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TESEV
BRIEFS

**Data-Driven
Strategy
Development
for Children's Play
in the City**

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All urban and green spaces, including playgrounds which are areas created especially for children in the city, should be based on spatial planning and quality factors that include children's needs and preferences. And planning requires the use of data.

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The fastest growing and learning period in human life is the period of early childhood. Research shows that 85% of the human brain is formed within the first 1.000 days and that the connections between nerve cells develop very rapidly and intensively during the first 3 years. Especially in the early childhood period, growing in a rich environment in terms of stimuli, the connection circuits become stronger in the child's brain in areas that specialize in different skills, and these connection circuits set the ground for the child's mental abilities such as learning, attention and memory.¹ For this reason, it is crucial for the cognitive, social and physical development of the child to interact with the environment through play and to create permanent and strong connections through this interaction (Oates, 2013).

Considering that almost half of the child population in the world today live in cities and that children born into the existing urban population account for approximately 60% of urban growth,² the importance of child well-being for the future of cities becomes clear. When we consider which areas in the city children use to explore, socialize and play, the first ones coming to mind are school gardens, parks, green areas and playgrounds that are reserved for them with the intent to support their development.

These areas which have an important place in the daily urban life of children are designed and planned by local governments. All urban and green spaces, including playgrounds which are areas created especially for children in the city, should be based on **spatial planning and quality factors** that include children's needs and preferences. And planning requires the use of data.

In this article, I will first discuss the problems of the existing playgrounds that we are accustomed to see in the city today, especially for those in early childhood and their caregivers. And in doing so, I will try to explain the design and production ideas that lie behind playgrounds from the perspective of local governments. In the brief, I will subsequently mention the Istanbul Play Master Plan, which is being implemented for this purpose, by reference to the necessity of complying with the spatial design criteria and of collecting data about the existing parks in solving these problems related to the parks, and to what the dataset to be collected should include. Finally, I will discuss what benefits this data to be collected will bring to local governments.

An Overview of Playgrounds

Contrary to the practices we are accustomed to see in the city, the concept of playground refers to almost every place, such as a platform, area or corner where children can create the play spontaneously and explore freely without adult control in a way to satisfy their feelings of curiosity and exploration. In short, playgrounds are areas where children

can put their play activities into practice. These areas should not be limited to specific activities and equipment. Children should enjoy the freedom to create their own plays depending on how they see the potential and relations of the place ready to hand in their environment. However, due to increasing concerns over child safety, traffic, poor planning, pollution and restrictions on access to the outside environment, especially in developed countries in recent years, children's access to public spaces and levels of independent mobility are on the decrease in many parts of the world (Shaw et al., 2015). Children's access to open spaces which are important for their plays is limited both by local governments through their planning, design and management methods and by adults through parental control. Yet, the goal of creating a quality, accessible and safe space for play requires overcoming overprotection, accessibility constraints and care challenges. Therefore, in cities, initiatives that support and encourage play as well as designers and managers who have know-how in this area are needed.

Green spaces and playgrounds in Turkey are designed and built under the responsibility of metropolitan and district municipalities. In recent years, with the development of **safety standards** and increasing **parental concerns** regarding playgrounds and play equipment, decision makers have adopted a **protectionist policy** that prioritizes safety rather than designing playgrounds that support the development of children and offer them various opportunities. The playgrounds

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which we are accustomed to see in the city as the product of this protectionist policy consist of standard and uniform implementations that are defined for the exclusive use of children, allow the development of only a few specified skills of the child, do not enable different age groups to play together and are visually and

functionally very similar. Consisting of colorful structures placed on safe rubber surfaces, these spaces neither offer children flexibility for their creative and free plays, nor serve as an inviting public space for other residents of the city (See Figure 1).



Four different playgrounds from Beyoğlu District: 1- Bademlik Park (Beyoğlu District Municipality), 2- Sivas Park (Istanbul Metropolitan Municipality), 3- Halıcioğlu Park, 4- Sütlüce Park (İyikul, Derya 2019).

Playgrounds are generally created by local governments envisioning a high number of users, especially for children aged 4-11. The design of space and equipment is not generally suitable for those in early childhood period and their caregivers. And what's more, these parks are not used extensively by older children constituting the intended user profile.³ In addition to these, it would not be wrong to assume that these places are of limited value for the users and to criticize them in that they are designed in consideration of adult demands, economic interests and safety standards, offer very limited and mediocre activity opportunities that are far from any diversity and creativity.

On the other hand, according to play theories and the information obtained on the holistic development of the child, the primary goal in the design of playgrounds should be creating **spatial opportunities** that will maximize the child's interaction with her/his environment through play (Nebelong, 2014; Solomon, 2014). As opposed to the production of fenced playgrounds consisting of a single type of playground equipment by local governments, it is necessary to emphasize the importance of accessible playgrounds that are inviting for all user groups with their specially designed landscape features and openness to interaction with nature. And this emphasis

brings several spatial qualities that decision makers do not take into account in the planning and design process of playgrounds into question. In order for these spatial qualities to be examined and brought to the agenda in design processes, it is necessary to make use of the data on the current situation. In the next section, the potential benefits that data collection and use of collected data will bring to local governments in terms of determining the specific qualities and designing the parks according to these qualities are explained within the framework of an example.

Use of Data in the Design of Playgrounds: An Example within the Scope of the Urban95 Program

When considered economically and politically, it is not realistic to demolish and rebuild the playgrounds found in large numbers in cities today. For this reason, it is necessary to focus on the possibility that existing parks can be turned into a real and important part of the world of play with the interventions to be made to maximize their potential. With this motivation, educators, designers and local authorities should discover new ways to meet children's play needs, increase the potential of existing implementations and ensure that more children participate actively in urban life.

➔ **Istanbul Play Master Plan curated by Superpool and Istanbul Metropolitan Municipality (İBB) within the scope of the Urban95 Program, aims to develop various strategies based on these requirements by focusing on the idea of a playable city rather than a city with playgrounds.**

Istanbul Play Master Plan curated by Superpool and Istanbul Metropolitan Municipality (İBB) within the scope of the Urban95 Program,⁴ aims to develop various strategies based on these requirements by focusing on the idea of **a playable city** rather than **a city with playgrounds**. Within the scope of this study, the aim was to collect data on playgrounds and green areas that are under the responsibility of İBB (Istanbul Metropolitan Municipality) and to develop a policy based on the data to be obtained via the Playgrounds Evaluation Form which I prepared on the basis of the personal experience and information I gained from the Urban95 Program and included in my master's thesis⁵ published in 2019. The aim was the implementation of the evaluation form to approximately 400 parks in Istanbul by the relevant units of İBB by making observations in the field. The analysis and mapping processes of the dataset which has not been completed yet will be conducted with TESEV.⁶

In order for İBB to maximize the quality of its parks, to improve the play environments and to contribute to the continuity of the play, the field study aims to create a dataset on the current situation of the parks and, on the basis of the analysis of the data to be obtained, to assess both the qualities that affect the use and the user benefits, and the physical conditions and special qualities functioning to make the space a more effective and quality public space. In short, a checklist of features encouraging and preventing the use of the playgrounds and

playing in general will be created. The analysis of the dataset to be obtained is expected to provide a series of indicators that give local governments, their stakeholders and citizens a general idea about the scope, quality and adequacy of the productions for outdoor play. The purpose of creating a database within the scope of the Istanbul Play Master Plan is to determine to what extent all the parks of İBB meet the outdoor play needs of children and young people, to identify the specific strengths and shortcomings of these spaces and to help identify ways to improve play opportunities for outdoor plays.

The dataset to be collected allows us to evaluate the parks under 4 main headings: **location, accessibility, general features** and **play value**. Under each of these headings, the following questions are asked to evaluate the spatial qualities of playgrounds and to determine what their deficiencies are.

Location: Taking the playground itself as a center, this heading points to a larger space surrounding it and how the park interacts with that space. Under this heading, the necessary questions about the location and context of the playground are asked:

- Is the playground open and inviting to the public?
- Is the used space large enough to achieve its purpose?
- Is it frequently used by children?

- Do green and open spaces seem sufficient at first glance?
- Are there any residences, workplaces/shops around directly facing the park?
- Is the playground protected from noise, wind, traffic and dust?
- What kind of opportunities/physical activities are there in the environment?

Accessibility: Points to the physical, visual and cognitive connections of the playground itself, taking into account the walking trails in and around the playground, various modes of transportation to the playground, safety issues, and the experience of disabled children and stroller users.

- Is the playground located on a beaten track and easy to access?
- Is it close to public transport networks?
- Are there more than one access network?
- Are the roads to the playground suitable for disabled people and stroller users?
- Are the entrances and exits of the playground suitable for disabled people and for use of strollers?

General features: Evaluates features that contribute to the quality of the play experience and other activities.

- Is the playground well maintained?
- Is the playground protected from driveways/traffic?

- Is there a parking place for bicycles and strollers?
- Is there a toilet to take care of babies and kids?
- Is the playground clean?
- What are available for the cleaning of the playground?
- What are available for the safety of the playground?
- Are there seatings near the playground?
- What are available to provide contact with nature?
- What are available for shading?

Play value: Examines the opportunities that allow the child to do things such as *creating, manipulating and making an impression on the playground*. Opportunities can be considered as that areas of possibility containing materials that enable children to invent, build and to evaluate and change the place on their own.

- Is there a certain diversity in structure, color and material?
- Does the playground offer exciting and bold play experiences?
- Are there any playworkers⁷ or volunteers organizing regular activities in the park?
- Which of these physical activities does the playground allow?

Crawling, walking, jumping, bouncing, climbing, balancing, running, hanging, sliding, swinging, cycling.



Local governments in Istanbul have no more comprehensive and detailed data on playgrounds than those on their size and location. And since lack of data hinders the evaluation of the current situation and the detection of problems, mistakes made in planning and design processes as well as hitches encountered in use are repeated and multiplied in new implementations.

- What possibilities are there for creative plays?

Playing with water, loose and moving parts, devices for sound making/drumming, surfaces for drawing/painting, playing with sand/soil/clay, digging/building, open/closed minor spaces, open areas without equipment, vegetal elements such as leaves and cones, spaces and materials for symbolic play.

- What possibilities are there for social plays?

Spaces for sitting, hiding and conversing, sandbox, playhouses, attractive spaces for mixed age groups.

- What possibilities are there for the development of the senses?

Playing with sand/soil/clay, surfaces for playing with water/drawing/painting, deciduous trees, edible plants.

- What are the features that make the playground unique?

Nature, topographic diversity, non-catalog /specially designed items, wide variety of play opportunities, the caregiver's opportunity to participate in the play.

Local governments in Istanbul have no more comprehensive and detailed data on playgrounds than those on their size and location. And since lack of data hinders the evaluation of the current situation and the detection of problems, mistakes made in planning and design processes as well as hitches encountered in use are repeated and multiplied in new implementations. To exemplify from the above-mentioned headings, the dataset to be obtained will guide us to develop various solutions available for parks of different scales. For example, while the small and detached playgrounds and green areas in our neighborhoods are advantageous in terms of **location** and **accessibility**, the fact that they are designed with a standard play equipment, the dimensions of which are not suitable for the use of that specific area may render them inadequate in terms of play value and general features. For, in such a case, the playground cannot provide enough space for both the landscape design that we can use to create various play opportunities and the application of the elements that will serve the comfort conditions of the user **(See Figure 2)**.

On the other hand, the large-scale parks (urban parks, and green areas located on the main arteries on the coastline) that serve a high number of users in Istanbul prove sufficient in terms of **play value** and **general features** in that they have abundant empty



Acısu Playground in Beyoğlu District (İyikul, Derya 2019).

spaces without equipment and service areas (e.g. snack bars and rest rooms), are designed with natural elements and offer various seating areas with shading opportunities. Yet, especially when their distance to the socio-economically disadvantaged neighborhoods is considered⁸ a wide variety of problems are encountered in terms of **accessibility** to the playgrounds located in these areas where the user profile is diversified (including disabled people, people with strollers, bicycles, etc.) and the traffic flow is fast.

Benefits to be Obtained by the Dataset

The dataset which will be collected under four main headings will identify the shortcomings and strengths of the ongoing understanding of planning and design in creating an urban space, as is shown in the examples presented above, and will provide a basis for the development of a new understanding in this sense. Possible benefits to be obtained from the data to be collected are discussed under each heading below.

Location: Locating parks so as to render them a part of daily life, creating spaces for encounters will be an important design input in terms of both the safety of parks and their frequency of use. Especially creating a neighborhood-scale encounter area will allow children to interact with each other and their surroundings, and to set plays to

be played together. This will also support the socialization needs of other users such as teenagers, parents and other adults.

Accessibility: Since making the roads surrounding the playgrounds safe and carrying out the planning and implementation in a way to meet the needs of disabled individuals, stroller users and bike riders will facilitate the access of users of all ages to the parks, it will indirectly allow children to spend more time in the parks rendering them more preferable places. As Jane Jacobs puts it, what makes parks successful is that people use them, and if people don't use them, parks are doomed to isolation and failure (2012).

General features: In order for both children of different age groups and adults to choose a playground, it is important that it is well-maintained and clean, and contains elements that take into account the climatic conditions. Especially in large playgrounds that are intensely used, designing additional support areas such as baby-care rooms, restrooms, fountains, stroller and bicycle parking places for kids and their caregivers will allow users to spend longer times in the park and to prefer the park again.

Play value: With reference to the dataset to be obtained, we can say that the play equipments used in the existing parks provide few physical play opportunities and do not provide opportunities for creative and social plays.

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... With the dataset to be obtained, it will be possible to make particular and location-specific spatial evaluations and recommendations for each individual park.

These playground equipments should certainly be supported with empty spaces, firm soil and natural elements. Local governments should include sandboxes, small rocky hills, gravel paths and water games in their park designs. Instead of plastic and rubber materials that we are accustomed to see, loose parts⁹ that can be manipulated by children should be included in the playground. This will enable children to have control over their playgrounds, to change their environment according to their needs and to develop a certain connection (sense of belonging) with the place.¹⁰

Other Recommendations for Local Governments with Respect to Design and Planning

With the dataset to be obtained, it will be possible to make particular and location-specific spatial evaluations and recommendations for each individual park. In addition to these particular recommendations, the general recommendations brought forward by the dataset in order to develop



Pop-up playground in Beyoğlu and the “closed to traffic, open to play” street event in Sultanbeyli, both conducted by Superpool in 2019 within the scope of the Istanbul95 Project (Superpool Archive).

comprehensive policies and guide strategies should also be taken into consideration.

- Classic ideas should be consulted in order to increase the play value of green spaces and playgrounds; adventure playgrounds, children's gardens, urban orchards and new playground initiatives developed as an alternative and with response to the current way of playground production should be consulted; pop-up playgrounds¹¹ and street events closed to traffic¹² should be consulted, and design, planning and programming processes should be conducted with the inspiration taken from these ideas **(See Figure 3)**.
- Designing every part of the playground or trying to achieve maximum use with the equipment is one of the challenges faced in today's playgrounds. It should be allowed that playgrounds change over time and it should be considered that their intended use may not remain the same. In this way, children should be enabled to develop the playground with their social and creative plays.
- A city livable for children is a better city for all, and the mission of creating better cities for children implies creating quality urban spaces that allow play. For this reason, playgrounds should not be considered as the only available and accessible places in the city for children's

outdoor plays. In addition to green areas and playgrounds, we should also bring forward streets, playgardens and squares as playable areas in the city.

- In big cities, children's play needs may vary by region they live in, their age, gender, ethnicity, religion and ability level. Therefore, that the needs of the children are evaluated in a socio-economic context and within the local characteristics of the location of the playground should be ensured. With this purpose in mind, a wide cooperation consisting of various disciplines should be formed.
- The accessibility of parks makes it necessary for the relevant units responsible for both green spaces and transportation to work together and develop inclusive solutions in this regard. In order to ensure the independent mobility and play rights of children in the city, local governments should invite all responsible bodies dealing with the issues regarding children, play and accessibility to cooperate.
- Local governments should also discuss and evaluate their own conditions in terms of the awareness of civil servants about children and play, labor regulations, design guides, etc., which are crucial for the implementation of strategies regarding children and play, and prioritize these topics in their future action plans.

NOTES

1. One of the Superpool studies conducted within the scope of Istanbul95, The Ideas Guide for Playground for 0-3 Years emphasizes why play is important in early childhood and by focusing on the design of playgrounds from the perspective of child development, offers inspirational ideas and suggestions to public administrators, decision makers and designers to generate new ideas in this regard.

2. In The State Of The World's Children (SOWC) report published by UNICEF in 2012, it is stated that the world's urban population increases by 60 million each year and 7 out of 10 people will be living in cities and towns by the year 2050. And it is estimated that children to be born into this urban population will constitute 60% of urban growth.

3. This inference is based on the findings I obtained as a result of the field study I conducted on the basis of observations in 57 playgrounds in Beyoğlu district between 2018-2019 and of various researches on the time children spend at the playgrounds. In this context, the following books and studies can be examined: Craig H. Hart, Children on Playgrounds (1993); Willian H. Whyte (the founder of Projects for Public Spaces-PPS), The Social Life of Small Urban Spaces (1980) and S. Herrington and C. Lesmeister's joint research "The Design of Landscapes at Child-Care Centres: Seven Cs" published in 2006.

4. The Urban95 Program conducted with the support of Bernard van Leer (BvL) Foundation carries out various social studies in different cities of the world in collaboration with different disciplines on the development of socially and economically disadvantaged children between the ages of 0-3. The Istanbul leg of the program has been carried out since 2016 in a multidisciplinary collaboration, including Boğaziçi and Kadir Has universities, district and metropolitan municipalities, TESEV (Turkish Economic and Social Studies Foundation) and Superpool.

5. İyikul Kotan, Derya. "Kentteki Oyun Alanları Üzerine Eleştirel Bir Okuma: Beyoğlu Örneği" ("A Critical Reading on Playgrounds in the City: The Case of Beyoğlu"), (Master's Thesis, Istanbul Technical University, Institute of Science and Technology, Istanbul 2019)

6. The experiences gained from "Urban95: A Data-Driven Policy Tool Project" developed by TESEV within the scope of the Urban95 program, focusing on the issue of children, and the maps of the interactive platform, harita.kent95.org which is the product of the project were also utilized in the study. The project is of great value in terms of data collection and development of data-driven policy on the child population in early childhood, on green areas and playground services in Istanbul.

NOTES

7. Playworker was born out of the movement of adventure playground. The primary function of the playworker is to create a safe and open-ended space for children. Not interfering with the children's play, the playworker only supports the plays they will produce with the least intervention when necessary, and gives priority to the plays that children choose themselves.

8. "harita.kent95.org" shows the number of children per neighborhood and their income status calculated on the basis of the average real estate values. On the map, you can see the most disadvantaged neighborhoods with the highest population of 0-4 year old children and also access the information of such places as parks, kindergartens and medical centers affiliated to district municipalities, which are added into on the maps.

9. In the 1970s, sculptor and architect Simon Nicholson came up with the idea of "loose parts" to stimulate creativity. These individual parts that are not attributed a definition to, can consist of any material that can be moved, removed, assembled, redesigned, disassembled and reassembled.

10 Rasmussen (2004) argues that giving children the opportunity to explore at least a part of the playgrounds designed and created for children's play will enable them to accept these areas as places of their own. Similarly, children's attachment (sense of belonging) to a specific place tends to become stronger in places they love or use frequently (Chawla, 1992). Children can easily adopt the repeatedly usable places in which many connections can occur, creativity and independence can be freely expressed and these activities can be protected from dangers as their own playground.

11. The pop-up playground temporarily turns any place into a playground. This can be a place on the edge of a forest, a field, a small greenery, a street or a closed area. It is essential that it is set up with easily transportable, easily available and cheaply providable materials. See: SUPERPOOL (2020), Design Guide for Pop-up Playgrounds.

12. Closing a street to traffic temporarily for two to three hours at a time and organizing various play events with children and adults during this period.

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