
Case Study Report

Designing public space to enable all 0-5 year children flourish

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Abstract

The Public Spaces of Tomorrow are places that enable young children 0-5 to flourish. Contemporary places support healthy child development. The early years are the foundation for lifelong physical and mental health, wellbeing, and social skills. Designing, planning, and building new public spaces for our babies and toddlers should take into consideration the wellbeing of their caregivers. Engage parents, grandparents, siblings, or pregnant women in the design process provides for the ability to create new types of public spaces. Knowledge of how to do it for wellbeing in specific circumstances, places, social or natural environment is the purpose of the work (for ex. the Covid-19 pandemic is still unfolding but the principle of healthy development or caregiver isn't changing). Responsibility of local authorities, urban planners, architects, park managers, all people engaged in city planning and functioning, have their role to play. During the collaborative workshop Mentor and Student Research Lab 3 in Poland (Gdańsk University of Technology) numerous investigation and methods were tried to answer research questions on how to resolve problems of designing public spaces of tomorrow.

Keywords

public spaces for children 0-5 of tomorrow, healthy child development, evolution of public spaces for children, education

1. Overview

1.1. The research method

International team of mentor, Ph.D. students, M. Arch. students have been committed all along to research, interview, survey, and instant contact (also in the course of Covid-19 pandemic). The research method contains a discussion of sources. Its organized formula is chronologically and thematically divided provides a quick idea of the topic. The literature review, such as the central theme or organizational pattern of research allows to formulate the answer to the research question. A literature review by the chronological progression of the field (ex. evolution of public spaces for children) and thematically review approximate to a better understanding of the topic. Review of case studies -thematically divided (classification), interviews with caregivers are included.

1.2. Socio-political context

Urban planning should play in achieving the Sustainable Development Goals (SDGs), from a global perspective to a local context, by creating thriving and equitable cities where children live in healthy, safe, inclusive, green and prosperous communities (Unicef, 2018).

1.3. The project approach

What are the implications? What is extracted from the current literature review? Where can the discussion take place? It is necessary in itself to raise the topic to the top of the agenda even more critically and to make today's public spaces of tomorrow public. Research results are constantly supplemented with recommendations for planning and designing public spaces (not just playgrounds). Paying attention to the needs of people under 5 years of age and their guardians. The recommendations cover various aspects, from facilitating daily travel to bringing nature closer and incorporating the educational layer. It shows how to plan and design public spaces (not just playgrounds), paying attention to the needs of children under 5 years old and carers.



Figure 1. International team of mentor, Ph.D. students, M. Arch. Of Mentor and Student Research Lab , Gdańsk University of Technology, Faculty of Architecture, 2019

2. Evolution of public space for children- public spaces of the past

Through evolution, a place space paradigm commonly used on both continents; Europe and United States has been developed. Finally, a model of modern playground was established. However, only in United States can it be seen that as a result of evolution, a children`s playground has become the center of social life. Such a square for children integrates the structure of the housing estate and the park in terms of functionality.

2.1. First playgrounds-model from the turn of the 20th century

The first organized playgrounds began to appear in Europe in the 19th century. As a reaction to the growing need for childcare in 1849, the first playground was established in Queens`s Park in Manchester. The first American playgrounds began to arise in the 1880`s. In 1886, The Massachusetts Emergency and Hygiene Association (MEHA) founded the first playground (sand hill) in the Children`s Mission in Boston. The source of the idea of creating a playground for children was the need to Americanize immigrant children through a form of organized play. In Europe the first Urban Park of Doctor Jordan was implemented on the initiative of Dr Jordan in 1887 in Krakow. According to Dr Jordan`s concept, recreation should enable comprehensive human development and concern each of the physical, emotional and intellectual spheres. The concept has evolved into green squares with gymnastic equipment (Czelczyńska-Podolska, 2009).

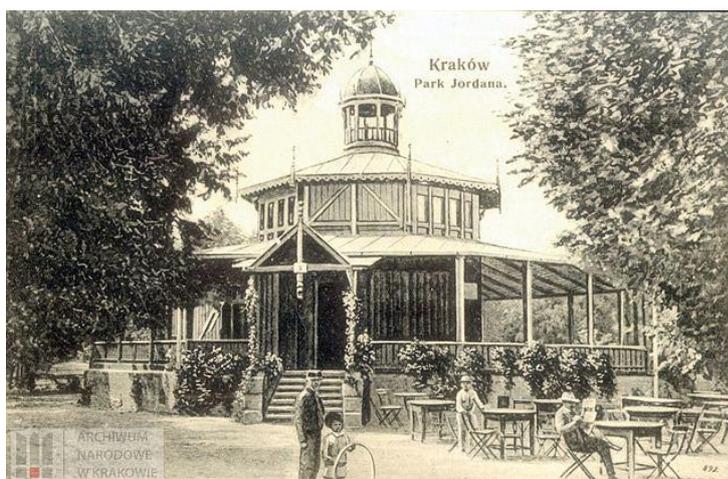


Figure 2. The first urban park of Doctor Jordan in Krakow, Poland (Wydawnictwo Salonu Malarzy Polskich, Kraków 1908. Archiwum Narodowe w Krakowie, Zbiór widokówek, sygn. C-V-184). Source: <https://www.skyscrapercity.com/threads/kraków-archiwalia-stare-zdjęcia-ryciny-plany-etc.1925740/page-5>

At the end of the 19th century, playgrounds had the form of small separate squares with gymnastic equipment. They were established mainly at schools and education centers. The benchmark were playing fields organized by gymnastic societies. The first playgrounds established in Chicago and New York served as a reference point for other cities until the 1940s. Similarly decorated playgrounds were created in Europe to ensure the safety of children playing on the street (Czełczyńska-Podolska, 2009).

1.3. Adventure and natural playgrounds

The first constructions were very dangerous. The result was a repeat model that did not take into account the context of the environment. Finally in the 1930s, the Danish landscape architect C. Th. Sorensen noticed that children are most likely to be on the playground during its construction. He became the originator of designing an adventure playground. The first adventure playground was opened in Emdrup, Denmark. In the following years, playgrounds of this type also became popular outside of Denmark. There are currently around 1000 adventure playgrounds in Europe. The concept of the Polish Jordanian garden also fits into this trend, it is an example of understanding the needs of children.

The 1960s and 1970s were the most interesting and creative period for shaping playgrounds by landscape architects. But in the years 1979-1990 there was a dynamic development of research on improving the quality of playgrounds. This contributed to typing and eliminating individually designed devices. Modular solutions were criticized therefore, in opposition to the schematic design, natural playgrounds were created. Natural playgrounds arose on the foundation of the idea of an adventure playground and allotment gardens for children. Butterfly gardens, edible gardens or urban children's farms began to arise and became popular in United States and some of European countries. (Czełczyńska-Podolska, 2009) Finally, at the turn of the century the model of contemporary playground was crystalized. Main difference between these models, seen in United States and Europe is connected with functionality.

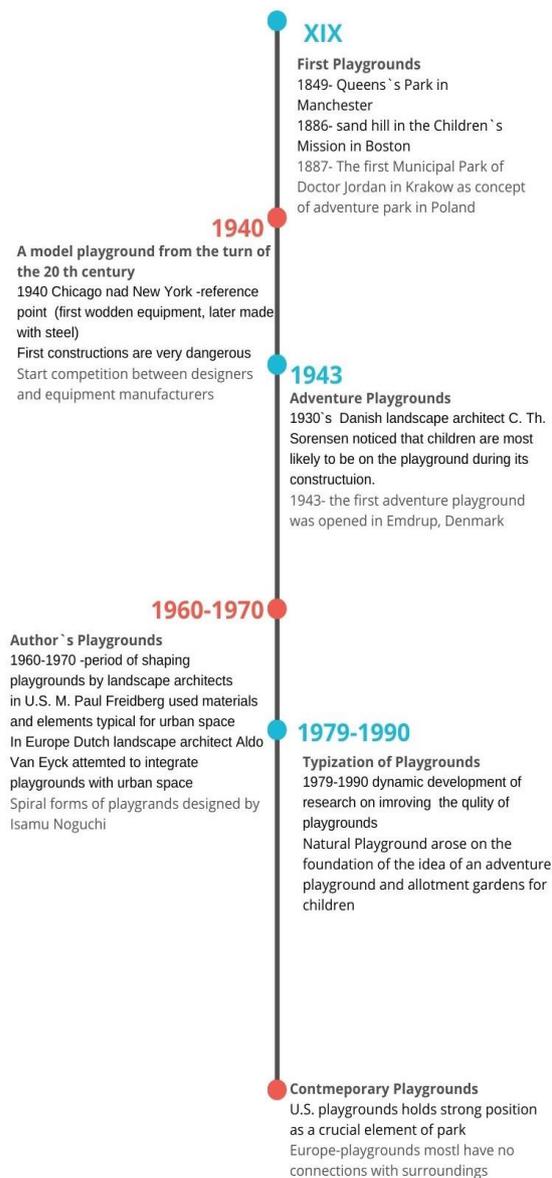
EVOLUTION OF THE
PLAYGROUNDBased on Czełczyńska-Podolska 2009, by
A.Rubczak

Figure 3. Evolution of the playground based on Czełczyńska-Podolska (2009), (by A. Rubczak)

3. Public spaces for children 0-5 and their caregivers-recommendations

During our literature research and making survey, we proposed recommendations how to create inclusive, healthy spaces for children 0-5 and their caregivers. Plenty of questions provide us to conclusions, that such space should be designed taking into considerations 15 principles:

1. Remember about disabilities / Satisfy every child needs especially in playgrounds
2. Consider each public space as possible playground / Connect generations
3. Do everything to make space safe (pavements along streets)
4. Invite water (there was a similar recommendation I guess)
5. Design together with children
6. Use greenery



7. Let children use their imagination and creativity
8. Restrict car traffic
9. Make pleasant associations
10. Create a diverse space
11. Use street layer as a creative educational space.
12. Social participatory makes spaces for children 0-5 more friendly.
13. An intervention in public space for children 0-5 that will improve its quality and can be a brilliant idea. Easy, low-budget and quick...
14. In areas where society is responsible for flood protection first educational experience includes children 0-5 and caretakers.
15. Playground for children 0-5 and caretakers provides fun also for parents

This 15 recommendations can be a guide for public space for children. As children’s behaviour is moulded by their interaction with the urban environment, children’s participation in shaping sustainable cities will be a determinant for the future of our cities and for our planet (Unicef, 2018).

3.1. Streets

According to research it’s clearly visible lack of solutions for children in streets. Streets are public spaces where children are playing. In Europe cities streets are mostly dominated by car. In a residential environment streets can be favorite place where children are playing. Crossing streets, learning traffic, painting and playing on street can be a part of education process. The best practice as Barcelona Superblocks and project Bogota Urban 95 prove leading way of simulation and inspiration in space where normally children are not feeling safe. So this treatment can be a way for revitalization of streets by creating opportunity for children’s creative work. Streets can be great layers as educational tools. Just like pieces of paper, together with adults, they can be colored by children.

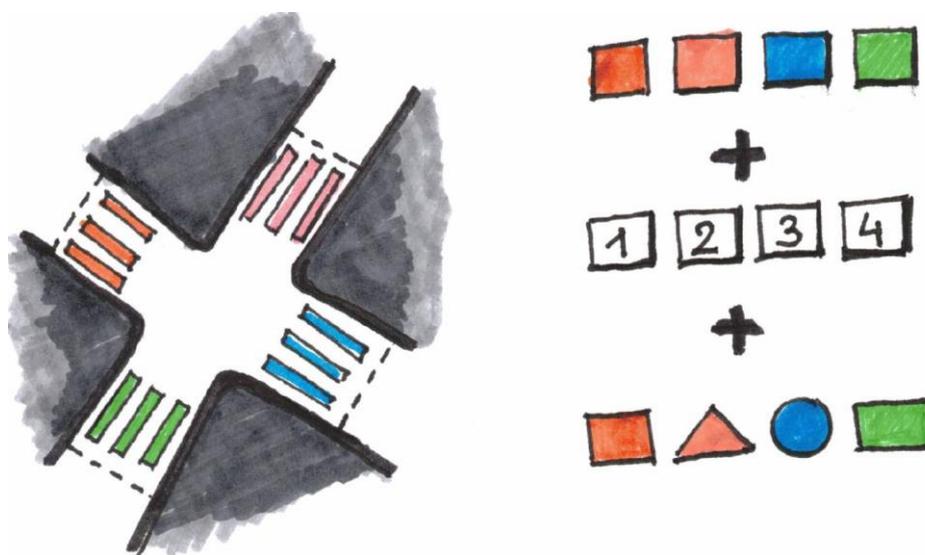


Figure 4. Contemporary playgrounds can be streets (drawing by A. Rubczak)

Public spaces like neighbourhood streets are always spaces where children playing streets, crossing streets and learning traffic rules. Streets as an integral part of the site, where children grow, has its significant role in creating childhood memories, its subjective perception of street. In the case of children 0-5 it is interesting how the layer of street can be stimulating for social and educational development. Streets are generally not safe places for children 0-5 but it is possible to re-design traffic rules and pavements. Try to answer the question: why streets are public spaces with so much potential for child-friendly transformations? On a global scale a street represents around three quarters of a city's public space. The social nature of this space is associated with the nature of the urban pattern and the transport mode (shape of streets, nodes, visual

accessibility). That is why it is worth considering transformation of streets to safe, but also stimulating and inspiring public spaces .

3.1. Design play space for all children

According to research there is still no space in which disabled children will feel equal in playing with all children. Different disabilities require different solutions. Examples include dysfunctions such as autism, adaptation and movement problems. A very big challenge is to design the space in such a way that able and disabled children do not feel discomfort and exclusion. There are two types of favorite activities of blind and visually impaired children: playing with sounds and sensory playing. These games help children train their orientations around their body as well as the space surrounding them, and develop their perceptiveness, imagination and thinking.

For the kids with autism or with concentration problems a path around the playground could be helpful. They can walk around the entire playground and see what is happening. They can choose quiet places, they will feel more comfortable when they can just observe the situation. What is more, children with autism could easily get overwhelmed. For those children a quiet place should be provided where they can calm down and be alone for a while.

3.1. Connect generations-contemporary playgrounds

Contemporary playgrounds that are next to nursing homes are an interesting solution. An example of this is the square in Heerlen in the Netherlands. The square is visited by elderly people, which promotes integration with the local community of the district. The solution has a positive effect on the elderly. Playgrounds are not only a space for children, so thanks to our research we discovered the problems we have in Poland, where the elderly in public spaces are still not fully taken into account. There is still little space for integrating children and the elderly.



Figure 5. Contemporary playgrounds that are next to nursing homes are an interesting solution. An example of this is the square in Heerlen in the Netherlands (fot. A. Rubczak)

5. Conclusions

Still the best public spaces are organized and design as place only for them. The question is what type of designed space is the best. Looking through evolution it seems to be adventure public space. In February 2020, at the 10th session of the World Urban Forum, UNICEF and UN-Habitat launched an initiative to develop "Principles and Guidance for Public Spaces for Children". World Vision was among the key stakeholders invited for an initial brainstorming on what this guidance document could look like. In this first meeting, World Vision (represented by Aline Rahbany, Technical Director, Urban Programming) suggested that no principles or

guidance for children should be developed without their participation. This consultation aims to capture children's perspectives and lived experience in the public spaces in their communities. The questions focused on four different characteristics of that experience: proximity and accessibility, safety, cleanliness, stability, usability and playfulness: as children should be able to use the space for defined and undefined forms of play, physical activity and intergenerational interactions. City authorities, planners and designers should imagine how young children and their caretakers or pregnant women feel.

5. References

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