# **DESIGNS OF CHILDREN PLAYGROUNDS**

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Abstract. Specialized designing playgrounds for children is based on a series of rules on materials, structure and configuration of outdoor spaces for children's play. Materials used in the construction of appropriate furniture abide the ergonomic character game, nontoxic, harmless forms, but also ecological. This paper brings an overview of the methods of planning playgrounds for children in our country compared to those built in other countries.

Key words: outdoor playgrounds, landscape design, children play equipment

Rezumat. În proiectarea de specialitate a spațiilor de joacă pentru copii se au în vedere o serie de reguli privind materialele, structura și configurarea spațiilor exterioare destinate jocului copiilor. Materialele utilizate în construcția unui mobilier adecvat jocului se supun rigorilor ergonomicității, nontoxicității, formelor necontondente, dar și ecologicului. Lucrarea de față aduce o privire de ansamblu asupra metodelor de amenajare a spațiilor de joacă pentru copii de la noi din țară, comparativ cu cele construite în alte țări. Cuvinte cheie: spații de joacă exterioare, amenajări peisagere, echipamente de joacă pentru copii

#### INTRODUCTION

In their games, the children face the reality, check their physical and mental capabilities. As Albert Einstein used to say "the game is the lofty type of research", so the child must be given the freedom to play as you want them, so it can test its limts and develop self-knowledge.

Since before apparition of the concept of "playground" there were various structures that were used by children in their games, but emergence of this concept has made children's games to be concentrated to one particular area in that their supervision is much easier .

### **MATERIAL AND METHOD**

With the development of prehistoric civilizations have developed also people's perception of public spaces and education, ever since the ancient Greeks and Romans may notice changes in urban living concepts, developing parks, gardens, outdoor theaters. For example Plato (427-347 BC) claimed that children's games are methods of developing skills for adult life and maintain physical health and psychological development.

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Playgrounds have a long history, but the first full illustration of this concept appeared in 1848 (Henry Bernard). This site was designed as a pedagogical space focused on games.(fig.1)

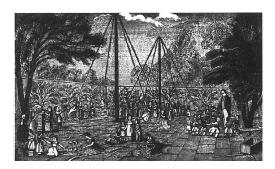


Fig.1 - The image of a playground for children ninth century (after H. Berard, 1848) (1)

In the United States, in Boston, in 1885, at the German doctor Marie Zarkrzewska urge, have start to development parks for children as we know them today in the initial formation of "sand gardens" where children could play; mean while in Berlin the same concept has been updated by adding boards to maintain sand in inițial space. Soon, swings and other playground equipment was added for this space to be used by older children. Until 1912 were added also adult recreational places, thus stimulating desire for free movement.

In 1923, to encouraje games as an integrant part of family life, Charles Wicksteed designed a set of equipment that could be used successfully in playgrounds. They were located in Kettering Wicksteed Park in UK, which is considered the first park of its kind in whole the country.(fig.2)



Fig.2 - Image of playground equipment in Kettering Wicksteed Park, UK, 1923 (2)

During the Second World War, a new concept of playgrounds developed  $\Box$ n Denmark and then was spread in most of the Europe. The architect Carl Theodor Marius Sørensen developed the concept of playgrounds made from waste, also designed by children themselves while they were enjoing the space.(fig.3)



Fig.3 - Images of playgrounds for children: in Denmark (during the Second World War) (left)(3), Quarry Hills Estate Playground, Leeds 1937 (right)(4)

Since the beginning of the  $XX^{th}$  century, the playgrounds were becoming increasingly industrialized so that the exploatation costs be minimized. As equipment playgrounds have evolved and have been observed involving child safety issues, changes were introduced  $\Box n$  their design.

Between 1900 - 2000, no major changes have occurred in the development of playground equipment, but instead, there was an explosion in the number of traders and the variety of playing styles and activities. There was an innovation in constructing elements, creative shapes and colors of playing equipment. Wooden equipment were popular from 1970-1980 and also have written rules for safety. Since 2000, there have appeared equipment for parks that focus on fitness. Handrails were taken off and physical activity encouraged.

Manufacturers have predicted that the metal and equipment-oriented action will remain a priority, plastic that will replace the metal on some plans, sculptures shaped animals will become popular, equipments will be tailored to age groups, will be less high and installed on pebbled or mulch surfaces for added security.

Since 2010, we experience a new trend - the return to nature.

The trend was divided in two directions:

☐ The first is that which emphasis the constructing playground equipment whith natural elements - trees tower with slides, prefabricated rock for climbing, different tipes of structures hanged on the trunk of the trees, standardized form of mushrooms, flowers, insects etc. (fig.4)



Fig.4 - Images of playgrounds in classic style (5).

☐ A second direction, led by landscape architects, creates play areas without equipment, but with natural elements like wood beams for balance over ponds, small hills to climb and slide down, a warren of tall vegetation, houses in trees areas with sandy, natural paths, free materials from wich the childrens can build forts.(fig.5)





Fig.5 - Images of playgrounds in naturalist styles.(6),(7)

Today, children's play parks is a good business in most civilized countries, and the design, construction and their elements are too diverse for a general description.

For manufacturing playground equipment should be used durable materials that are resistant and easy to maintain and must comply with applicable European standards and rules of classification, labeling and packaging of substances and mixtures.

Minimum distances to be observed will be measured from the outer perimeter of the playground area to the road and parking area boundaries:

- 10 m for local roads without urban continuity or parking area. A minimum distance of 5 m maximum is permitted only when vehicles are physically limited to run at very low speeds and are provided effective technical solutions to ensure protection against trafficking;
  - 20 m for local distribution roads with urban continuity and parking area.
- 50 m for other more intensive traffic roads where playgrounds will be physically separate from these roads.

# **RESULTS AND DISCUSSIONS**

In Romania after 1990, the design playground has evolved slowly from communist society specific equipment to the modern facilities equipped to meet the latest safety and comfort standards, but also to stimulate children's creativity.

Other areas of the world, depending on the degree of economic and cultural development have known various concerns of local communities, architects and designers in recreational spaces dedicated to children and adolescents, at different levels of ingenuity or complexity.

Researchers have long known that playing with blocks helps children develop cognitive and social skills. Children need free play at home and at school. During free play, children increase their imagination and creativity, organize their own games, develop their own rules, learn problem solving skills, and practice leadership (fig.6,7,8).

Playgrounds today are ultra safe. Stringent codes and a fixation on injury prevention are reducing the fun in public playspaces. The safety preoccupation is shortchanging kids diminishing their ability to assess risk and exercise their own judgment (11).



Fig.6 - Images of playgrounds from Dulwich College Singapore, 2014 (8)



**Fig.7** - Images of playground from condominium D'leedon,151A KING'S RD, Singapore, 2014 (9)

Imagination Playground blocks are made of a lightweight foam that is non-toxic and microbe and mold resistant. They're soft and friendly to the touch yet dense and firm enough to build structures and shapes. Imagination Playground blocks meet American Society for Testing Materials (ASTM) and U.S. Consumer Products Safety Commission (CFSC) standards.



Fig.8 - Equipment of childres playground(10)

# **CONCLUSIONS**

Integration of our country into the European Union made possible the emergence of internal markets for the sale of various types of modern and advanced products, including those used in the construction playgrounds for children. What there is not in our country is european mentality, and financial capability to purchase such equipment. Major investments in this area there is only in big cities or with the contribution of European funds raised by local authorities.

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