# Play in the City

URBAN95
עיר גדולה לילדים קטנים

הקליניקה האורבנית
THE URBAN CLINIC
عيادة التخطيط الحضري

האוניברסיטה העברית בירושלים
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# Contents




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# Part One: The History of Playgrounds

The modern playgrounds known to us today in the west were created through a long process beginning in the 1940s and continues today. The changes in the structure of playgrounds reflects different value perceptions, progress in knowledge of child development, and a balance between willingness to allow children freedom and independence and increasing trends overprotective parenting styles.

The knowledge in this presentation is based on Galina Arbeli's groundbreaking research on the origins and development of the design of playgrounds in Israel during the golden age of the 1970s.

Click here to view Galina Arbeli's full lecture at the Urban95 Urban Network event:

# Play and Independence: History of Playgrounds

**The development of playgrounds began worldwide at the end of the 19th century, and in Israel at the beginning of the 20th century.**

Until World War II, playgrounds were seen as training facilities for children. They consisted mainly of steel pipes, high ladders, slides and swings. These original elements continue to be the basis for playgrounds today, but in a less free, safer, and smaller version. We've also replaced steel and metal with other materials – namely plastic.

## Denmark and Britain in the 1940s and '50s: The Birth of Adventure Playgrounds

During the Second World War, Danish architect Karl Theodore Sorenson created the first "junkyard playground" following the observation of the children playing in the ruins created by the war. For the first time, design centered on the ways in which children prefer to play themselves, freely, while creating a physical environment from their point of view. In 1946, British landscape architect Lady Allen visited Hartwood in Denmark. She soon began promoting the idea of the junkyard playground in London, which was devastated by bombs and offered an excess of playground materials.

In London, the junkyard playground was called an Adventure Playground. In such a garden there are no ready-made facilities, and all the play spaces are built by children. "Play Workers" are in the garden at all hours of activity to help children create their own play environment, but do not intervene on their own initiative or guide them. In Adventure Playgrounds children are free to build things and even start fires.

**Hiawatha Playground | 1912**

**Notting Hill Adventure Playground, 1960~**

# Play and Independence: The History of Playgrounds

## Continued: The U.S. and Europe

The idea of the Adventure Playground spread outside the UK in specific cases, but more broadly it inspired a series of playground designers in the US, Europe and Israel to create playgrounds that emphasize a sense of adventure, creativity, and the right of children to shape the physical space in which they play.

Architect Richard Dattner, who designed playgrounds in Central Park in New York in the 1960s, was simultaneously influenced by adventure parks and by Piaget's stages of child development. His playgrounds were designed to foster processes of physical, emotional and social development at all stages. Dattner didn't involve children in the designing of his version of the adventure park but did aim to give them a maximum measure of freedom and independence. He designed parts of his playgrounds to be dismantled and assembled as part of play.

In Switzerland the "Robinson Crusoe Park" was built in 1954 in a residential district of Zurich by architect Alfred Tresshel and Alfred Lederman, a member of the city council. The playground was designed to give a strong sense of playing in nature, and logs and cut branches were used as climbing facilities. This model of a playground was the basis for the development of the first community centers in Switzerland which combined opportunities for social activities for all ages.

Adventure Playgrounds in Central Park, 1967. Design: Richard Dattner.

Robinson Crusoe Park, Zurich 1954

# Play and Independence: History of Playgrounds

## The 1970's: The "Golden Age" in Israel

The influence of Sorenson's playgrounds, Lady Allen, Dattner and others came to Israel through the work of architects who studied and acquired experience in Europe and the United States in the 1960s. The wooden pillar adventure parks designed by architect Gideon Sarig, the most famous of which are in Hayarkon Park, remind us of design principles similar to those of Dattner which enable children to play freely, climb to heights and experience risk and adventure. Since the 1990s these parks have been neglected due to maintenance difficulties and safety concerns, and most of them have been destroyed.

In the 1960s and '70s playgrounds were established with special emphasis on imagination and unique designs, usually made of concrete, wood or fiberglass. The most prominent examples of this period are the Avishur playgrounds designed by landscape architect Zvi Dekel in Arad, the "Monster" Park designed by Niki de San Paul in Jerusalem, and "Sea Play - a whale sculpture in the Charles Clore Park in Tel Aviv.

Despite the trend that began in the 1990s of returning to industrial and standard play facilities, several unique playgrounds were created in the following years. Interesting examples include the "Whispering Wheat" park designed by Orna Ran in Efrat, which combines bridges and tunnels of concrete and stone in a natural grove, and "The Grasshopper" designed by Ruslan Sergeyev in Modi'in, which combines familiar climbing facilities with a unique sculpture by the artist.

The Yarkon Adventure Park, 1971. Design: Gidon Sarig. Photo: Lior Yosef.

The Grasshopper in Modi'in, 2001. Design: Ruslan Sergyev. Photo: Ruslan Sergyev.

# Part Two: The Evaluation of Play Space

## From a Child Development Perspective

The evaluation tool for the above game spaces was developed in the framework of the "Urban Learning Network" of Urban95 in Israel

The assessment tool focuses on the contribution of play spaces in the city, especially playgrounds, to the development of children aged 0-5.

This evaluation tool is intended for municipal decision-makers, public space designers, educators and children's development professionals, parents, and residents who wish to create high-quality, safe and loving play spaces for children.

# Why Play is Important for Development

Play has a significant impact on early childhood development (ages 0-5), however this is often overlooked or disputed, and the freedom and spontaneity inherent in unstructured play is often regarded as unimportant.

If children play only how, when and with whom they want, play can seem like a non-essential activity that doesn't need to be encouraged. In fact, the opposite is true: the more freely children play, the more useful it is to children's development. Therefore, urban policy makers must recognize the importance of free and varied play and evaluate the developmental contribution of the various types of play so that they can promote high-quality and beloved play spaces for children in the city.

**Play is sometimes described as a kind of activity that is fundamentally unimportant, trivial or devoid of any serious purpose. This is a misconception. Playing, with all its rich varieties, is one of the great achievements of humankind.**

**Whitebread, The importance of play 2012**

# Evaluation of Play Spaces: Examples from Abroad

**Academic and professional knowledge of play and development in early childhood is very rich. It's been studied and implemented over decades, especially in the context of kindergartens and early childhood care. At the same time, evaluation of public play spaces based on that knowledge is a relatively new field. Evaluation of public play spaces has been developed in recent years by a number of researchers and public bodies that promote play policy around the world.**

Architects and researchers in child development who have worked to promote better playgrounds have created documents dating from the 1970s that link development to different types of play. Studies by Singer and others present in depth the way play and imagination contribute to development. An easy-to-read conceptualization of the importance of play development can be found in Whitebread's The Importance of Play (2012). Architect Tim Gill presents the psychological and developmental importance of play that allows for a great deal of challenge and fear in a society characterized by overprotection of children in the comprehensive document No Fear.

Some of the innovative documents in this field, on which the evaluation tools presented are largely based have been created in recent years by Play England, a semi-governmental public body in England that develops urban play policies.

Design for Play offers methods and case studies from England to design high-quality play spaces. This document offers a typology of various types of play in a way that allows playground designers to choose a design that will suit the needs of children of different ages, and of different challenge levels, changing physical spaces, encounters with nature, imagination and free movement.

In addition, in 2009 Play England developed a series of evaluation tools for playgrounds and play policy. The evaluation tool for the allocation of play spaces directs users to distinguish special local characteristics of playgrounds, including; the quality of play according to various types of play, level of accessibility to children, and the level of safety and comfort in these spaces.

The field of playground assessment has continued to develop in recent years, far beyond the scope that can be described in this document. An interesting evaluation tool was developed by the play and learning researcher Robin C. Moore in 2017, which is designed to test the quality of play facilities. KaBoom, which promotes play in the U.S. published the first evaluation of "play spaces that aren't playgrounds" in partnership with the Ghel Institute in 2018 as part of the "Play Everywhere" project.

The evaluation tool in this document focuses on the contribution of play in public spaces to the development of children up to age 5 in Israeli cities. Different aspects of the evaluation tool relating to types of the play, developmental challenges, child safety, comfort, and the surrounding environment have been adapted to the Israeli context. However, they may also be useful in other contexts around the world, especially in places with a large number of young children in urban areas.

# Five Areas of Development

**There are five main areas of child development:**

1. **Physical development, gross and fine motor skills:** The ability to activate and control small and large muscle movements
2. **Cognitive development:** The ability to learn and problem solve
3. **Communication and language development:** The ability to understand and communicate using language
4. **Emotional development:** The ability to identify and understand one's own emotions and those of others, regulate emotions, and develop self awareness
5. **Social development:** The ability to make connections with others and manage relationships

# The Importance of Different Types of Play


**In order to provide the best opportunities for the development of children through play, it is necessary to recognize the variety and richness of different types of play.**

The word "play" can mean any free and spontaneous activity that children choose. Therefore, it involves activities that are essentially different from each other: Playing with dolls is not usually like climbing a tree or running a race, and these are not like building structures in a junk yard. Each type of play is made better in different physical conditions and environments, each of which is expressed at a different pace in different children and ages, and each type of play offers children various developmental advantages.

To evaluate the quality of playgrounds and other play spaces we must ask: which kinds of play are we allowing and encouraging in this space, and which are we not encouraging? Which developmental benefits are we gaining, and which do we lose?

The following pages present a map of the four types of play and their unique contributions to developmental areas. These descriptions can help evaluators and leaders identify the different types of play present in the playground and how they can contribute to valuable play spaces.

# Freedom of Movement

## Activities: crawling . running . jumping . climbing . bicycle riding

### Contribution to Development

**Physical development:** Running, jumping, and climbing improves motor control in large muscles

**Cognitive and emotional development:** Free movement reduces stress levels and the secretion of cortisol in the brain, as well as improves concentration

**Sources:**

Pellegrini & Smith (1998)
Children's right to play - BvLF


Train Tracks Park, Jerusalem

# 2. Physical Challenge

**Activities: climbing high • sliding • jumping from high places • balancing from high places • turning on an axis • rocking**

## Contribution to Development

**Emotional Development:**

Challenging play allows children to test abilities, feel risk and adventure, deal with fear and overcome it, and strengthen independence

**In addition, challenging play reinforces physical/ motor development**
by promoting practicing balancing and physical effort

**Sources:**

(Gill (2007
(Little & Wyver (2008

**Is it too high for me? Will I make it this time? I'm afraid but I'll get over it.** Jumping or sliding from a place high enough but not too high allows children to gradually develop abilities and independence.

**It's more fun to climb on the rail from the outside!** A device that can be played in more than one way is suitable for children with different physical and emotional abilities.

**Lollard Street Adventure Playgroud, London UK**

# 3. Sensory Exploration and Manipulation

**Activities: Touch and play with different materials: sand and mud . water . plants . animals**

**Manipulation: building . construction . pile making . destruction . painting/drawing**

## Contribution to Development

**Cognitive Development:** Free play with different items and materials allows for the development of problem solving skills, and also strengthens social and emotional development

**Language and Communication Development:** Encounters with nature allows for the acquisition of complex vocabularies

**Physical/Motor skills Development:** Practice playing with and grasping different objects and materials allows for the development of fine motor skills.

### Sources:


Burriss & Tsao (2002)

Woolley & Alison (2013)


**What do I feel on my fingers? Is it pleasant or unpleasant?** Children aged 0-5 love to test and touch new materials and textures

**I can build and destroy, add, tighten, crumble, or dissolve.** Children can concentrate for a long time on a game with malleable materials and objects that allows them to change their play environment

**Sand, soft earth, mud, grass, shrubs and puddles** can give children various sensory experiences

Photo by: Natural Learning Initiative, NCSU

# 4. Imaginative, Social Play

## Activities: Imagining with objects and in play structures • role play • hide and seek

### Contribution to Development

**Emotional Development:** Imaginative play reinforces self-regulation and emotional sensitivity towards the child and others

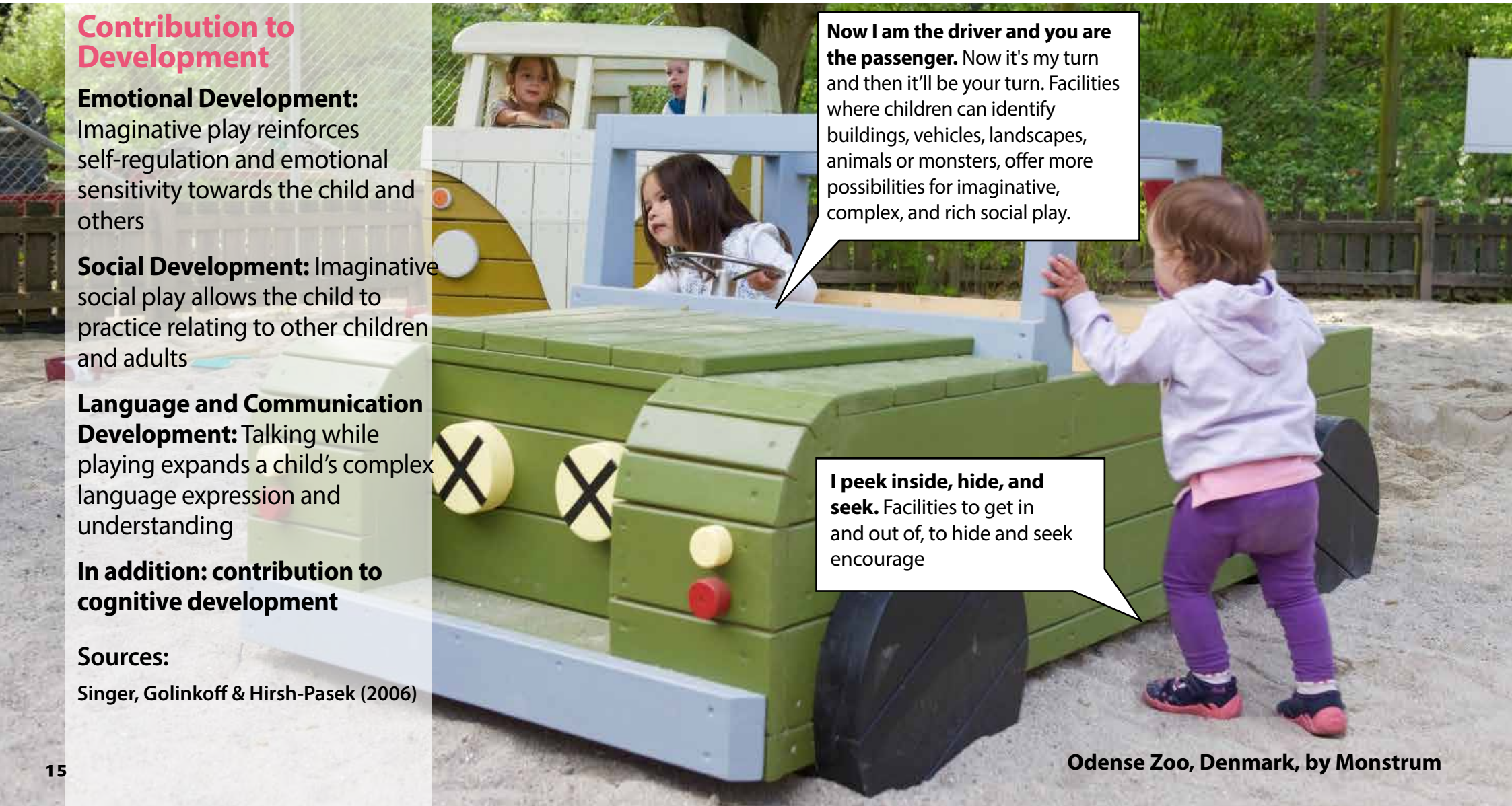
**Social Development:** Imaginative social play allows the child to practice relating to other children and adults

**Language and Communication Development:** Talking while playing expands a child's complex language expression and understanding

**In addition: contribution to cognitive development**

**Sources:**

Singer, Golinkoff & Hirsh-Pasek (2006)




Odense Zoo, Denmark, by Monstrum

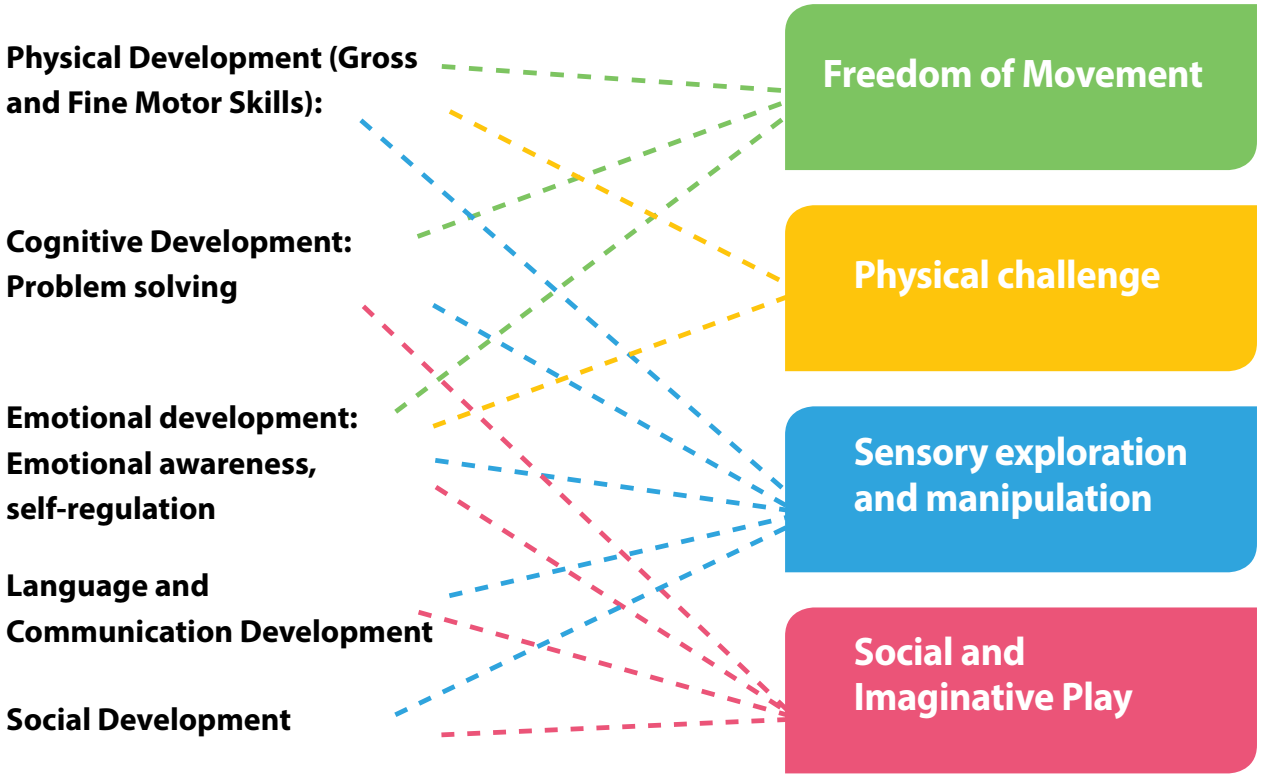
# Do Playgrounds Encourage Development?

**An overview of the contributions of each type of play to development as presented in the previous pages, is the basis for understanding the meaning of encouraging one type of play or discouraging another.**

Many playgrounds are designed to encourage mainly two types of play: free movement and physical challenge. Although these two areas of play are important in and of themselves, focusing on them alone may reduce the ability of the playground to contribute to development in other areas.

Standard playgrounds based solely on industrialized facilities do not allow many opportunities for sensory exploration and manipulation, and often reduce the possibilities for imaginative and social play. This means missing out on contributions to cognitive, language, communication, and social development opportunities.

Beyond developmental contributions, non-varied are also more boring playgrounds since play is a free and spontaneous action. Children will sometimes spend hours on a particular type of play but will also usually look for additional stimuli and other types every 15-20 minutes. A limited selection of different opportunities for different kinds of play can cause children to choose to shorten their time at the playground.



# Evaluation tools: Measurement of types of play

## For every type of play choose a ranking

1 – (the opportunity doesn't exist at all) to 5 – (sophisticated, diverse opportunities are available)

**The wheel of the four types of play is a tool for the evaluation process which can also help in thinking about desirable design of new play spaces.**

Each segment of the wheel appears in the center of the title of the **type of play**

In the second circle includes **activities** that are part of each type of play, which can be assessed in the field while the playground is active. The extent to which the play space allows and encourages the type of play should also be assessed. This is not a comprehensive list. Personal interpretation should be used to add missing elements from the field experience.

In the third circle on the brightest background, there are design options that encourage any type of play. This is a basic list to encourage participants in the evaluation process to seek appropriate solutions and ideas for changes in their playgrounds. The last page of this document offers additional ideas that will enrich your toolbox.


**To download a printable version of the file click here:**

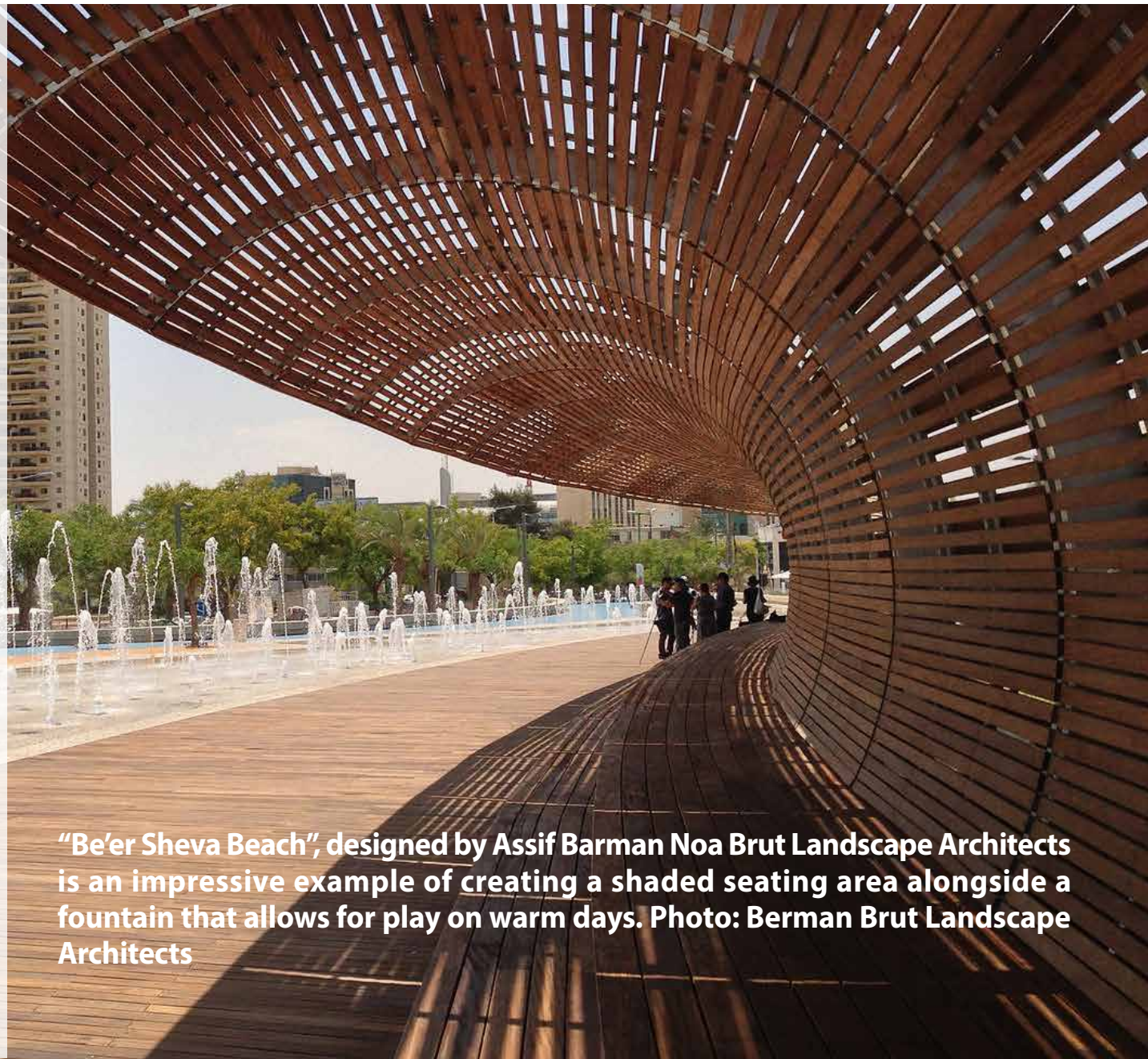
# Convenience for children and caretakers

**Children under age 6 do not come to playgrounds on their own.** In order for them to enjoy the playground, conditions are required to allow them and their caretakers (parents, older siblings and others) to relax in the play space. A playground with good physical aspects such as shade, drinking water, cleanliness, and protection from danger will allow more families to stay there for longer amounts of time.

Israeli families often come to the playground with several children. They will stay at the playground longer if all of the ages of children (and adults) will have an opportunity for attractive and appropriate activities.

**Therefore, we'll check if the playground has:**

- **Comfortable seating for caretakers?**
- **Water fountains, toilets, shade, and trash cans?**
- **Attractive activities for a variety of ages close to the playground?**
- **Is the playground clean, quiet, and protected from external dangers?**



**"Be'er Sheva Beach", designed by Assif Barman Noa Brut Landscape Architects is an impressive example of creating a shaded seating area alongside a fountain that allows for play on warm days. Photo: Berman Brut Landscape Architects**

# Third Dimension: Uniqueness and Locality

**Really good playgrounds are more than a collection of structures.** The playgrounds that become favorite childhood landscapes to which they want to return again and again are playgrounds that have a great deal of uniqueness, creativity, and adaptation to the place and environment in which they are located. Unique playgrounds can become points of reference in the urban space for children and allow them to better read the space around them, develop independence, and foster a sense of belonging.

**Therefore, as part of the evaluation process we'll ask how/if our playground:**

- **Is different and unique from other places?**
- **Relates to the physical and social space around it?**
- **Gives ample space for nature?**
- **Could be a beloved childhood landscape?**

**The play sculpture "The Monster" in Kiryat HaYovel in Jerusalem, designed by artist Nikki de San Paul is an example of a unique play space that has gained the status of a local landmark. Photo: Noam Frisman**

# הערכת מרחבי משחק
## דף הערכה לביקור בגן משחקים

מקום

שם המעריכ/ה

תאריך ושעה

### שלב 1: תנאים של נוחות למלווים ולילדים

| | | | | | |
|---|---|---|---|---|---|
| יש מספיק ברזיות, צל, שירותים ופחים | 1 | 2 | 3 | 4 | 5 |
| יש מקומות ישיבה מתאימים למלווים | 1 | 2 | 3 | 4 | 5 |
| יש פעילות מושכת עבור גילאים אחרים | 1 | 2 | 3 | 4 | 5 |
| גן המשחקים מוגן מזיהום, רעש וסכנות להיפגעות | 1 | 2 | 3 | 4 | 5 |

**הערות:**

### שלב 2: ייחודיות ומקומיות

| | | | | | |
|---|---|---|---|---|---|
| גן המשחקים מיוחד ממקומות אחרים | 1 | 2 | 3 | 4 | 5 |
| גן המשחקים מתייחס לאיכויות של הסביבה הפיזית והאנושית ומדגיש אותן | 1 | 2 | 3 | 4 | 5 |
| גן המשחקים נותן מקום ייחודי ומשמעותי לטבע | 1 | 2 | 3 | 4 | 5 |
| גן המשחקים יכול להפוך ל"נוף ילדות" אהוב | 1 | 2 | 3 | 4 | 5 |

**הערות:**

### שלב 3: הערכה לפי ארבעת סוגי המשחק

עבור כל פעולה העריכו כמה ילדים משחקים באופן זה, ולאורך כמה זמן. 1=ילדים לא משחקים כלל. 5=רוב הילדים משחקים באופן זה במשך לאורך זמן

#### תנועה חופשית

| | | | | | |
|---|---|---|---|---|---|
| לזחול | 1 | 2 | 3 | 4 | 5 |
| לרוץ ולקפוץ | 1 | 2 | 3 | 4 | 5 |
| לטפס | 1 | 2 | 3 | 4 | 5 |
| לרכב על אופניים ובימבה | 1 | 2 | 3 | 4 | 5 |
| **הערכה כוללת לתנועה חופשית** | 1 | 2 | 3 | 4 | 5 |

**הערות:**

#### אתגר פיזי

| | | | | | |
|---|---|---|---|---|---|
| לטפס, לקפוץ ולגלוש ממקום גבוה ובטוח | 1 | 2 | 3 | 4 | 5 |
| שיווי משקל על קורות, חבלים, עמודים | 1 | 2 | 3 | 4 | 5 |
| לקפוץ בין מקומות מוגבהים | 1 | 2 | 3 | 4 | 5 |
| להתנדנד, להסתובב במהירות | 1 | 2 | 3 | 4 | 5 |
| **הערכה כוללת לאתגר פיזי** | 1 | 2 | 3 | 4 | 5 |

**הערות:**

#### חקירה חושית ויצירת שינוי

| | | | | | |
|---|---|---|---|---|---|
| ליצור ערימות, לחפור, לבנות, להרכיב | 1 | 2 | 3 | 4 | 5 |
| לצייר (למשל באמצעות גירים) | 1 | 2 | 3 | 4 | 5 |
| למשש בוץ, אדמה, חול, אבנים, לגעת בצמחים, לתלוש ולהריח אותם | 1 | 2 | 3 | 4 | 5 |
| לראות ולגעת בבעלי חיים | 1 | 2 | 3 | 4 | 5 |
| **הערכה כוללת לחקירה חושית ויצירת שינוי** | 1 | 2 | 3 | 4 | 5 |

**הערות:**

#### משחק חברתי ודמיון

| | | | | | |
|---|---|---|---|---|---|
| להסתתר, להתגלות, להציץ פנימה והחוצה | 1 | 2 | 3 | 4 | 5 |
| לשחק משחק דמיון עם חפצים ומקומות | 1 | 2 | 3 | 4 | 5 |
| לשחק משחק תפקידים | 1 | 2 | 3 | 4 | 5 |
| לשחק "מחבואים" | 1 | 2 | 3 | 4 | 5 |
| **הערכה כוללת למשחק חברתי ודמיון** | 1 | 2 | 3 | 4 | 5 |

**הערות:**

להורדת קובץ להדפסה של טופס ההערכה הקליקו כאן

# Proposed uses for the evaluation tool

**When to use the evaluation tool?**
The evaluation tool is primarily intended to upgrade existing playgrounds but can also be used to create new play spaces.

**How is the evaluation tool used?**
In the first stage, we examine and evaluate existing play spaces in the field: Go out to the playground in the afternoon on a day with pleasant weather, or at any other time when the playground is at peak activity levels. Then evaluate the playground according to the actual activities of children and their caretakers. How many children are engaging in each type of play, and for how long? If it is difficult to perform the assessment on the ground, information from security cameras can also be used.

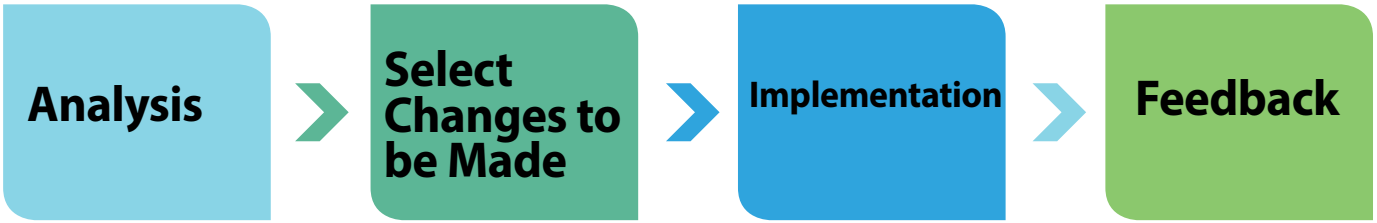
**Who should lead the evaluation process?**
Neighborhood or community/city planners, together with those responsible for managing and maintaining the playgrounds should lead the evaluation process and invite oth interested parties to participate.

**Who should take part in the evaluation process?**
The evaluation process should be shared with residents, parents and children who will use the playground, as well as the playground designers and planners who are responsible for maintenance.

**What do we do with the results?**
After examining the existing situation, we choose which themes we'd like to focus on. We'll determine which types of play we'd like to enrich, physical conditions that could use improving, and unique qualities of the playground to strengthen. Not every aspect of the playground should be improved, only those that are important to the planners and the community.

**What if we can't apply all of the required changes in one playground?**
Small, accessible playgrounds located in places children already walk are highly beneficial for children aged 0-5 but can be difficult to find the space for. We recommend evaluating adjacent play spaces (not just urban playgrounds but also boulevards, streets, squares, school yards, etc.) to see how well they may provide a complementary solution to the playground that is being upgraded or constructed.

**Feedback**
A few months after completing upgrading or establishing a site, we recommend returning to the playground with the evaluation tool to learn what has changed. Does the space allow for free, spontaneous play, in a safe environment for children and their caretakers? Creating quality play spaces is a task that must include experimentation and learning and allow for adjustments over time. Feedback at the end of the process should be used to continue improving the original project as well as influence others.



# Third Phase Continued: Challenges in Managing Play in the City

Urban policy makers seeking to create high-quality play spaces face challenges in three key areas:

- **Overprotected children:** The desire to protect children from real and perceived dangers at all costs can limit their ability to play freely and prohibit them from reaping developmental advantages.
- **Lack of space and accessibility:** The mobility range of children under 5 is much less than that of adults. Allocating high-quality play spaces that are accessible to them can be a complex task in a crowded city.
- **Maintenance difficulties:** Play spaces that are challenging, creative, and allow for encounters with nature and free movement usually require more complex maintenance, which could be difficult for cities to sustain over time.

# Overprotected children

**The desire to protect children from real and perceived dangers at all costs can limit their ability to play freely and prohibit them from reaping developmental advantages.**

In Israel as in most of the Western world, there has been a trend in the last few decades of overprotecting children, which often limits their freedom to play.

Playgrounds in Israel are characterized by the trend of overprotection: In Europe, safety standards for playgrounds are only a guideline, but in Israel the same standards require approval by local authorities, who are also usually held solely responsible for any accidents that occur, instead of parents. Local authorities and playground designers are often afraid of possible legal action by parents and are deterred from creating challenging, original and natural play spaces.

**Overprotection of children is expressed in the reduction of play elements that allow for imagination, autonomy over physical surroundings and challenge:**

- Due to health concerns, many sandboxes have been removed from playgrounds and schools and replaced by unpleasant and unmalleable materials, such as synthetic grass or molded rubber surfaces.
- Unique, wooden climbing structures have been replaced by industrial ones
- Creative play structures designed by artists and architects are becoming rarer
- In certain cities, shade providing trees and branches have been removed for fear of collapse
-

**What can be done?**

**Including children** and parents in the design process may reduce trends of overprotection and strengthen support for unique playgrounds.

Community collaboration will not always reduce trends of overprotection. Allowing a random collection of residents to choose play facilities could lead to another opportunity for residents to express safety concerns and objections to playgrounds that encourage free play.

Therefore, it's important to include an in-depth discussion of the developmental benefits of play in the planning process with residents. The evaluation form from this document can be used as a reference so that professionals, teachers, and parents can join the conversation.

It is also worthwhile to present community members with examples of play equipment that allow for a high degree of challenge, creativity, freedom, and contact with nature.

Parents and children who take part in a successful collaborative process may develop feelings of ownership and belonging towards the new playground, and will try to influence others to understand its benefits.

**For additional reading:**

No Fear - Growing up in a risk averse society -Tim Gill

## Impact resistant surfaces: rubber or sand?

Falls are the most frequent cause of accidents on playgrounds. Impact resistant surfaces are a necessary component in any space that allows for challenging and safe play.

Effective impact resistant surfaces are divided into two categories: molded rubber surfaces, or fine materials such as sand or wood chips.

Although the absorbent quality of molded rubber surfaces and fine materials is similar, each has advantages and disadvantages in other areas. **Instead of choosing the rubber by default, consider the pros and cons of the use of each and choose accordingly.**

- **The quality of play**: Sand and other fine materials have a high quality of play: they promote sensory exploration and enable children to change their physical environment. Molded rubber surfaces have a low quality of play, they are best for activities such as biking or roller blading.
- **Maintenance and cost**: Sand requires more frequent maintenance. It needs to be replenished every few months to ensure that the depth is sufficient to absorb falls. However, the cost of these materials is low. Rubber surfaces require low maintenance, but the cost of setting up and replacing them is very high, consuming up to 40% of the cost of building or upgrading a playground.
- **Health**: Sand and other fine materials may contain bacteria but are familiar substances and easy to treat. In contrast, rubber surfaces are a relatively new product, and there is still insufficient research on the possible health effects from long term exposure.

**Additional reading**: Benefits of Sensory Play through Sand & Water / Goric

# Accessibility Challenges in Play Spaces

**Playground Accessibiltiy**

Playgrounds that are accessible to pedestrians encourage walking and positive exercise habits from an early age, as well as strengthen the child's sense of independence and familiarity with their surroundings. Planning large but remote playgrounds can reduce accessibility to those that have vehicles and travel time.

The guide for allocation of public spaces in Israel defines distances as from the space to the "doorway". Most accessible open spaces must be located 500-600 meters from the home, a 10-minute walk for the adult, but much longer when accounting for the walking pace of a child.

Apart from the difference in walking speed, each outing with a young child involves an investigation of the physical environment around them and response to stimuli, resulting in less direct travel from point A to B. A walking distance that is considered "close" for adults, up to 600 meters, is very long distance for young children walking with their parents.

International guides on children and play recommend that play spaces be located within 60 to 200 meters from the home.

**Lack of Play Spaces in High Rises**

In high-rise neighborhoods in Israel, exiting the building may require navigating under or above ground parking lots, making outings with small children complicated and reducing the number of trips to play spaces. Common spaces at the entrance to residential buildings are often the most accessible places for families with young children. However, most external common spaces are dedicated to parking, and inner courtyards or shared spaces in the building are designed are not intended for play, and even designed to prevent play, which is perceived as a disturbance.

**Everyday spaces that aren't suitable for play**

Playgrounds are perceived as a "destination" and are often separated from other urban uses. Many families do not have the time to make a special trip to the playground every day. Other public spaces that parents use every day, such as shops, services, streets and squares, are not usually suitable as play spaces.

**What can be done?**

- Planning new neighborhoods: Adopt an urban policy of placing accessible play spaces up to 200 meters away from each dwelling.
- In old neighborhoods: With resident cooperation, map possible play spaces that could be placed in open private areas (apartment building yards) in addition to streets, squares, and commercial centers.
- Shopping malls and courtyards can be used as new or temporary play areas.
- New high-rise construction: work with developers and building codes to allocate spaces to play in common areas

**For Additional Reading:**

**"הטמעת עקרונות תכנון ידידותי לפעוטות בישראל", הקליניקה האורבנית, 2018**

KaBOOM! Play Everywhere - Understanding Impact

# Challenges in Creating Accessible Playgrounds

## Case Study: Developmental delays in children from neighborhoods with a lack of play spaces

In a neighborhood in Jerusalem many developmental delays have been discovered during routine clinic follow-ups over the last two years. Residents of the neighborhood live in old housing structures, and many are from socially and economically disadvantaged communities and live in poverty. The large number of developmental delays prompted clinic staff to ask parents: Where do the children play in the afternoon?

They answered that there was no proper playground in the entire neighborhood, and the nearest parks were located far away and required crossing large streets to access them. Private open spaces between buildings were largely neglected and unsuitable for play.

Until recently, the municipality had not taken steps to improve public spaces in the neighborhood. Instead they focused on urban renovation projects that would add new apartment units in place of old buildings, however this plan has also not been realized. Following the parents' complaints, the municipality began work in 2018 to build a new playground in the neighborhood, which was planned in cooperation with parents and children.

# Challenges in Creating Accessible Playgrounds

## Safety implications of lack of access to playgrounds

Lack of access to safe play areas can have a very negative impact on safety. According to data from "B'terem", which promotes child safety, children in Arab towns are more than twice as likely to be injured in accidents as children in Jewish communities. The situation is particularly severe in the northern and southern districts.

Public spaces, especially playgrounds are very rare in Arab communities. Children often play in areas that are not designed to be played in and are exposed to traffic and other dangers.

Additional Reading:

היפגעות ילדים בישראל – דו"ח 'בטרם' לאומה" 2017

Ein Ibrahim neighborhood in Umm al-Fahm. The entire neighborhood has only one open public space. Photo: Mu'taz Agbaria CC-BY

# Challenges in Creating Accessible Playgrounds

## Case Study: A school yard converted into an open play area following a tragic accident

In April 2017 Omar and Muhammad Abu Koidar, cousins aged 10 and 6, were killed in an Arab-Bedouin village in A-Zarnog in the Negev by an explosion of an ammo they found while they were playing near their home.

In A-Zarnog which is an unrecognized village, there is no master plan, there are no open public spaces, and there are no playgrounds. The residents realized that the lack of safe public play spaces is one of the causes of this tragedy, and similar accidents in the past.

The local schoolyard, "Neveh Midbar" is the only public space in the community. Following the death of the two children, the school administration decided to open the school yard in the afternoon and allow the children of the village to play in it freely and safely.

An ecological pool in the yard of the Neveh Midbar school. The schoolyard is sometimes the only open public area in the community.

# Maintenance Challenges

The maintenance of play spaces is a complex challenge, and a balance between play quality and ease of maintenance.

High-quality play spaces that include all four types of play are more complex to maintain and require more frequent upkeep.

- Materials that can be touched, felt and modified, such as sand, soil, vegetation, and water, require constant cleaning, maintenance and expertise.
- Unique wooden and concrete installations require professional expertise and ongoing maintenance.
- Structures that enable imaginative play like hide and seek can become hiding places for adults and locations of unwanted activity.
- Maintenance of artistic structures created by artists and designers requires knowledge, caution, and a reserve of spare parts.

**On the other hand**, standard, industrial structures are more expensive to set up than unique structures made of natural materials. When upgrading or creating a new playground, it is advisable to examine whether funds from the initial cost of play structures can be directed towards maintenance of facilities that are less durable but of high quality. This change in the ratio between the cost of construction and the cost of maintenance can create better playgrounds and also raise money for public coffers.

Sanhadrin Park, Jerusalem

**What Can be Done?**

The municipality's maintenance officer should be involved in the planning stages of any unique playground. This person should prepare a future plan for maintenance, map the means and knowledge required for successful maintenance, and define the budget required for future years. This amount should be included in the construction budget.

In some areas, playground use is especially intense, making it difficult to maintain natural materials or vegetation. In these cases design materials that require less maintenance should be chosen, even at the expense of reducing play quality.

# Section Four: Strategies for Advancing Play

Despite trends in restricting free play, in recent years new approaches have been adopted in Israel and abroad that enhance the right of children to play.

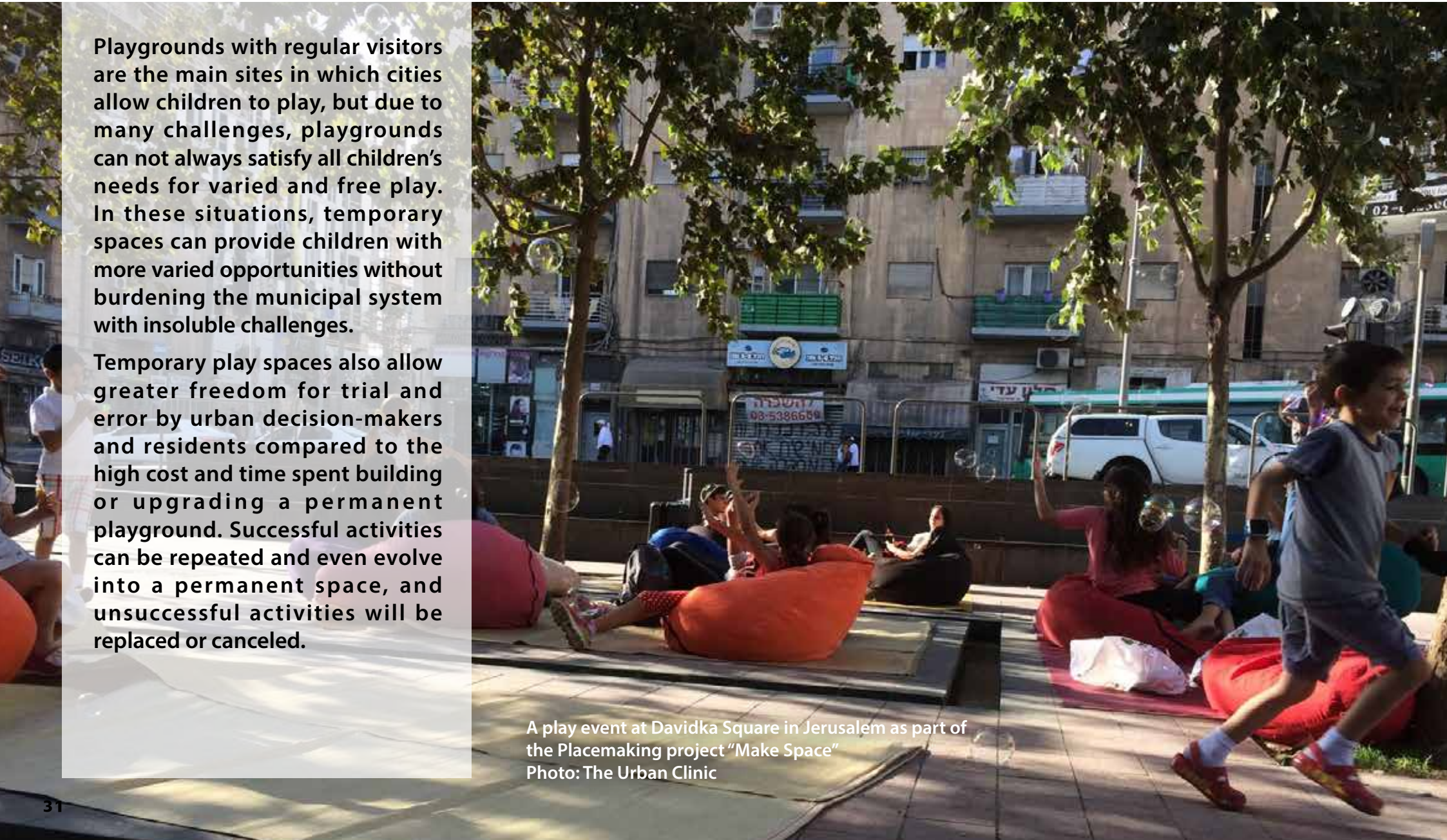
This section combines strategies relevant to Israeli cities as well as directions for thinking about how to adopt, translate and adapt to local contexts.

The strategies presented here are not a comprehensive list of solutions and ideas. This is a preliminary list of tools that may be particularly relevant to Israeli cities and stimulate the imagination to think about additional solutions.

# Temporary Play Spaces

Playgrounds with regular visitors are the main sites in which cities allow children to play, but due to many challenges, playgrounds can not always satisfy all children's needs for varied and free play. In these situations, temporary spaces can provide children with more varied opportunities without burdening the municipal system with insoluble challenges.

Temporary play spaces also allow greater freedom for trial and error by urban decision-makers and residents compared to the high cost and time spent building or upgrading a permanent playground. Successful activities can be repeated and even evolve into a permanent space, and unsuccessful activities will be replaced or canceled.



A play event at Davidka Square in Jerusalem as part of the Placemaking project "Make Space"
Photo: The Urban Clinic

# Temporary Play Spaces: Street Closures

"Happy City" approach in Bogota, Colombia, and has since been tried in many cities around the world.

Closing streets once a week or once a month gives young children independence in the streets, a place that is usually off limits, and the opportunity to play in ways that are normally not open to them.

Closing streets offers opportunities for free physical movement, a safe space for riding bikes or scooters, social play, and drawing with chalk on pavement.

In addition to play benefits, street closures strengthen local and community economics, and promote healthy habits in children and families.

Successful street closures can also lead to the decision to close the street more frequently or even permanently – converting it into a new community space.

For Additional Reading: Street Play, on the website Play England

Closing the streets of the city or neighborhood for community activity on weekends became popular following the success of the

**"No Cars Day" in British Columbia, Canada**

**Expected Challenges**

Residents and merchants may initially object to closing streets, as it may be perceived as another disruption by the municipality to routine life and business. It's recommended to start on a small scale and frequency.

# Temporary Play Spaces: Pop Up Playgrounds

Popups are a method for creating quick play events in public spaces such as squares and parks that do not require installations of play structures.

Temporary playgrounds contain more aspects that children can assemble and move themselves, allowing more free play and autonomy to change physical space.

**Examples:**

Folding sandbox: A sandbox with wooden cover that opens to create seats on both sides. When play is finished, the sandbox can be covered for reduced maintenance. For additional information: How to Build a Sandbox with a Folding Lid/ from KaBoom

Popup Playground: Squares and parks that lack play facilities can become temporary playgrounds for during certain days and hours.

Video: Popup Playscapes, Glasgow, Scotland:

youtu.be/f2D1ZTCLULo

For additional reading: Kit of Parks is a unique play kit that won the United States KaBoom competition. It's packed entirely in a bicycle-drawn cart, allowing children to build their own playground.

Kit of Parks in Boston

**Expected Challenges**

Public park budgets are primarily allocated for construction and maintenance and usually lack funds for activities. In order to create successful, sustainable play events municipal funds need to include budgets for activities, and municipal bodies need to create professional connections community workers and informal educators.

# Play in Private and Shared Spaces

In high-rise neighborhoods the use of private and open spaces should be used to tackle the challenge of lack of access to playgrounds in public parks. Some world cities have successfully implemented such policies.

The Singapore Case:

- Since the construction of public housing projects in Singapore ground-level floors have been used for children to play in
- After years of neglect, district municipalities took joint responsibility for the maintenance of ground floors and encouraged them to be reserved for community activities and family events
- With the transition to residential towers, playgrounds have been added to roofs of parking garages in addition to upper floors in the center of the building.
- High-rise housing directory for families with children: Growing up - Toronto, recommends:
- Use common spaces as play areas for children living in the building
- Use private spaces that are accessible to the public in areas that lack playgrounds to establish play spaces within a distance of 250 meters of residences

The playground facility for Hillock toddlers in the rooftop park of the Pinnacle @ Duxton residential towers project, Singapore. The roof garden is open and accessible to the general public.

And in Israel? Common areas in residential buildings in Israel should be better managed to provide quality play spaces for children.

- In recent years, the Carmiel municipalities have taken direct responsibility for the maintenance of open private spaces
- In Elad, developers were instructed to create small play structures were created at entrances to residential buildings as a condition for populating the building.
- Large lobby spaces in new residential towers are being transitioned from spaces designed with marble and chandeliers to spaces that allow for playing, especially for infants and toddlers who need to play close to home.

# Child-planned Playgrounds

One way to deal with the challenge of managing play spaces is to create a stronger connection between residents and public spaces and playgrounds.

Active public involvement in urban planning and management can have a positive impact on the feelings of the community, relations between the municipality and the residents, and residents' sense of ownership over public spaces. Involvement of users in planning can add vital knowledge to the planning process. With playgrounds the best way to achieve this goal is to involve the children themselves.

We can achieve higher-quality playgrounds that emphasize physical challenge and imagination. Greater community support can also reduce maintenance issues and ease overprotective parenting tendencies.

In Israel and abroad two main methods are used to involve children under 5 in the planning of playgrounds:

- **Public Participatory Planning**: KaBoom invited kindergarteners to draw the playgrounds they wanted and created a translation table that offered appropriate planning for each element in the drawings. For example, if children drew a beach, planners recommended sandboxes and water tables, and if they drew skyscrapers, planners recommended more climbing facilities and towers.

Children aged 5-6 in Umm al-Fahm draw their future playground with the Urban95 Peer Cities Network. Photo: The Urban Clinic

- **Participatory planning with artists and architects**: Beginning in the 1970s, artists such Bob Leathers invited children to draw and tell them about the playground they dreamed of, and later adapted the children's requests to their own interpretation. The final product was presented to the children before the playground was built. Examples of playgrounds designed by children in Israel include the Space Park in Modi'in and Gan HaShogeka in Jerusalem.

# Sand and Water Structures

Touching water and sand satisfies a significant need for children under 5 to touch different textures and change physical space.

However, open water is a safety risk, and artificial streams require a lot of space and maintenance.

A sand and water structure is a relatively convenient solution in terms of maintenance, and it doesn't need much space, and allows for high quality play

Children pump water by hand, and the water continues into a shallow stream or a system of water tables, finally reaching sand. The combination of a pump, a water system and a sand area gives children a variety of sensory experiences and opportunities to change their environment.

At Cambridge Common in Massachusetts, wooden construction blocks were added alongside the sand and water structure so that children can build in the sand and water.

The sand and water structures are especially popular on warm days when children use them for hours on end.

Examples from Israel of play areas with sand and water structures: Kiryat Sefer Park - Tel Aviv, Katzenelson Park - Jerusalem. Design by JI Studio

Water and sand structure in Cambridge Common, Massachusetts, U.S. Source

**מתקן החול והמים של Cambridge Common, מסצ'וסטס, ארה"ב. מקור**

**Expected Challenges**: The incorporation of natural elements into playgrounds may provoke parental resistance due to safety and health concerns. Sand and water structures should be planned together with parents, along with community workers, educators, health professionals, teachers, and child development specialists who can explain the importance of contact with tactile substances

# Summary

Play is a significant factor in shaping the development of children in the early years. The task of creating better cities for children ages 0-5 includes creating an urban space that allows for quality play.

The goal to create quality, accessible and safe space for play requires overcoming difficult challenges of overprotectiveness, accessibility restrictions, and maintenance difficulties.

Therefore, there is a need for decision-makers in cities that have practical tools and knowledge that support and encourage play.

The knowledge presented here is based on meetings of the Peer City Network, which is led by the Urban Clinic of the Hebrew University within the framework of Urban95 Israel and with support from he Bernard van Leer Foundation. This knowledge can serve as a toolbox for promoting play in the city for planners, professionals in early childhood education and child development, those in charge of municipal maintenance, architects and community workers.

This document seeks to challenge all stakeholders in the creation of urban public spaces to recognize the importance of play in its diversity and complexity, to assess the contribution of urban play spaces to better cities, and to adopt and develop new strategies to address the challenges of managing high-quality, accessible, safe play spaces.

This is also an invitation to further deepen our thoughts around promoting play in the city by developing local knowledge. The evaluation tools for play spaces presented here for the first time is an innovative and experimental tool that needs to be adapted to the complex and unique reality of each city. This toolbox contains a preliminary list that can be further added to with experiences and insights from current and future projects from Israel and abroad.

The ideas, insights and feedback that will emerge from daily the reality in cities are important for the further development of knowledge and improvement of play promotion policy in cities.

**Get in Touch**

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