JCDecaux

urbanistik
by JCDecaux

CITIES FOR KIDS:
A NEW STANDARD FOR URBAN DESIGN

● CHILDREN IN URBAN LIFE
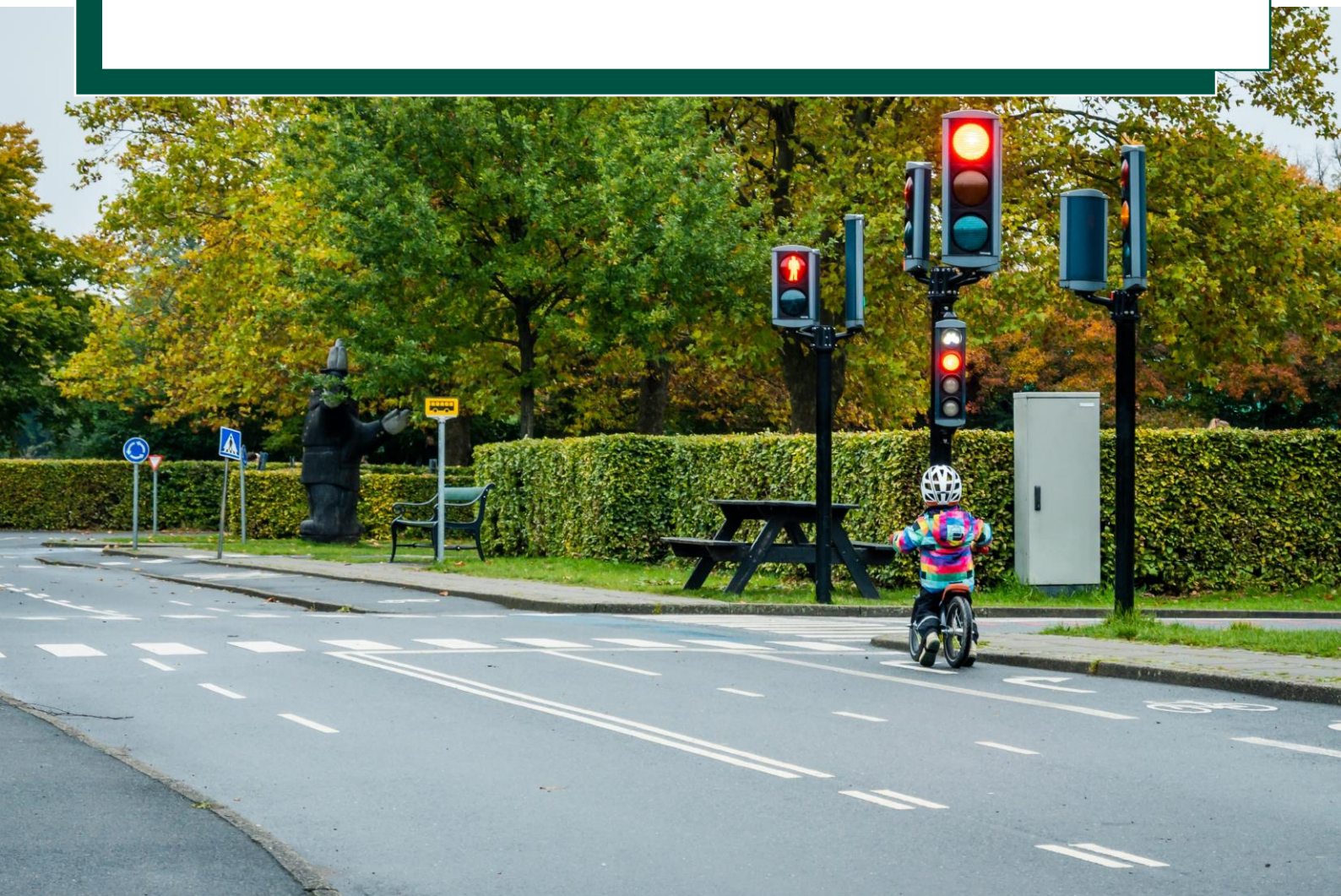
According to the International Convention on the Rights of Children, a child is a person under the age of 18. This part of the population is expected to grow in the coming years: in 2030, 60% of the urban population will be under 18. It is estimated that by 2050, 70% of the children of the world will be living in urban areas. This growth is explained by the general increase in the urban population, which will double by 2050, especially in low and middle-income countries, which account for 92% of this increase.

Despite the important representation of children in the urban population, **their presence in public space is diminishing**. This is particularly true in Europe and North America, where most of the studies on this topic are held.

In the UK, children have never spent so little time playing outside. In 2016, 75% of them spent less than an hour playing outside, according to a study reported by the Guardian which points out that even a prisoner in the UK spent more time outside.

In France, in 1960, children spent on average 3 to 4 hours outside their home, compared to 47 minutes in 2021 (29 minutes on their own).

> Despite the important representation of children in the urban population, **their presence in public space is diminishing**.

This note will shed light on the reasons that lead to the exclusion of children from public space.

It will then present some insights for city stakeholders to make public spaces safer, more accessible, and more attractive for children.

Nb : this note will provide an overview of common trends and structural variables but will not delve into the specific details of each country.

Children in keys statistics

Among the **4 billion people** living nowadays **in urban areas**, nearly **one-third are children**.
Source – UNICEF

In 2030,
60% of the **urban population** will be **under 18.**
Source – Word Economic Forum, 2021

In the UK**, 75% of children spent less than 1 hour playing outside,** per day.
Source – The Guardian, 2016

By 2050,
nearly **70% of children worldwide will live** in **urban areas.**
Source – UNICEF

CHILDREN IN URBAN LIFE

THE IMPORTANCE OF ACCESS TO URBAN ENVIRONMENTS

Interactions between children and their **urban environment** are **essential** for their development, their understanding of society, and their perception of the world around them.

This idea is developed by the Urban Planning Agency A'urba in its report "Children in public spaces". They reaffirm that children should have regular and autonomous access to outdoor spaces in their immediate environment to learn how to navigate and understand them.

The importance of this crucial connection to the public space in children's everyday life was particularly highlighted during the Covid-19 pandemic, with the closing of numerous spaces dedicated to children, such as playgrounds and parks.

For many **children, these spaces** represent **the only "refuge"** where **they can play and develop,** especially when their **homes do not have access to private or communal outdoor areas.**

GROWING AWARENESS

Indeed, some countries such as Finland, Germany, Norway, and Sweden have been successful in developing urban areas that allow children to move independently and safely from a young age. In Finland, most 7-year-old children can navigate public spaces alone or by bicycle.

By adapting urban planning to accommodate children it provides them with better access to public spaces and their various uses. Moreover, it contributes to the creation of cities that function better for everyone. Numerous experts emphasize the importance of designing cities that meet children's needs. **They believe that designing a city for its most vulnerable users ensures a more inclusive and accessible city for the rest of the inhabitants.**

"
If we can build a successful city for children, we will have a successful city for all people.
"

Enrique Peñalosa, former mayor of Bogotá, Colombia

Children playing chess in the street, Cuba © Adam Jones
adamjones.freeservers.com

UNEQUAL LIFE CONDITIONS IN URBAN AREAS

Children are not equal in accessing a public space that meets their needs

In 2020, it was estimated that one out of four city dwellers worldwide lived in a slum. It would represent over 300 million children. The living conditions of these disadvantaged populations could constitute a violation of children's rights.

They don't have access to the same services (transport, care, education) and generally no public space is dedicated to them.

As a reminder, according to UNICEF, children's rights are grouped into 3 categories**: survival and development rights**, giving children access to health and education resources necessary to their survival and full development; **protection rights**, guaranteeing protection against any abuse, neglect, exploitation, or cruelty**; participation rights**, freedom of speech and the right to participate in decision-making.

Public space planning plays a **significant role** in a **child's development** and in their integration within society.

It is essential that children can **grow up in safety** and be able to **take ownership of common spaces** or spaces specifically designed for them.

WHY ARE CHILDREN OFTEN EXCLUDED FROM PUBLIC SPACES?

To understand the reasons behind the exclusion of children from public spaces, it is necessary to examine **their expectations** regarding the urban environment. According to the report "Cities of Youth" from UN Habitat, **they align with those of all other users**: "safe and clean streets, access to green spaces, clean air, activities, the ability to move, the freedom to see their friends and a place where they feel at home". However, they point out specific needs that are often not yet adequately addressed by cities.

HOSTILE PUBLIC SPACE THAT DOES NOT INCLUDE CHILDREN'S VULNERABILITY

Children are particularly vulnerable users of public spaces. Physically more fragile, they are also considered less responsible compared to other users.

Thus, these characteristics make them more exposed to the various risks associated with public spaces (pollution, accidents, and violence).

Car traffic is the **main source of urban air pollution**. In France it accounted for 63% of nitrogen dioxide emissions in town, according to the 2019 report of UNICEF "Clean the air for children". However, children are **particularly vulnerable** to air pollution. Their immature organism and their higher breathing rates expose them to health issues directly linked to air pollution (asthma, allergies, depressive syndromes, eczema, diabetes, obesity). Living near high traffic areas is believed to cause 15% to 30% of the new asthma cases among children.

As urban green spaces are limited (60% of urban residents in Europe lack sufficient access to green spaces), children are unable to benefit from the improved air quality that comes with greening initiatives.

The traffic during peak hours in Bangkok,Thailand © Christian Haugen

In addition, **car traffic is the leading cause mortality for children over 5**, if we combine air pollution and road accidents.

Every year, more than 10 million children are injured in traffic accidents. Streets are primarily **designed to meet adults' needs** and often overlook the mobility requirements necessary to ensure children's safety.

Children living in low-income countries are 8 times more likely to be victims of road accidents than children living in high-income countries.

In France, 2 500 child pedestrians are victim of traffic accidents every year. This high accident rate creates a significant **sense of insecurity among parents**, who are more reluctant to allow their children to travel or play in public spaces.

According to the World Bank, **children are the most vulnerable population group** when it comes to urban violence.

This violence is particularly prevalent in disadvantaged neighborhoods with significant inequality. The extent of urban violence greatly influences parents' perception of danger in public spaces.

Clément Rivière, a sociology lecturer specializing in urban sociology and the role of children in the city at the University of Lille, explains that this is one of the main reasons for what he refers to as the "disappearance of children from public spaces". For parents, the city can be seen as a dangerous place for their children, leading them to restrict their children's independent outings. This creates a vicious circle: the fewer children out in public spaces, the less inclined parents are to let them go outside and explore on their own.

This can also lead to an overreliance on cars, which are considered a protective bubble, for daily transportation, according to the urban planning agency A-urba.

UNADAPTED PUBLIC SPACE FOR CHILDREN

The rise of private cars in the 20th century led urban planners to design cities around this mode of transportation. This has influenced the width of roadways, the allocation of space for parking, and consequently, the space available for other city users. In **Paris**, in 2016, **50% of public space was dedicated to automobiles**. Pedestrian access to public space is further limited as it encounters numerous obstacles along the way, such as narrow sidewalks, barriers, bollards, construction zones, obstacles, crowds, and more.

70% of elementary school **children in France travel to school by car every day,** often for **distances ranging from 500 meters to 2 kilometers.**
Source – Rue de l'Avenir, 2022

Moreover, city planners have rarely considered the specific physical characteristics of children in urban construction.

> " We should **move beyond designing our cities for the 30-yearold athletic person and think about the needs of our most vulnerable users**.
>
> *Gil (Guillermo) Peñalosa, urbanist, a specialist and advocate for inclusive cities*

Public spaces have been designed primarily for adults, and children are only tolerated under certain conditions, such as the presence of an adult supervisor, for instance.

In addition to the previously mentioned obstacles faced by pedestrians in general, children also encounter numerous visual obstacles, inadequate signage, and urban furniture that is too tall, hindering their independent and safe mobility. Furthermore, there is a **lack of studies** on how children perceive public space, highlighting **the neglect of this subject**.

This loss of mobility, however, has major negative effects on their well-being, health, and personal development. It particularly impacts their physical condition (80% of adolescents worldwide have insufficient physical activity) and acts as a cognitive barrier to the development of social skills and creativity.

PUBLIC SPACE THAT DOES NOT PROVIDE ACCESS TO SUITABLE PLAYGROUND AREAS

Playing is essential for children's development. As philosopher Thierry Paquot, author of the book "Pays de l'enfance" (2022), reminds us in 2016: "playing is inherent to being a child." It helps to develop numerous physical, social, emotional, cognitive, and creative skills. The street does not provide a sufficiently safe space for all children to play freely.

Specific play areas have been established in public spaces such as parks and playgrounds, but they do not fully meet children's needs.

An IPSOS survey conducted in 2020 among children and adolescents aged 8 to 16, asked: **" What improvements are needed in their city or village".**

" The improvement of play spaces" are prioritized for 51% of respondents (and 66% of 8 to 10-year-olds).

The urban planning agency A-urba stresses the importance of rethinking how these spaces are made available.

Today, these play areas often have a standardized design, use construction materials that may be potentially harmful to children (such as toxic plastics if ingested), are overly specialized for specific age ranges (e.g., a play area for 3–6-year-olds, another for 8–10-year-olds), and are often poorly located within the city (in neglected or noisy areas).

The urban playground developed by Studio Carve, Potgieterstraat Amsterdam, Netherlands © Studio Carve

RETHINKING THE CITY AT A CHILD'S EYE LEVEL

Faced with these challenges, experts in children's issues are calling for their systematic and forefront inclusion in the planning and design of cities, recognizing the benefits for their mental and physical development, as well as their health.

According to Francesco Tonucci, an Italian researcher in psychology and advocate for child-friendly cities, **"The designer of the new city will be the professional who has learned to interact with children, listen to them, understand them, work, and create with them."** He believes that starting by considering the needs of children in the city naturally leads to addressing the needs of other users as well, for whom the public space is also not adequately adapted (the elderly, women, individuals with specific needs, the most disadvantaged, etc.).

Building a city at child's eye level also involves **integrating their needs from the very beginning, going as far as involving them in the decision-making processes of urban development**.

Initiatives are emerging in this regard: guides are being developed to consider the challenges of a city from a child's perspective, such as the "Les yeux à 1m20" (Eyes at 1.20 meters) guide, developed by the canton of Basel-Stadt in Switzerland.

The Urban 95 approach developed by the Dutch foundation Bernard van Leer, a private foundation focusing on early childhood development, compiles inspiring actions in a blog and toolkit.

Both examples provide principles for creating a city that is adapted to children, targeting ages 6 to 9 for the "Les yeux à 1m20" guide and starting from age 3 for Urban95.

One of the main lessons learned from these initiatives is that children's needs must be considered at all levels, not only at the planning and development stages but also at the execution, management, maintenance, and monitoring of urban spaces ones.

In France, there is a growing awareness among cities regarding this issue, especially with the emergence of advisors and delegates for "child-friendly cities" (in cities such as Lille, Lyon, Rennes, Grenoble, etc.), the implementation of participatory budgets for children (such as those in Rennes and Lille), and the dissemination of labels such as "Child-Friendly City" established by UNICEF or networks like "Ville des Enfants" (City of Children) led by researcher Francesco Tonucci (as of 2023, Montpellier is the first French city to join this network).

To support children in reclaiming public space, **urban planning stakeholders can work towards improving three aspects of the city:**
• safety
• accessibility
• attractivity

MAKING PUBLIC SPACES SAFER AND HEALTHIER FOR CHILDREN (1/2)

As we have seen, the presence of cars in the city is the first obstacle to making public spaces safe and healthy.

Pedestrian city center of Oslo, Norway © Dougtone

Reduce the space for cars and promote pedestrian zones

Several cities are starting to implement measures to reduce the dominance of cars in urban areas.

The first measure is to **reduce the speed limit for vehicles to 30 km/h.** In addition to reducing the risk of road accidents, this lower speed limit makes alternative modes of transportation such as cycling, walking, and public transportation more attractive compared to using a car.

Some cities are going even further, like Oslo, Norway, which was named the European Green Capital in 2019. The municipality has taken measures to restrict car use in the city center by removing 700 parking spaces and creating pedestrian zones that are off-limits to all vehicles.

Mobile application Trafikkagenten, Norvège © Trafikkagenten
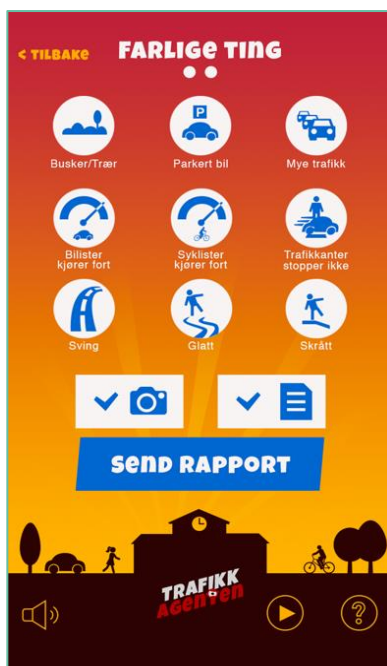
Develop cycling networks

Restricting or even preventing car usage should be accompanied by alternative measures to ensure that the mobility of children is not compromised.

Developing cycling networks, improving public transportation, and optimizing urban infrastructure for pedestrians can facilitate and secure access to alternative modes of transportation.

In Oslo, for example, in collaboration with the Norwegian Centre for Transport Research, the municipality has developed a mobile application called "Trafikkagenten" (Traffic Agent). This app allows children to express their opinions in a playful manner on the necessary infrastructure improvements to ensure safe walking, cycling, or using public transportation.

The goal is to collect data on travel patterns, identify anomalies or areas for improvement, and ultimately enhance traffic safety.

Promote the use of sustainable modes of transportation

To go further, some local authorities are implementing micro-incentives to reduce car usage and encourage children to use alternative modes of transportation.

One example is the city of London, where children under the age of 11 can travel for free on buses and trams.

To reduce the dominance of cars in the city, the municipality of Fortaleza in Brazil has deployed 50 children-sized bicycles with retractable training wheels in 5 stations across the city. This initiative, launched in July 2017, has been successful and expanded to 11 stations, with over 34,000 trips recorded since its launch.

The city of Pontevedra in Spain has adapted its public space to better integrate children into the urban environment. It has modified the road layout to facilitate walking for children, pedestrianized 70% of the city, and created 8,000 free parking spaces on the surroundings of the historic center.

These improvements have resulted in a 90% reduction in car traffic and a 65% decrease in air pollution.

Free-floating fleet of children's bicycles in Fortaleza, Brazil © Unimed Fortaleza

Green corridors, Medellín, Colombia © camaralucida1 – stock.adobe.com

Create green spaces in public areas

To make the city healthier and safer, the implementation of green spaces in public areas is a necessary complement with multiple benefits. The city of Medellín in Colombia has created 30 interconnected green corridors.

A study estimated that each of these corridors can absorb 160 tons of CO_2 per year during the early years of vegetation development (equivalent to the average annual emissions of 160 Colombians or 160 trips from Paris to New York by plane). Moreover, the presence of green spaces tends to reduce urban violence and traffic accidents.

In recent years, Paris has experimented with initiatives around schools to make the public space less polluted and more pleasant.

Tested after the COVID-19 lockdown, the concept of **"Rue aux Écoles"** involves redesigning the space around schools to prioritize active mobility, such as walking and cycling, while excluding cars.

These improvements effectively combat air pollution by eliminating cars and adding greenery to these streets. In Paris, this initiative has been implemented in 180 streets.

WHAT SOLUTIONS SHOULD URBAN PLANNERS CONSIDER?

Urban planners have a strong interest in developing strategies that combine actions to reduce the dominance of cars, promote active modes of transportation, and implement proactive policies for greening public spaces.

Redesign the city into smaller neighborhoods

To ensure that children and their caregivers can easily move around, it is important to **consider their limited mobility capacity**. New child-centered approaches recommend **rethinking cities into smaller neighborhoods** to promote travel through sustainable modes of transportation and allow children to explore nearby spaces, easily access essential services, and engage in play and social interactions. This concept aligns with the idea of the "15-minute city" developed by Carlos Moreno, where all essential services are within a 15-minute walking distance or accessible through sustainable mobility options. This concept is highlighted in the Urban 95 guide as one of its key recommendations.

The city of Tirana in Albania has implemented it to give children access to the city by reducing car traffic and promoting bicycle use. In furthering the concept of the child-integrated 15-minute city, the Bernard Van Leer Foundation, has developed a guide of best practices to assist cities in implementing this approach in their territories.

In the spirit of the 15-minute city, the city of Paris has experimented with opening schoolyards that have been revitalized and transformed into green spaces on Saturdays for the local community. The opening of these "oasis courtyards" makes secure, healthy, and attractive public spaces more accessible, aiming to improve the well-being of children.
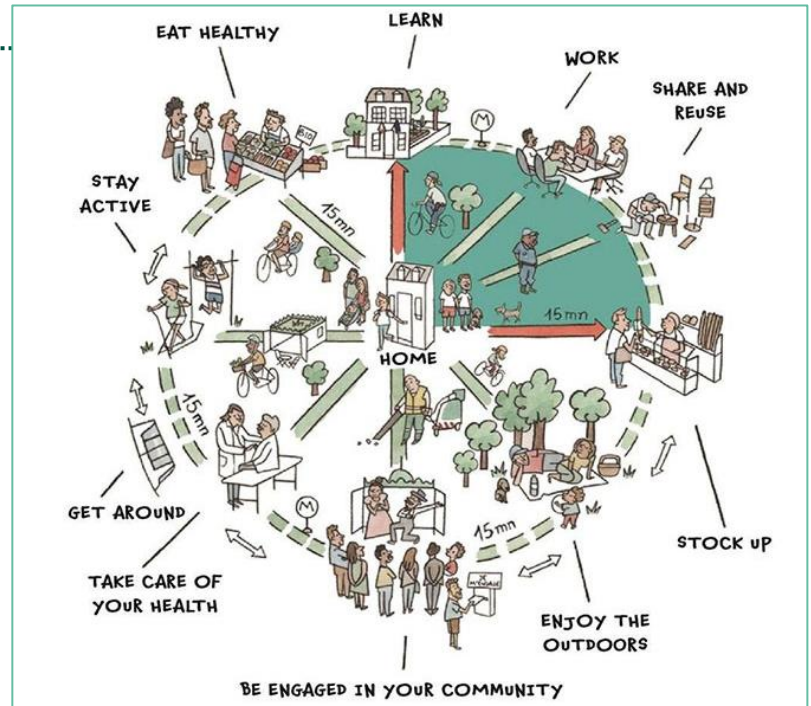

Diagram of the 15-minute city concept by Carlos Moreno
© Micaël Dessin / Paris en Commun

Provide a continuous pathway for pedestrians

Making public space more accessible to children goes beyond adapting it to accommodate sustainable modes of transportation. It also involves ensuring that the public space is **clear, legible, and offers a continuous pathway for pedestrians** that takes into account the specific needs of children, allowing them to navigate it more easily.

Additionally, since children are often accompanied on the streets (as pedestrians or in strollers, for example), they require more space. Therefore, sidewalks need to be widened, and obstacles along pedestrian routes should be minimized.

Numerous examples demonstrate the reappropriation of spaces initially dedicated to cars to increase the space available for pedestrians. For instance, the city of Fortaleza in Brazil nearly doubled the size of sidewalks around the Albert Sabin Children's Hospital.

As a result, the percentage of children walking on the road decreased from 50% to 0%, and the perception of safety when crossing the street increased from 2% to 88%.

Before/After of Hospital Street in Fortaleza, Brazil
© Global Designing Cities Initiative

MAKING PUBLIC SPACE MORE ACCESSIBLE TO CHILDREN (2/2)

In this context, **urban furniture** plays a sometimes ambivalent role, being both an obstacle on the sidewalk and a solution. Pedestrian ramps, raised platforms, seating areas, play elements, public transportation stops, trash bins effectively complement the landscape, pedestrian crossings, and cycling infrastructure.

> **Urban furniture and facilities** should allow **children to spend more time in public spaces:**
> public lighting, public restrooms, water fountains, Wi-Fi hotspots, and charging stations, **in a well-connected network throughout the territory**

However, it is essential to consider the size of children and their future perception and use of the furniture during the design phase.

The Design Street Cities Initiative, a collective of designers and urban planners, has created the guide "Designing Streets for Kids" that provides advice in this regard. For example, they suggest installing seats at a height of 50 cm to facilitate children's use. This guide builds upon their previous work, the "Design Street Cities Guide," which was developed based on the perspectives of experts from over 42 countries. It invites to redefine the role of streets in the city as multimodal spaces primarily intended for pedestrians, cyclists, and other users of active transportation modes.

Legible London signage panel, London, England © Maynard.

Promote inclusive signage

There is currently **a lack of signage specifically adapted for children in public spaces**, which would help them better navigate and find their way around the street by themselves. However, some examples of inclusive signage, such as Legible London, do consider the height of children and use recognizable symbols to improve information readability.

BUILD AN ATTRACTIVE PUBLIC SPACE FOR CHILDREN (1/3)

With a healthier, safer, and more child-friendly urban space, it is then crucial for city stakeholders to make it more attractive to children by **enhancing the play experience and making culture more accessible**. Play is an instinctive, voluntary, and spontaneous learning impulse for human beings, as well as a fundamental human right. Article 31 of the United Nations Convention on the Rights of the Child states that "children have the right to rest and leisure, to engage in play and recreational activities appropriate to their age."

Public space serves as an environment allowing children to develop, and its designers play a particularly important role in creating a city **that enables better and more frequent play opportunities.**

Natural park Speeldernis at Amsterdam, Netherland © De Havenloods

Encourage creativity and free play

Today, a new generation of spaces is emerging for the benefit of **creativity and free play.** The idea is not to confine children to specific activities, such as slides or swings, but to provide them **with a territory to explore using natural materials and settings**.

The city of Rotterdam in the Netherlands has created a natural playground park that allows children to play in an unstructured manner. Their slogan is telling: "We have almost no play equipment, but everything that nature has to offer".

Bring play closer to the street

Play spaces should not be limited to specific and protected areas. It is also important to **bring play closer to the streets**. In the case of streets specifically, they should now serve as **destinations** for all users, rather than just being passageways.

To connect play areas and foster community, certain projects aim to facilitate access from the street. This is the objective of the **"Parks Without Borders"** initiative in New York City, which strives to integrate park spaces with the surrounding neighborhoods by reducing barriers, and even removing them.

These areas visually extend the street, making them appear more accessible and welcoming.

Jackie Robinson Park, New-York, United States © Jackie Robinson Park

Temporary park, Kitchener, Canada © 8 80 Cities

Develop inclusive playgrounds

It is also interesting to develop inclusive play areas that bring together people from all social backgrounds and ages.

This is the approach supported by the organization 8 80 Cities, created by urbanist Gil Peñalosa, with their mission to "create cities for all." They have been involved in the implementation of a temporary park in the city of Kitchener to engage the entire community and foster connections through play.

Bring play directly into the streets

Play can also be brought directly to the streets.

The city of Bogota in Colombia has collaborated with the Bernard van Leer Foundation, using the concept of tactical urbanism to develop several temporary infrastructures, including a pop-up park that allows children to play in the street.
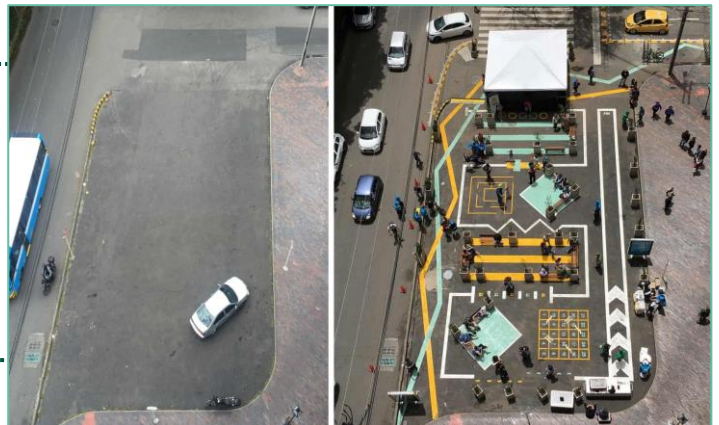
Before / After the creation of a pop-up park, Bogota, Colombia © PC-NACTO-GDCI

"Dans ma rue, on joue" in the city of Salaberry-de-Valleyfield, Canada © infosuroit.com

Utilize the space and play in it

To facilitate playing in the streets, it is possible to leave empty spaces that encourage children to use their creativity to take over the area and play. This is the concept promoted by the initiative "Dans ma rue, on joue !" (In My Street, We Play!).

Developed by the city of Beloeil in Canada, it allows residents to identify streets where playing on the road is authorized.

With a specific signage system, children can safely take over this space to play freely.

Bring play into the streets to enhance physical well-being

Active design also brings play right to the streets, benefiting physical fitness. The example of the "Mind the Step" project in Sao Paulo, Brazil, illustrates this approach. By renovating a staircase and adding playful elements like a slide along the steps, children were able to reclaim the space. Following this project, the staircase usage increased by 40%. To encourage physical activity, it is also possible to provide easy access to sports equipment.

This is what the startup Equip offers, by placing sports equipment (balls, cones, etc.) directly in public spaces thanks to connected lockers.

Mind the Step project at Sao Paulo, Brazil © Cidade Ativa

Make culture accessible to everyone

Article 31 of the United Nations Convention on the Rights of the Child also states that children have the right **to participate freely in cultural and artistic life**. The public space is a means of making culture accessible to all and meeting this need of children. Furthermore, by promoting culture in it, the public space becomes even more attractive to them.

This is the goal of the **Playful Learning Landscapes** (PLL) network, which aims to increase children's use of public space while enhancing their knowledge. PLL has implemented several projects in the city of Philadelphia, United States. The "Urban Thinkscape" project combines play with the exploration of language, color, and numbers around the figure of Martin Luther King Jr.

Bus stop redesigned with the Playful Learning Landscapes network in Philadelphia, United States © Sahar Coston-Hardy

Awaken musical senses

Urban furniture, which is spread throughout the public space, appears as an interesting means of providing access to culture on the street. The urban planning firm, The Urban Conga, for example, has developed urban furniture that incorporates musical instruments, allowing all users to awaken their musical senses. The concept of a 'book box' is also a simple way to provide access to culture through urban furniture in public spaces.

Musical bench, The Urban Conga, Fort Lauderdale, United States

Shared libraries, Anglet, France

A mobile museum to facilitate access to culture

Other services in public spaces provide access to culture and make it more attractive for children. MuMo has developed a mobile museum for children, promoting the dissemination of culture across various areas.

By animating the public space, this initiative encourages children to spend more time in public spaces.

The mooving museum by MuMo, Aurillac, France © Christian Stavel

KEY TAKEAWAYS

Children need public space **to build and develop themselves physically, mentally, and socially.**

Despite having similar needs to other users, children remain **unique users with specific requirements** for public space, which currently do not fully allow them to thrive.

It is urgent to work towards **giving children their rightful place in public space.**

By making cities healthier and safer, more accessible, and more attractive, children can reclaim public space.

It is essential to keep in mind that improving the city for children also **creates a more inclusive and suitable city for all.**

The stakeholders involved in urban development play a crucial role in this approach, by **restructuring and adapting public space in the first instance**, and subsequently providing innovative solutions **by involving children from the outset in their decision-making and creative processes.**

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