Special Issue 2.2024

Urban Inequalities

This Special Issue intended to wonder about how urban planning can contribute to reduce disparities due to the diversity of access to services, infrastructure and urban places, as well as the origin from a specific territorial area (center vs. periphery) and that could be accentuated by unforeseen global pandemics. Hence, contributions coming from scholars as well as from technicians have been collected around rethinking and redesigning territories and cities to support policy-makers in preventing and reducing socio-spatial inequalities.

TeMA
Journal of Land Use, Mobility and Environment

Special Issue 2.2024

Urban Inequalities

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Examples of good experiences for child-friendly cities. Comparison of sustainable practices in Italy and around the world

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Abstract
An approach to urban planning that focuses on children is a crucial element for creating inclusive, resilient and competitive cities in which to live, work and grow.
The image of a city that is increasingly inadequate to meet the needs of the youngest citizens emerges from the urban transformation that has characterized the last decades, oriented to the car, which endangers the safety and quality of the environment.
The contribution aims to provide a scientific framework on recent policy, practice and academic research on the topic of child-friendly cities: from a review of national and international best practices, directions and solutions are identified to create child-friendly cities, in line with Goals 11 of the United Nations 2030 Agenda for Sustainable Development.
The comparison between the different initiatives and experiments shows that children can be powerful agents in the design and implementation of better urban environments.

Keywords
Child-friendly cities; Inequalities; Governance; Urban planning; Best practices.

1. Introduction

An approach to urban planning that focuses on children is a crucial element for creating inclusive, resilient and competitive cities in which to live, work and grow.

Human activities that pollute the environment and alter the climate are creating serious dangers for the health and development of children. Climate change threatens to exacerbate other phenomena (for example, the Urban Heat Island) that undermine human health in cities, especially of more fragile subjects, such as the elderly and children (Sgambati, 2023). In fact, the planet is struggling with a climate emergency (Guida, 2023). Today's children will inherit a warmer world, with a future marked by devastating floods, prolonged droughts, scorching heat waves and wildfires.

In Europe, the pressing climate crisis has recorded a peak of weather events in recent years (Copernicus Climate Change Service (C3S), 2023). It is estimated that 90 percent of the global burden of diseases associated with climate change is borne by children under the age of 5 (Pacheco, 2020).

Vehicle traffic, residential heating, industrial manufacturing processes are just some of the causes of air pollution which represents another important source of exposure to risk factors for the health and well-being of children and adolescents. "Air pollution damages health during childhood and increases the risk of diseases later in life, yet children can do little to protect themselves or influence air quality policies" (EEA, 2023).

Children are particularly exposed and vulnerable subjects, and their future will be the result of choices and decisions of today's adult who is called to take concrete actions to respond more positively to the challenges and lead us towards more child-friendly cities.

A sustainable future for all can only be achieved through conscious and responsible planning. The meeting between sustainability and urbanization has given rise to the concept of "sustainable city", a theme of great interest in various fields, from research to education, from the business world to public policies (D'Amico A., 2023).

The image of a city that is increasingly inadequate to meet the needs of the youngest citizens emerges from the urban transformation that has characterized the last decades, oriented to mainly meet the needs of an adult who commutes by car. In this dimension of a city car-oriented, the car becomes the main protagonist occupying public spaces, endangering people's safety and air quality; the urban environment is "perceived as dangerous, and children lose the opportunity to move around their city on their own to have experiences such as exploration, adventure, and play necessary for their proper cognitive, emotional, and social development" (Tonucci, n.d.). The way a city takes care of its children, providing them with opportunities for outdoor play, independent mobility and contact with nature, reflects the quality of life of all its inhabitants and is a significant indicator of the overall well-being of the city (ARUP, 2017).

Academic literature has explored the concepts of child-friendly environments and cities for many years. Some key factors taken into consideration by researchers to evaluate environmental child friendliness are safety, available green space, variety of activity settings, independent mobility possibilities, active socialization or "neighbourliness", and integration of children into decision-making processes (Freeman & Tranter, 2011; Haider, 2007; McAllister, 2008; Broberg et al., 2013). In addition to these, other criteria also emerge as important qualities for a child-friendly urban environment such as health, intergenerational spaces, resilient and smart city.

The United Nations General Assembly on November 20, 1959 approved the Declaration of the Rights of the Child. From that moment, children's rights were fully on the agenda of member states. For the 30th anniversary celebration, on November 20, 1989, in New York, the UN General Assembly approved the International Convention on the Rights of the Child. Since then, all over the world, November 20 has been celebrated as the World Children's DayDay.

Italy did its part with Law No. 176 of May 27, 1991, by which the Italian Parliament ratified and gave enforceability to the 1989 Convention on the Rights of the Child (CRC). Law 285/1997, Provisions for the

Promotion of Rights and Opportunities for Children and Adolescents, recognizes the need in urban areas to implement child-friendly actions, in particular: "interventions that facilitate the use of time and urban and natural spaces, remove obstacles in mobility, expand the use of environmental, cultural, social and sports goods and services".

A deeper knowledge of the relationship between the built environment and the quality of life of children in cities can play an important role in shaping present and future urban development, which responds to the actual needs of the little ones.

This contribution identifies, from a review of best practices, actions and interventions to ensure a safe, sustainable and welcoming environment free of socio-spatial inequalities for all, primarily children (from 0 to 18 years). The objective of the contribution is to identify the factors that characterize a child-friendly city and to compare solutions and interventions implemented in different Countries, as an integral part of policies governing urban and territorial transformations.

The paper is structured as follows. Section 2 presents the scientific framework on the topic of child-friendly cities, illustrating some strategies that can be implemented to overcome socio-spatial inequalities. Section 3 presents a comparison between virtuous experiences in Italy and in the world categorizing good practices with respect to principles of Goal 11 of the United Nations 2030 Agenda. Section 4 provides concluding remarks.

2. Child-friendly cities to overcome socio-spatial inequalities: scientific framework

Promoting policies for child-friendly cities is not only an act of care for the youngest children, but an investment in the well-being of the whole community (ARUP, 2017). Indeed, at the heart of the debate about the future of cities, a crucial question is how to make them healthy, sustainable and prosperous for all: the answer may lie in making them child-friendly.

The research literature offers an abundance of definitions concerning Child-Friendly Cities (CFC).

According to UNICEF, "a CFC is one which implements the UN Convention on the Rights of the Child (CRC) at the local level" (UNICEF, n.d.), following the general principles of the Convention:

- Non-discrimination;
- Best interests of the child;
- The inherent right to life, survival and development;
- Respect for the views of the child.

A rights-based approach that makes it possible to assess whether responsible actors, including governments, are fulfilling their duty to respect and protect children's rights, is proposed by Mekonen (2010) with the 'Three P's Approach, which measures the governments' child-friendliness with respect to the following "sets of children's rights: protection, provision and participation".

Broberg et al. (2013) define child friendliness by two central criteria: children's possibilities for independent mobility and their opportunities to actualize environmental affordances. In line with these principles, the "Cities Alive: Designing for urban childhoods" report (ARUP, 2017) states that two concepts are considered fundamental to understanding and exploring a more child-friendly approach to cities: "everyday freedoms" and "infrastructures for children". By promoting the ability to play and socialize with high levels of independent mobility, in association with infrastructure for children, such as a network of spaces, streets and nature, the salient characteristics of a CFC are created. In a similar vein, the Gehl Institute (Gehl, 2018) defines 10 principles that support "happy, healthy families in a playful, friendly city" to inspire planners, designers, public health advocates, and community members to create "spaces to grow".

"Independent mobility, affordances, participation, and safety" were the major concerns of numerous studies relating the concept of child-friendliness to the physical environment (Han & Kim, 2018).

The CFCI Guidance note (UNICEF, 2022) defined a CFC as a city, town, municipality or any system of local governance:

– that is committed to fulfilling child rights as articulated in the CRC;

– where the voices, needs and priorities of children are an integral part of decisions making processes influencing their lives.

The analysis by Cordero-Vinueza et al. (2023) reveals a three-dimensional perspective of the concept of child-friendly cities, divided into: rights, physical environment and governance. Children's rights represent the initial call to action, and then a system of governance directs their implementation. Finally, the physical environment represents the context in which these actions materialize and generate their effects.

In recent years there has been intense policy, practice and academic research activity on the topic of child-friendly cities. Examples include international initiatives such as Urban95 which reimagines cities from 95 cm, the average height of a healthy 3 year old (Vincelot, 2019); the 8 80 Cities initiative is driven by the simple but powerful idea that if everything we do in our cities is great for an 8 year old and an 80 year old, then it will be better for all people (8 80 Cities, 2017); the nonprofit KABOOM joins communities as partners to play spaces designed by children, guaranteeing all the equal opportunities for play, ending inequalities (for example with the iPlay MIAMI Streets project, dead-end streets in Miami communities were transformed into children's play spaces) (KAABOOM, 2018).

In 2018, the Global Designing Cities Initiative (GDCI) launched the Streets for Kids program, which aims to help improve the lives of children in cities; the initiative was followed by the publication of the guidance "Designing Streets for Kids" that captures international best practices, strategies, programs, and policies that cities around the world have used to design spaces that enable children of all ages and abilities to utilize cities streets.

Alongside research works that focus on the quality of urban environments and features to make it child-friendly (parks and natural elements, playgrounds, safe and clean streets, etc.), many studies highlight the importance of including children in the processes of decision-making.

According to Ataol et al. (2019) by embracing better participatory planning approaches with children (instead of for), their visibility and needs can be enhanced. Brown et al. (2019) state that involving children in public space design and co-creation activities is constructive for the community and for children who gain an awareness that they are part of something bigger, guiding some decisions.

The Child Friendly Cities Initiative (CFCI) was launched by UNICEF and UN-Habitat in 1996 to act on the resolutions passed during the second UN Conference on Human Settlements (Habitat II), which declared that the well-being of children is the ultimate indicator of a healthy habitat, a democratic society and good governance. It is an international network, active in more than 40 countries, that brings together government and other stakeholders (including children themselves) who want to make their cities and communities more child-friendly.

If a local government decides to engage in partnership with UNICEF through the CFCI, appoints a management and coordination structure; conducts a situation analysis to identify existing child-friendly mechanisms and gaps; drafts an Action Plan with goals and actions that meet the needs of children and reflect the strategic priorities of the local government to be followed by an implementation and evaluation phase.

Participatory planning with girls and children is one of the proposals of the international project "The City of Girls and Boys" which originated in Fano, Italy, in 1991 and is joined by many cities around the world.

"The City of Girls and Boys" project proposes that mayors, politicians, administrators, as well as educators (parents and teachers) ask for help and advice from children, who take an active role in the process of change, participating concretely in the governance and design of the city and reappropriating urban space.

The project has two main axes: promoting children's participation in city government through the direct involvement of children in the implementation of real interventions and initiatives in the city and by establishing

a council made up of children; restoring children's autonomy of movement in public spaces, primarily on the home-school route (Tonucci et al., 2019).

By listening to children's voices, decisions made take into account different needs and perspectives, and this allows for a change in the parameters of city government, with children active players who contribute to making the city better for everyone.

3. Virtuous experiences in Italy and in the world

This section presents concrete ideas from cities around the world that have successfully implemented actions to make their cities more child-friendly.

The selection of case studies was conducted carefully, considering their relevance and linkage to Goal 11 of the UN Agenda 2030: "*Sustainable cities and communities. Make cities and human settlements inclusive, safe, resilient and sustainable*". With the aim of fostering a comprehensive understanding of urban development approaches for a child-friendly city, and facilitating a meaningful comparison between international experiences and strategies implemented in Italy, the case studies are organized into four distinct categories that align with the principles of Goal 11 (Fig.1):

- *Inclusive;*
- *Safe;*
- *Resilient;*
- *Sustainable.*
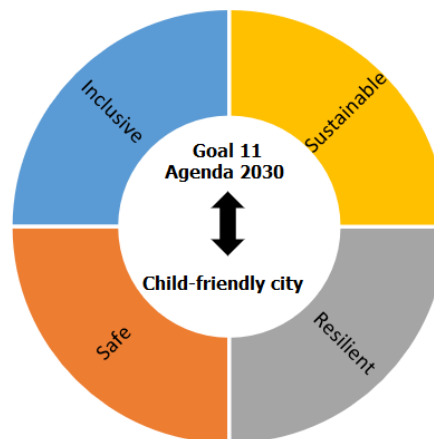
Fig.1 Thematic sections of case study categorization

The comparative analysis makes it possible to identify different approaches to achieving sustainable and at the same time child-friendly urban development. The sample of best planning practices was selected by consulting several international report or databases (ARUP, 2017; BYCS & Clean Cities, 2022; Urban Nature Atlas, 2021).The main criteria that guided the selection of best practices were:

- relevance and alignment with at least one of the four categories identified from Goal 11 principles (Inclusive, Safe, Resilient, Sustainable);
- effectiveness in implementing appropriate measures that meet the needs and requirements of children (e.g. inclusion, safety, accessibility,etc.), even if not exclusively designed for this population category;
- adaptability of the intervention, replicable in different contexts and scales;
- optimisation of existing resources to reduce environmental impact and promote alternative and more sustainable management of public spaces.

Further selection criteria were the number and distribution of case studies to conduct meaningful and efficient research. In fact, for the comparative analysis it is expected that each thematic section will include at least 2

best practices (including one Italian) and that the international case studies will come from different countries. This has led to a final list of case studies with adequate geographical representativeness taking into account different perspectives, contexts and policies.

The application of the selection criteria to the 47 case studies collected has resulted in the final list of best practices being analysed in this contribution and listed below:

- Bogotá (Colombia), "Plaza 80", Public Space Recovery Programme;
- Hackney, London (UK), School Street Programme;
- New York (USA), Schoolyard Transformation Programme, PlaNYC 2030;
- Qian'an (CHINA), "The Sanlihe River Ecological Corridor";
- Milan (Italy), "Piazza Dergano", Open Squares Programme;
- Bologna (Italy), DUTP "Bologna city 30";
- Savona (Italy), Pilot intervention of transformation of "Callandrone" elementary school courtyard;
- Bari (Italy), Transformation of abandoned area into "Japigia Park".

An extremely varied panorama of cities emerges, involving interventions of variable scale (from the building to the district/neighborhood), united by a strong interest and commitment to the construction of cities suitable for children, with attention to environmental issues, which play a decisive role in the governance of urban and territorial transformations (Tab.1).

Case study	City (Country)	City population	Project start year (Implementation status)	Thematic section align with "*Goal 11*"
Plaza 80	Bogotá (Colombia)	8,034,649	2016 (completed in 2016)	*Inclusive*
Piazza Dergano	Milan (Italy)	1,417,597	2018 (completed in 2022)	*Inclusive*
School Street Programme	Hackney, London (UK)	202,824	2015 (in progress)	*Safe*
Bologna city 30	Bologna (Italy)	389,200	2023 (in progress)	*Safe*
Schoolyard Transformation Programme	New York (USA)	8,804,190	2013 (in progress)	*Resilient*
Transformation of "Callandrone" elementary school courtyard	Savona (Italy)	58,512	2023 (in progress)	*Resilient*
The Sanlihe River Ecological Corridor	Qian'an (China)	775,813	2007 (completed in 2010)	*Sustainable*
Japigia Park	Bari (Italy)	316,212	2013 (completed in 2018)	*Sustainable*

Tab.1 Overview of the selected case studies

3.1 Inclusive

Inclusive cities for children are characterized by being attractive places for families, with spaces and services that put children's needs and rights at the center, fostering their healthy development and autonomy. Inclusive spaces ensure that children have the freedom to move around the city safely, play outdoors, explore and discover independently, while having places and opportunities to express their creativity, socialize and engage with other children.

Child-friendly cities do not simply create dedicated play spaces in designated places such as parks and schoolyards but integrate inclusive spaces for children into the urban fabric itself, for example by taking advantage of disused public spaces or removing them from spaces dedicated exclusively to cars.

The urban dynamics of the contemporary city have led to the transformation of public space into a more complex component of its traditional form such as streets, parks and squares. Public space is a key asset in the formulation of liveable cities, the ability of local governments to identify changes in urban patterns and city dynamics has enabled the implementation of strategies to improve the quality of life for citizens. Improved public and civic infrastructure, together with an understanding of the street as a multimodal space, are the engines that drive cultural vitality by promoting sustainability, safety and strengthening the economy through successful pedestrian networks and public spaces.

Active consultation and implementation of inclusive urban policies for children are the focus of the intervention called "Plaza 80" in Bogotá (Colombia) (Fig.2a). Starting in 2016, the Municipal Administration of the city of Bogotá, supported by Bloomberg Associates, the National Association of City Transportation Officials (NACTO) and citizens' associations undertook a "Public Space Recovery Programme" to provide the community with inclusive recreational areas to share, walk, talk and move around safely. The priority zone for children, Plaza 80, is one of the interventions being piloted by the city of Bogotá around a childcare centre in Ciudad Bolívar, where interventions including traffic calming, orientation, play-streets, pop-up parks, improved crossings and pavements will be tested. The lessons learnt from the pilot project will be integrated into a Master Plan with the local government's intention to implement a "Public Space Recovery Programme".

Public spaces, such as streets and squares, are important places where people not only move, but also gather, spend time, interact, and cultivate sociability. Therefore, the ongoing design and maintenance of these spaces are critical (Gehl, 2018).

Temporary projects, or pilot projects, act as catalysts for change, sparking innovative ideas and testing concrete solutions in the urban context, and allow for the collection of valuable data and feedback for future large-scale implementations. This is what is being tried in Italy with Milan's Public Space Program, "Open Squares". Between 2018 and 2023, more than 28,000 m² of public spaces have been made walkable and more livable for children and the elderly (Municipality of Milan, 2023). The first pilot intervention saw the transformation of "Piazza Dergano" (Fig.2b), a historic square in the center of Milan's neighborhood of the same name, which in 2018, from an asphalt space occupied only by parked cars was redesigned to accommodate seating, ping pong tables, new plants and bicycle racks. The success of this first experimental and temporary intervention was followed by the final transformation of the square (in 2022, as part of the Milan's "Piano Quartieri") and the project was extended to other areas of the city, with the support of the Municipality and AMAT (Agency Mobility Environment Territory) in collaboration with Bloomberg Associates, NACTO and GDCI.

(a)   (b)

Fig.2 View from (a) Plaza 80 in Bogotá (Colombia) and (b) Piazza Dergano in Milano (Italy)

These projects have transformed former parking areas into more livable, healthier, car-free spaces where children can play and people can stop and socialize. In the cities there are more and more widespread interventions for the enhancement and redevelopment of existing spaces, which also encourage forms of movement with low environmental impact (e.g. pedestrian and cycle paths) (Pellicelli et al., 2022; D'Amico, 2023). The urban space is valued for the benefit of all, becomes a place of aggregation and recreation, returning it to public life for the benefit of the environment and the quality of life in the city.

3.2 Safe

The spaces and neighbourhoods in which children interact and live represent places where they establish networks of social relationships and play a crucial role in children's well-being; in physical terms, children should like and feel safe in urban spaces (Gencer & Karagöz, 2017).

Children constitute a vulnerable group that is particularly exposed to harmful effects of air pollutants; road safety is also of critical concern, with road traffic injury the leading cause of death for children and young adults aged 5–29 years (WHO, 2018a) and Sedentarisation is another challenge, with the 81% of adolescents aged 11-17 years globally are insufficiently physically active (WHO, 2018b).

The built environment should offer children the space to seek out adventure and set their own limits, within reason, while ensuring a general level of safety (Gehl, 2018).

In an effort to improve the health of the community and increase the comfort of children and their families, cities in recent years have been trying to implement a range of interventions to reduce vehicle use, pollution, improve safety and encourage walking and cycling. These include the *School Street*, a road closure strategy to limit motorised traffic, in which pedestrian and bicycle zones are created in front of schools, at least during school drop-off and pick-up times. First implemented in Bolzano, Italy, in 1989, and later embraced in Belgium, Austria, and the Netherlands in the early 2000s. *School Streets* are emerging as a simple and low-cost intervention, which have been rapidly adopted in recent years, especially in European cities, as a response to important issues in the governance of urban transformations, including "road safety, health and air quality crises, and the movement towards child-friendly cities" (BYCS & Clean Cities, 2022).

School streets are emerging as a strategy to encourage active modes of travel to school, making children's journeys safer and smoother; they also reduce the volume of car traffic on roads near and in front of schools, and consequently reduce phenomena such as congestion and air pollution.

Thanks to strong and widespread support from local authorities and the community, Hackney's School Streets Programme (Fig.3a), in London is one of the world's leading School Streets Programmes; started in 2015, between 2017 and 2021 it has implemented over 40 School Streets across the borough (BYCS & Clean Cities, 2022).

In Italy, there is no lack of similar initiatives and after the pioneering implementation in Bolzano, in 1989, *School streets* are also proposed interventions in instruments such as the SUMP (Sustainable Urban Mobility Plan) and in DUTP (Detailed Urban Traffic Plan) of many Municipalities. An example of this is the DUTP "Bologna city 30" launched in 2023 by the city of Bologna (Fig.3b), which becomes the first major city in Italy to impose 30 km/h for urban streets (it covers about 70% of the streets of the entire town) (Municipality of Bologna, 2023). The plan also provides for the encouragement of a series of initiatives that concern children more closely, such as five "Pedestrian School Squares" and areas "kiss&ride". The "Bologna City 30" plan promotes a transformation of the way the city is used, modifying public space, starting with improvement measures aimed at 'vulnerable' road users that aim to promote greater liveability, free play and road safety by encouraging greater autonomy of the youngest and youngest, especially near schools.

Beyond the immediate benefits of improved real safety, the increased perception of safety that people experience, makes cities more welcoming and pleasant to live in. The positive and measurable effects of initiatives already implemented in various urban contexts show that school streets, and other similar initiatives

(e.g., speed limits, clear demarcation of pavements/sidewalks), can provide concrete and tangible solutions to some of the most pressing urban challenges facing cities and children.

(a)   (b)

Fig.3 View from (a) Hackney School Street in London (UK) and (b) Bologna (Italy)

3.3 Resilient

In the face of urbanisation and climate change, to which children are particularly vulnerable, there is a need to create environments that foster a positive urban development and experience, and that are also better able to cope with urban challenges in the future. The effects of urbanisation, such as deforestation, land occupation and diminishing biodiversity, undermine the right of children to develop and maintain meaningful contact with nature.

Courtyards, parks, streets and squares intentionally designed to be shared and child-friendly not only foster social interaction and improve bonds between individuals, but also strengthen the climate resilience of the city system.

Many cities around the world have been implementing a number of interventions for some time now to contribute to the overall resilience of urban centres and try to address some of the challenges of the coming decades: mitigating urban heat islands by adding and expanding green infrastructure; reducing the impact of stormwater through the de-paving of areas covered by asphalt or concrete; installing bicycle lanes and racks to promote sustainable mobility and improving air quality and citizen wellbeing.

In 2013, the City of New York and The Trust for Public Land, as part of the PlaNYC 2030 initiative, planned to transform 40 old asphalt schoolyards (Fig.4a) into vibrant playgrounds and community parks that include green infrastructure to capture rainwater when it rains, thus relieving pressure on the city's sewer system and protect its waterways from pollution (ARUP, 2017). The city of New York has shown how the use and redevelopment of existing spaces in the city, such as school zones, helps to improve the resilience of urban infrastructure.

Interventions at the urban scale and child-friendly design can effectively combine to improve urban resilience and sustainability. The city of Savona, Italy (Fig.4b), has recently identified a series of interventions within the territorial strategy for the ERDF (European Regional Development Fund) 2021-2027 dedicated to mitigating climate change risks and increasing biodiversity (Municipality of Savona, 2023). Among the priority pilot interventions foreseen in the strategy is the transformation of the outdoor spaces of the "Callandrone" primary school, which responds to a wide range of needs: redeveloping a space dedicated to children to improve the quality of their school time; introducing green spaces and natural elements to encourage biodiversity; apply new solutions for sustainable urban drainage to improve the response to extreme weather events; integrate school spaces with the rest of the city. A pilot project destined to become a model for other urban areas.

These interventions, in addition to providing parks and gardens, with opportunities for play and sports for children, allows to sensitize communities to climate change and makes them more aware of natural processes and the need to take care of the environment.

(a)   (b)

Fig.4 (a) Part of a New York schoolyard renovation and (b) view from Savona (Italy)

3.4 Sustainable

The sustainability planning of the neighborhood as the first public place for children's experiences is a unique opportunity to ensure all children the right to live a peaceful childhood, without inequality, where all children live the same opportunities for growth and learning.

The creation of more unstructured, more natural spaces allows the benefits of natural ecosystems to be integrated into children's daily lives and lends itself to the creative and adventurous play that is essential for children's development. For example, mini forests are affecting many communities and colonizing urban spaces around the world; often, the application of these interventions involves the very young (through school projects) with the main objective Eco-Pedagogical to educate them on the cause of the environment, increasing their connection with nature (Fratini, 2023).

Sustainable communities also develop through spaces that facilitate intergenerational interaction, which foster exchange, for example with a mix of active and contemplative public spaces (ARUP, 2017) and heterogeneous play environments that enable fun, healthy, and brain-stimulating interactions between adults and their children (Gehl, 2018).

Inclusive playgrounds, equipped green areas, spaces for sports and cultural activities are just some examples of how neighborhoods can be designed to meet the needs of children and meet the needs of sustainability. For example, children's play areas should promote more informal, adventurous, interactive and unstructured play (Scheiber & Zucaro, 2023). This means going beyond traditional games with fixed structures and embracing natural elements, creative challenges and spaces that stimulate the encounter and active participation of the community.

A connection between children and nature during their daily commute between home and school is what has happened in Qian'an, China, with the "Sanlihe River Ecological Corridor" project (Fig.5a). A redevelopment project that involved a 13 km stretch of the river Sanlihe, heavily polluted and not sustainable. The planned ecological corridor connects schools with residential areas through a network of walkways, paths and cycle paths; the project involved the replacement of concrete slabs and the reclamation of the river by the installation of wetlands, trees and plants that have helped create a sustainable and biodiversity-rich landscape for the entire community (ARUP, 2017).

An Italian project focused on the creation of new green areas on previously abandoned areas is the "Japigia Park" project, in the city of Bari (Fig.5b), that links the necessity of housing, open spaces, urban sustainability. The main goal of the intervention was to provide the city and the specific high density neighborhood with a green space which improves the quality of life of the residents, being at the same time a recreational space and an area of socialization. The presence of hedges, trees, vertical gardens, playground and seating ensures the liveability of the area, while providing important ecosystem services for the mitigation of urban pollution and adaptation to climate change, proving to all intents and purposes a sustainable urban project (Urban Nature Atlas, 2021).
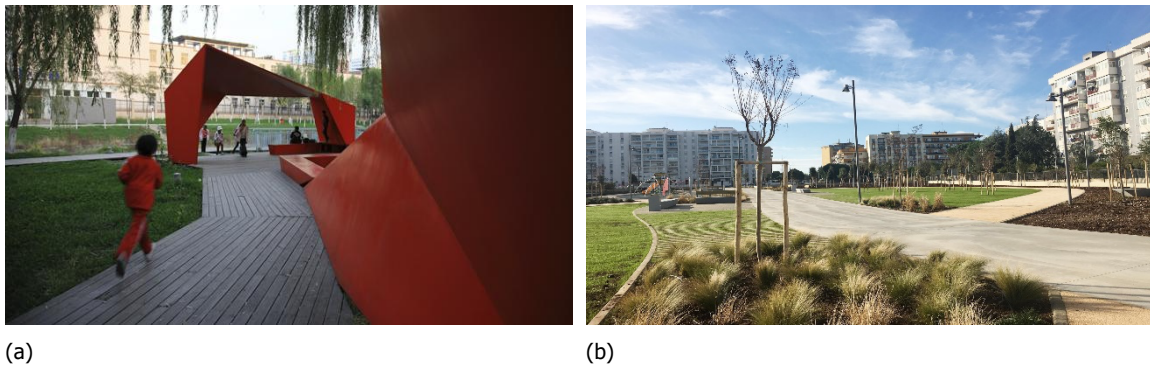
(a)   (b)

Fig.5 View from (a) Sanlihe River Ecological Corridor in Hackney School Street in Qian'an (China) and (b) Japigia Park in Bari (Italy)

4.   Conclusion

This contribution identifies, from a review of national and international best practices, directions and solutions for achieving child-friendly cities that help counter socio-spatial inequalities and promote the well-being of this population group, in line with Goals 11 of the United Nations 2030 Agenda for Sustainable Development.

The case studies discussed in this contribution help to build a better understanding and alignment of sustainable urban planning with children's needs and perspectives.

The comparison between the different initiatives and experiments, which concerned different geographical and social contexts, shows that children can be powerful agents in the design and implementation of better urban environments.

A child-friendly approach supports the multifunctionality of space and the reuse of existing infrastructure such as schoolyards, community centers, abandoned areas and parking lots. This can lead to a saving of public space, which is taken away for example from cars and enhanced, for the well-being of the community and the improvement of the quality of the environment.

Child-friendly initiatives and projects can play a key role in the process of managing urban transformations and reorganizing urban spaces, helping to create more inclusive and liveable cities for future generations. The sustainable use of resources is one of the principles to be pursued and cannot be achieved without rethinking methods and tools to govern cities and change lifestyles (Gargiulo & Zucaro, 2023).Good local governance, paying attention to the needs of children in the urban environment, associated with the active participation of children in the choices that affect the urban spaces in which they move and live, contribute to achieving better cities.

Although the study has successfully demonstrated the link between the principles outlined in Objective 11 of the 2030 UN Agenda and child-friendly cities, it has some limitations in terms of sample size of observed case studies and lack of quantitative analysis. However, the comparison between the national and international interventions collected in this study highlights that a child-friendly approach makes it possible to address issues in a more holistic and integrated way, bringing benefits and positive results for all.

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Image Sources

Fig.1: Author's elaboration;

Fig.2: a) https://elperiodicodechia.com/nacion/bogota/bogota-recupera-espacio-publico/; b) https://earth.google.com;

Fig.3: a) https://drive.google.com/file/d/1UVVmMxxgFBlKSgE-h9sZn3s4sP7wKWmC/view;

   b) https://www.comune.bologna.it/notizie/citta-30;

Fig.4: a) https://www.nytimes.com/2015/06/25/nyregion/a-new-playground-in-the-bronx-soaks-up-the-citys-problematic-

   storm-water.html;

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Fig.5: a) https://www.asla.org/2013awards/062.html; b) https://una.city/nbs/bari/japigia-park.

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