart gadgets; nevertheless, in space they are offered fewer and fewer opportunities to invent their own fun activities in a creative way. Looking for an optimal model of a playground constitutes an attempt to find a model of the space where it will be possible to reach a compromise between two contradictory needs: of a safe space, fully controlled by adults, and therefore limited and closed on one hand, and on the other — a free space, enhancing creativity, the limits of which are defined by children's imagination only.

It seems certain that the only common feature shared by the examples of architecture or public spaces

created nowadays is their diversity. It is possible to design and construct nearly everything today, and the only limit is the designer's imagination, the budget of the project, or local regulations.

Obviously, the examples of multisensory spaces of education and fun presented above do not constitute a comprehensive review of this issue, but only an outline of contemporary tendencies in this respect appearing in Poland, which are nevertheless examples of the global quality. The diversity of the examples in terms of their sizes, intended use, and the designing method, aimed at emphasising the diversity and vast palette of opportunities which are faced by the designer or the contractor.

Undoubtedly, sensory gardens, orientation parks, or gardens of experiences, constitute the symptom of a relatively new (in the world as well as in Poland) way of thinking about zones of education and recreation for children and adolescents. On one hand, these are places of therapy and rehabilitation for disabled children: blind, deaf, or autistic. On the other, they have a greater positive effect than traditional playgrounds on the development of children, stimulating all their senses, and encourage them even more to be creative. And finally, as places of integration and shared fun of disabled and healthy children, they teach tolerance to all their users.

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