

Unwalling Childhood

School as a place
to encounter
nature

Foreword by Lea Tiriba

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Foreword

It's an honor to be asked to write a foreword for this book that addresses a topic that is of great importance to the health of children and our planet, yet hardly receives the attention it deserves from society, or even from academia or policy makers.

What will be the fate of a planet whose children and youth grow up removed from nature, without an opportunity to develop a love for and clear understanding of the existential processes of birth, growth and death of life on Earth? To stem the tide of alienation from each other and the world, we need meaningful personal interactions with nature that will encourage us to care for our planet. Having a sense of belonging to the natural world will foster the environmental stewardship that will contribute to the planet's sustainability.

Children love open spaces, watching animals and their offspring, playing with water – that precious element that brings forth life. They fight for their right to play with nature. Who could fail to notice how passionate children are about nature? As their educators, to what extent do we facilitate or impede their ability to interact with the universe that affects them?

Brazil's 1988 Constitution states that children are citizens with rights. That means that listening to their desires is a matter of respect for the democratic principle. We are upholding the Constitutional Rights of children by allowing them to interact with the natural world and engage in nature play as part of their school day, and thus reducing the time they spend inside the walls of a classroom. Unfortunately, many children spend many hours of their school

day cooped up inside a classroom since enrollment in school is mandatory for Brazilian children starting at the age of four.

It is certainly true that in recent years, especially in early childhood education, cultural processes have gained importance and opened up new avenues for multiple approaches to cultural interaction. Our current curriculum guidelines promote interactivity and play as important elements in the teaching process. However, these guidelines say nothing about interactions with nature; only human interactions are valued. That means that in the educational context, nature is merely seen as a setting for children's play, rather than a place that is fundamental for human development. And as students advance through middle and higher education, this detachment from nature becomes more and more profound.

Based on the idea that the universe is merely a backdrop for human actions, the anthropological concept of nature regards it as a mere object of analysis and rational interpretation, subject to the whims of the human species. This explains why children usually spend only a very short amount of time outdoors, and often as a reward that depends exclusively on the whim of teachers or school staff. This further justifies the limited use of the space surrounding schools or even the complete lack of windows so there is no visual connection to the outside world.

As a result, today's schools reproduce the radical premise that people are separate from nature. This plays into the hand of the interests of a capitalist society, where a small group of people enjoys all the rights and impose themselves as the owners of goods that should belong to all of us. This small group of people treats other humans and non-humans as mere objects of curiosity, to be studied, dominated or controlled, and used as resources or labor for industrial production.

Children are cultural beings who develop in connection with other beings, humans and non-humans. According to Spinoza, they are modes of expression of nature intertwined with other modes that seek a good encounter because they are reciprocally leveraged through a state of connection. As children crave for proximity, they express their appetite and awareness of the need for what makes them more potent. Spinoza's philosophy thus leads us to think that the desire to put our feet in the mud is evidence that our species is just one among other species, all endowed with a shared substance that is life. The elements of the natural world do not represent filth, disease, or danger, but are places of freedom, creativity, autonomy, and solidarity. Proximity to soil, water, and sand is not a favor or a concession, but a prerequisite for a healthy existence. Nature play is a human right because it corresponds to our need for integrity. This right expresses itself by accessing the universe that extends beyond the school walls and boundaries.

Going beyond school walls increases children's joy because it allows them to talk to others, engage in social movements, and interact with the environment, which includes elements around the school and their community or city. Those elements are more than just objects of a separate study by the researcher in an abstract investigative landscape; instead, these become a living space that can be deciphered by other human dimensions than just rationality. And our joy is even greater when the unwalling is achieved as a public policy, involving families through a participatory process in which the school communities play a leading role. There is no predefined model, set architectural design, or identical playground equipment that can be replicated. The practices for teacher training combine theoretical appropriation, proximity to nature, and sensory, creative and artistic activities.

As an educator I am pleased to see that this publication will guide teachers, school leaders, and families in helping children reclaim the school playgrounds and public spaces that belong to them! While in the classroom children are walled-in because of implemented control mechanisms that value individualistic and competitive behaviors and values, in outdoor schoolyards children will be able to exercise the democracy that a sustainable society requires. Schoolyards connect children with nature, in a setting where they are free to move around, infused by joy that inspires them to play, create, and build a revolution! This is the type of children the world needs!

March, 2018

Lea Tiriba

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Introduction

Although a recent project for the Alana Institute, the Children and Nature program has been a longtime dream and desire of the organization's founder and president, Ana Lucia Villela. The idea for this initiative sprang from her own childhood memories, and from her dream that all children should have access to a backyard and green space, the way she did when growing up.

The decision to invest in a program that aims to create favorable conditions for children to grow up in contact with nature was based on the perception that children have become increasingly “walled-in” and institutionalized. These conditions have denied them the time and freedom to interact with wider spaces and nature.

We recognize that free play is intrinsic to childhood; it is an essential language through which the child discovers and understands the world. When children play surrounded by nature, their whole body is engaged in the activity, making the experience particularly meaningful. At the same time, nature serves as a comfortable setting, a refuge for children, providing opportunities for solitude and introspection.

Our society is marked by dramatic inequalities, and many children grow up in urban areas where even their most urgent basic needs are not met. In the light of this scenario, many may not understand the need for a program to connect children with nature. However, we believe that connecting children with nature validates the interdependence between humans and the natural world. It also contributes to building another worldview grounded on respect for all forms of life. Nature offers the possibility to



Drama class in an outdoor theater.

transform oppressing realities, to rethink the city, and to offer alternatives to digital screens. To achieve this, we have to take action, ranging from encouraging small everyday decisions that enable children to have more contact with nature to advocating for public policies that will create and provide more access to urban green spaces.

A study about the relationship between children and nature in urban Brazil, conducted by VOX Survey and commissioned by Alana,

revealed that schools, especially public schools, are instrumental in stimulating a child's interaction with nature. Unlike other environments, schools are our last remaining hope for preserving children's experiences with the natural world, which is a fundamental aspect of childhood.

In 2015, Alana learned about an incredible program that had been implemented over an eight-year period in preschools in the city of Novo Hamburgo, in the southern Brazilian state of Rio Grande do Sul. Various studies and a careful reflection on the city's educational practices resulted in a greater awareness of the importance of unwalling children and giving schoolyards a whole new meaning.

In most of our schools, education still mainly focuses on cognitive development. In Novo Hamburgo, the municipal network of preschools (33 schools and a team of dedicated professionals) worked together with the parents, the community and the children, to build a proposal based on the concept that active and empowered children require daily contact with nature.

After learning about the initiative in Novo Hamburgo, Alana also learned about numerous other valuable teaching experiences in public and private schools, in Brazil and abroad, that prioritize free play and learning from and in nature. While those schools are often seen as privileged due to their facilities, resources and staff, they illustrate that even with few means it is possible to move toddlers, children and youth out of their classrooms and into the world beyond the school's walls.

Although the focus of this publication is on schoolyards, we will also consider other spaces outside of school premises as these also have a significant influence on children and form an important part of children's "living spaces". We will call those in-

side-outside places *learning landscapes**. We have also chosen to explain this movement within the context of its relationship to holistic education, which considers the individual in all dimensions and expands the opportunities for socialization and development. We have also reviewed legislation that supports using nature in teaching practices and on school grounds.

And finally, inspired by *Building a National Movement for Green Schoolyards in Every Community*¹ published by Children & Nature Network in 2016, we present some ideas and research on the benefits of school-based nature play and learning.

Our main reason for writing this publication is our desire to share good news and best practices that will help the reader to improve the way school grounds are designed and used, so that more children will experience an “unwalled” childhood. While we know that each school or school district has its own way of doing things, we believe that sharing successful systems and pathways will help us build a strong network of unwalled places for children.

This book is an invitation to join us in this worldwide movement that advocates for wider, greener and more natural spaces for children, and to provide children of all ages with the time and freedom to enjoy more nature at school.

Laís Fleury

Children and Nature Program Coordinator

* According to the term coined by Ana Beatriz Goulart de Faria in Brazil. Ministry of Education. Department of Basic Education. *Caderno Territórios Educativos para Educação Integral*. Brasília: MEC/SEB, 2012.



Ágora Elementary and Middle School, in Cotia (São Paulo), where numerous activities take place outdoors.

Movements

Space and time for childhood

The school as a place where all children can play and learn in nature

The current separation between children and nature is an important crisis of our time. The natural world is no longer perceived as an essential element of childhood. This is particularly true in an urban context, regardless of the size of the city. The health consequences of this crisis are significant for children. Over the last few decades, we have seen an increase in: obesity, hyperactivity, attention deficit, emotional unbalance, reduced motor skills—such as a lack of balance, agility and physical ability—and nearsightedness.



Richard Louv, a journalist and the author of *Last Child in the Woods*², coined the term “nature deficit disorder” to describe this phenomenon that affects childhood. It is not a medical term, but an expression that effectively calls attention to an emerging problem. Other researchers in this field have conducted studies that identified related problems. Many studies point to the realization that educators, parents and specialists have known about for decades: contact with nature during childhood, particularly during informal nature play and unstructured out-of-doors activities, promotes creativity, autonomy, self-reliance, decision-making skills and problem-solving skills. These skills are essential for child development and also confer benefits associated with developing an understanding of ethics and fostering a capacity for wonder, empathy, humbleness and a sense of belonging*.

* For more information about the benefits of interaction with nature during childhood and an extensive bibliography, see: CHAWLA, L. Benefits of Nature Contact for Children. *Journal of Planning Literature*, v.30, n.4, p.433-452, 2015. For more information on research and studies on the topic of children and nature, we recommend the online libraries of Alana's Children and Nature program (www.criancaenatureza.org.br/biblioteca/) and the Children & Nature Network (www.childrenandnature.org/research-library/).

The symptoms and effects of human detachment from nature are part of a systemic problem that causes a profound impact on the quality of life for all generations, but especially children and seniors. There are many inter-related contributing factors that add complexity to this issue, including: health, urban and social planning, mobility, use of electronic gadgets, social and economic development, violence, nature conservation and education. However, the picture varies according to social class and each child's personal circumstances; the impacts are more significant and prevalent in more densely-populated and socially-vulnerable communities and cities with precarious conditions for a healthy, wholesome childhood.

With increasing urbanization across Brazil and around the world, we must reflect on the lifestyle and development models we have adopted in our cities. In 1991, Brazil's urban population was 75%³ of the total population, which increased to 84.7% by 2015⁴. As urbanization increases, we have to consider how the modern, urban world embraces new generations. We must consider that there have been several achievements and advances that benefit children in our country, such as increasing levels of education, a reduction in infant mortality rates and a decrease in child labor⁵. But we also have to take into account the effects of urbanization, such as detachment from nature, shrinking nature areas, lack of public security and the poor quality of public spaces. Together, these latest trends are gradually pushing urban populations, both young and old, into enclosed environments, which takes a heavy toll on a child's healthy development.

With that in mind, a large number of experts, educators and parents around the world and in Brazil have committed themselves to understanding what ails children, and what causes them anxiety, stress and unhappiness, accompanied by profound learning

and social difficulties at school. A consistent set of scientific evidence, mostly from outside of Brazil, points to the disconnect between children and nature as one of the major factors. On the other hand, nature-rich urban environments—including schoolyards with playgrounds and green spaces—improve physical and mental health, cognitive skills, creativity, and social bonding.

When it comes to nature, children have clearly indicated that these spaces provide the capacity to accommodate their need for space, physical activity and interaction, while also allowing for their need



The school is a place to socialize and recognize oneself.

for introspection and solitude. We must be aware of this evidence and that it points to the need for changes in areas such as health, family, education and urban planning.

We believe that one of the areas in this complex panorama that must change is the physical learning space in schools and in cities, and the way all of us, children and adults, use these spaces. That is the reason why we joined a global movement that underlines the importance of greening school grounds and reshaping how these are used.

According to architect Mayumi Souza Lima, *“Schools are the only universal space in cities where we can regain control of a public and popular space – the realm of play activities – that has been lost to children and youth in the capitalist and industrial city”*⁶. For many families who are unable to provide for their child’s essential needs, schools are an ally. School is also the only place where children can enjoy typical childhood experiences, regardless of what else is going on in their lives. In many cases, children spend up to ten hours a day in their school environment.

Several studies^{7,32,33,40} indicate that children have little contact with nature at school. The most obvious reason is that some schools simply do not have natural environments or spaces to promote outdoor learning and play. In fact, as schoolyards are thought to be of little educational value or are deemed less important than buildings or other facilities, many schools have reduced their schoolyards or simply neglect them. A deeper analysis of the educational process, however, calls for reflection and a reassessment of school practices, organization, routine and time use. We have to recognize the value of play and learning from and in nature—central elements of a fully alive education process.

Grupo Ambiente-Educação (GAE) is a study group focused on learning landscapes, associated with the graduate program at the Faculty of Architecture and Urbanism at the Rio de Janeiro Federal University (PROARQ/FAU/UFRJ). They advocate that school grounds should be seen as elements of systems that provide “free spaces” in cities⁸. “Free spaces” in cities are voids or other areas without buildings such as: backyards, private or public gardens, squares, parks, streets, avenues, rivers, forests, marshes or bare urban areas⁹.

“The complexity and diversity of functions and categories in the system of free urban spaces justify the interest in understanding the role and the importance of schoolyards as places for recreation and socialization. These spaces can play an important role in the educational process and fulfill the functions once exercised by neighborhood squares and parks. However, this requires that we acknowledge the influence exerted by our surroundings and its socio-spatial characteristics”¹⁰.

So far, schoolyards have endured as places for socialization, exchanges, and interaction, as well as experimentation and exploration. They are refuges for exchanging knowledge, habits, customs, rituals and games that are part of childhood culture, which has been transmitted among peers for generations. **“For teachers the central focus of the educational process is the classroom, however for students it is the schoolyard. That is where they practice and exercise their primary motive for being in school: socialization”¹⁰.**

Playing in the sandbox, having a picnic in the shade of some trees, hanging from a tree branch, delighting in bird song, admiring the beauty of flowers, getting wet in the rain, growing a vegetable garden, making a sculpture from a dead branch and discovering

how life develops are important experiences that help children comprehend life's beauty and mystery. At the same time, nature's systemic quality teaches children the concepts of complexity and interdependence, fundamental values that will guide their actions in the world, shape their social interactions, and allow them to reflect on society's anthropocentric world view. If these moments do not take place in school or in other learning landscapes, it is quite possible that most children will not experience these at all. This will greatly impoverish children's repertoire of experiences that allow them to immerse themselves in the world and build meaningful understanding.

Brazil covers a large swath of the continent and boasts a very rich and generous environmental and climatic diversity, along with cultural traditions and ancestral heritages that are anchored in nature. We have found inspiration in our rich history of pioneer experiences that connect education and nature. A great example are the *parques infantis* (children's playgrounds) created by the Department of Culture of the city of São Paulo in the 1930s, under the direction of Mário de Andrade. These playgrounds were built in several working-class neighborhoods to complement pre- and middle school education during non-school hours¹¹. Another example was the Escola de Aplicação ao Ar Livre Dom Pedro II, an experimental education institution. Located in a public park (currently Parque da Água Branca, in São Paulo), its methodology centered around physical education and nature¹². And last but not least, the pioneering and inspiring experiences of *Escola Parque* ("school park") in Salvador and Centro Educacional Carneiro Ribeiro which, among Anísio Teixeira's many accomplishments, became renowned in Brazil and in several countries.

Those past initiatives and many other current endeavors (some of which are presented in Chapter 4, "Inspirations", and many others

listed in the platform *A Criança e o Espaço*¹³ (Child and Space)) show that with creativity, courage, and public policies that foster and regulate innovation and inclusion, we can overcome difficulties and “unwall childhood”. As Lea Tiriba¹⁴ inspiring tells us: “It is essential to invest in the effort to unwall and to conquer the spaces that lie beyond the school walls. **Not only classrooms, but all areas can be a learning landscape:** gardens, farmland, cattle ranches, creeks, beaches, dunes, open fields; all that surrounds the school: the neighborhood, the city with its landmarks – historical, geographical or picturesque, the mountains, the ocean... Besides constituting spaces in which children can play freely and relax, those places may also be explored as environments for storytelling, drawing and painting, and learning spaces where we can pursue all kinds of knowledge.”



▶ Alana's Children and Nature program has produced several videos that can be used as valuable resources to accompany this publication, such as **Greening children's learning** (available at <http://bit.ly/2JGdxHI>).



Who dropped the oranges on the ground?

At A Bela Adormecida, a public preschool in the city of Novo Hamburgo, where children only had a small space to experience nature, teachers found a way to resolve their lack of space. They created a partnership with a neighboring church that is surrounded by a beautiful garden lined with orange and tangerine trees. The school started to use the space at the church to hold picnics, read and listen to stories, and let the school's young children play outdoors, interacting with nature.



School is also a place where you can pick your own fruit.



The children's first visits coincided with the end of the fruit season. The oranges had not yet been picked and many overripe oranges had fallen off the trees. The children were outraged, almost appalled, and asked:

"Why are these oranges on the ground? Who did this?"

For adults, especially those whose childhood was marked by climbing trees and picking fruit, the answer is obvious. "The oranges fell off because they were too ripe."

However, if we look at the scene more deeply and move beyond the endearing naivete we see the children's denouncement of how great their loss has been. Now that the fruit had fallen on the ground, they lost the opportunity to taste the tangy oranges, to scratch their skin as they climb trees to pick the fruit, or to smell the sweet perfume of the flowers, had they arrived sooner. They missed the flowers turning into fruit, and the fruit growing and ripening. They missed out on tasting the oranges to decide if they are ready to be picked. They lost the opportunity to share the excess harvest with family and friends. They had lost the right to interact with nature and to fully experience what it means to relate to and interact with this world, which is part of a beautiful process of self-development.

A network of experiences in greening school grounds: International School Grounds Alliance – ISGA*



The non-profit International School Grounds Alliance (ISGA) is a global network of organizations dedicated to enriching children's learning and play by improving the way school grounds are designed, used and managed. The organization is based on the concept that the well-being of children and the ecological diversity of their learning environments are intrinsically linked.

The principles that the ISGA follows to better shape children's experiences and landscapes are:

- Nurture students' physical, social and emotional development and well-being
- Provide powerful opportunities for hands-on learning
- Reflect and embrace local ecological, social and cultural context
- Embrace risk-taking as an essential component of learning and child development
- Design public and open school grounds that are accessible to their communities

* Alana's Children and Nature program is a member of ISGA's Leadership Council.



When exploring and trying new things, children discover their strength and skills.

Most of the Alliance's work focuses on initiatives that encourage schools to remove pavement from school grounds and add vegetation. The goal is to make school grounds more diverse, so they can better promote children's mental and physical well-being and development. School ground landscapes with more vegetation offer a better "habitat" for children, including more "private" hide-aways that allow them to engage their imaginations.

ISGA proposes that school grounds contain natural features that favor experiential learning, free play, rest and contemplation, interactions with peers, and freedom.



The short video **Nature as a space of comfort** (available at <http://bit.ly/2IumWCn>) features testimonials by experts associated with ISGA that express some of the Alliance's values and beliefs.



Holistic education, learning landscapes and community well-being

Connecting spaces and expanding access to nature

What are school grounds, really? What do they tell us about the educational values behind each school? How can we associate outdoor learning spaces with students' holistic education? What types of interaction are possible between the school and the city and between schools and the city's green spaces?



This simple structure added another elevation level to the playground, challenging children to try new activities, while also providing a quiet corner. It was built with family support.

The design of school grounds mirrors the education philosophy, values and culture that form the core of each school's educational approach. Many schools still regard the classroom as the primary setting for learning, where intellectual engagement is the only way to build knowledge. The schoolyard is merely seen as space for recreation or for passing through, not as a place for learning and social interaction. Some philosophers, like Michel Foucault, identify substantial similarities between the design of schools and prisons, mental health facilities and hospitals, where physical structures and functions are marked by forms of control and punishment¹⁵. Moreover, schools are historically associated with the task of preparing children and youth for the labor market, for business—or to “prevent idleness”—and to build acceptance of and adherence to the *status quo*.

Architect Beatriz Goulart states that *“the history of our school spaces is linked to the history of Brazilian education. For each historic moment is reflected in the corresponding educational trend and architectural model. The fact is that no matter how much the shapes of buildings have changed, their respective curriculum, organizational charts and flow charts have remained the same for almost 200 years: the educational program continues to focus on the classroom and on the individual adult-teacher relationship.”*¹⁶ The prevailing educational philosophy is that students can only learn when they sit still; movement, activity and learning don't go together. This results in a set of routines aimed at disciplining children's bodies to improve their intellectual education, which makes cognitive development more important than experiences in the knowledge building process of children.

To consider the holistic development of children from the perspective of “multiple intelligences”—which include social, emotional, intellectual and spiritual ways of learning—we must replace

the traditionally “detached” educational framework used by formal and informal education, which proceeds as if the student-child were not also a son- or a daughter-child, or a citizen-child. From the perspective of multiple intelligences, other types of knowledge and other dimensions such as art, ethics, citizenship, sensitivity and nature become as important as scientific knowledge. The term *holistic education* is understood here as a broader concept than what is usually associated in Brazil with full-time school program or activities offered during and after regular school hours. The concept of holistic education promotes the holistic development of the student, by offering diverse activities, both in a school and non-school setting.

Goulart states that “to ensure *quality basic education*, the core educational principles must connect the children’s and youth’s learning processes with their real life experiences and their community. To provide this level of quality, the curriculum should also include practices, skills, customs, beliefs and values that are grounded on daily life experiences. By combining real life experiences with academic knowledge, we can develop the curriculum we need to teach children how to live in today’s society. A holistic education relies not only on the school, but also on its surroundings, the community, the neighborhood, and the whole city”¹⁶.

“It takes a village to raise a child,” teaches an African proverb. All spaces, times, people and opportunities that are part of that village. But to be a village, the school must restructure its schedule, physical spaces and relationships. To implement holistic education, the school needs to rethink the learning spaces that are available to students, whether they are in preschool, elementary school, middle school or high school. Holistic education requires spaces that extend beyond the classroom, to leverage new opportunities for students that go beyond the traditional uses of the

school's building and grounds. **Holistic education goes beyond the idea that learning is confined to school spaces, particularly the classroom, and values each and every space, indoors or outdoors, as well as off-campus.** Holistic education considers all types of spaces to be potential learning landscapes and therefore capable of embracing teaching and learning.

Learning landscapes are therefore composed of learning communities that include community members, both inside and outside the school. The concept of a learning community assumes an inter-sectoral dialogue focused around *“a project that aims to educate the learning community (formed by children, youth and adults), based on a diagnosis of not only the community's weaknesses, but, above all, its strengths to overcome those weaknesses”*¹⁷. This means empowering teachers to include community practices in the school, and combining academic knowledge with non-formal educational practices and skills.

In a learning community, the entire urban landscape can be an educational resource. In that sense, the city is understood as a living place that is imagined, reimagined, and built by the individuals that reside in it. According to this concept, schools use the city as an educational landscape, and the city as a whole offers ongoing, meaningful experiences to each generation on a wide range of topics that are central to life¹⁶.

Consequently, the concept of holistic education, in tandem with the learning landscape, requires the city to rethink itself, adapting public spaces in ways that allow children and youth to be more physically active and make the city more child-friendly. When children and youths attempt to go beyond the school walls and use urban spaces, we notice how difficult it is for them because the urban setting is designed for adults and the flow of vehicles,

and focused on meeting the demands of work and consumption. This poses a challenge for children to experience the city as a community and a democratic space. It is worth noting that Mário de Andrade suggested way back in 1935 that children are a strong indicator of a healthy city. He believed that childhood would be incomplete without its surroundings, and the growth of both the child and the city should be in harmony¹⁸.

Examples of public-policy initiatives in Brazil, such as the *Bairro Escola* (*Learning Neighborhood*) in the municipal school network of Nova Iguaçu in Rio de Janeiro and *Escola Integrada* (*Holistic School*) of Belo Horizonte in Minas Gerais, show that it is feasible to promote an intersectional integration to enrich the activities that are available to students. These holistic education projects looked for idle spaces in their territories that could initially be used for off-school activities (for example: churches, squares, leisure clubs) and engaged the neighboring community to identify valuable local knowledge that could be included in educational practices. Inspired by those initiatives, the Ministry of Education launched in 2007 the program *Mais Educação* (*More Education*), a national policy on holistic education that was implemented in over 60,000 public schools around the country*.

In this context, parks and public squares also become learning landscapes, just as school grounds can be seen as an extension of the cities' green spaces. In the United States, the school districts (the equivalent of Brazil's *delegacias de ensino*) are some of the largest urban landowners¹⁹. There are no reliable figures for Brazil on this issue, but one can infer that schools represent a considerable portion of a city's public spaces. After all, most communities have a school;

* For more information, visit the website for Centro de Referências em Educação Integral (<https://educacaointegral.org.br>).

and every school has some kind of yard or grounds. Many are paved with concrete and closed to the community; few are fully enjoyed by students. Those spaces represent an incredible lost opportunity for all children, especially those in vulnerable communities.

It makes sense to ask, then:

What would happen if a school rips out the concrete and replaces it with soil, sand and trees? We would have a network of free spaces within the city, greener, more natural, causing a positive impact in the entire community.

In a world where by 2030 sixty percent of the population will be living in cities²⁰, each square meter of green matters, especially since our current reserves are scarce, precious and often inaccessible to many people. The city of São Paulo has 2.6 m² of green space per inhabitant²¹. Just imagine this number if we could include the school grounds as green spaces!



Students at Dona Leopoldina Preschool in São Paulo walk from school to the neighborhood street market, exploring the fresh produce stands.

And what would happen if a school partners with a church, square or park and starts taking children to play and learn there? Experience and common sense, as well as studies^{22,23} and research, reveal that when those territories are occupied, violence and vandalism decline. Moreover, public spaces provide various benefits to the health and wellbeing of the entire community: people will walk more and become more active, thus reducing obesity²⁴; social interaction as well as the sense of belonging²⁵ increase; also, some studies confirm that people whose houses are surrounded by trees have fewer health concerns and experience greater mental wellbeing, compared to those who live in treeless areas²⁶.

Most children who live in dense urban areas have little access to green space and the lack of safety is a real barrier to exploring and playing in public outdoor environments. Those children and their families live in neighborhoods where pavement, buildings or traffic occupy almost the entire space. These communities need more than a few preserved remnants of nature. They need new natural areas and school grounds are a good place to start to create these.

Legal basis in Brazil

What is legally mandated and how the law can foster change

Article 227 of the Federal Constitution protects with absolute priority the right to life, health, food, education and leisure, among other conditions that offer dignity, respect and the protection of childhood from every form of negligence, exploitation and abuse. The law emphasizes that ensuring those rights is the obligation of several sectors in society, including the family and the state. Alana's Absolute Priority program recognizes and embraces this position.

We believe that **children have the right to experiment, learn, play, explore and hide in nature as well as be enchanted by the natural world**. To ensure that these rights are upheld in school, we must first understand what is mandated by Brazilian legislation, as the basis for the changes of which we dream.

In preschool, the recognition that children need movement and diverse sensorial experience has led to a reflection on the design and use of school spaces. Children's need for sunshine, to be outside, to develop physically and be active, as well as other emotional and social aspects called for solutions that went beyond the mere landscaping of the school grounds; preschools now recognize the importance of making better use of schoolyards and providing children with the ability to be active.

However, it is striking and worrisome that a similar consideration has not extended to middle schools and high schools. Government guidelines that set parameters for the design and use of school grounds are limited to early childhood education (see the text box),

What does the law say?

The **National Curriculum Guidelines for Early Childhood Education** clearly states that space in preschools must allow “*ample movement and mobility both within and outside the classrooms and the institution*”²⁷. That means that schoolyards play a fundamental role in enabling movement as well as learning.

The document **Criteria for Child Care in Day Care Centers that Respect Children’s Fundamental Rights**²⁸ expressly states that guaranteeing green spaces in school grounds is a right - “*our children have the right to interact with nature*” - and further details elements and experiences such as “*water, sand, garden beds, walks in the park, being outdoors*”.

The **National Curriculum Guidelines for Environmental Education**²⁹ and the **National Curriculum Guidelines for Early Childhood Education** recommend that, in addition to school grounds, the educational effort must take into account the context and the surroundings of the school as a learning environment: the biomes and territories where they are located and the social-cultural diversity of students.

Another document that can be used as a reference in the design of school spaces is **Basic Parameters of Infrastructure for Institutions of Early Childhood Education**. It emphasizes that “*space in preschools must be diverse to foster different types of interactions; teachers play an important role as organizers of the space where learning takes place. Such work encompass-*





es listening, talking and observing the needs and interests expressed by children and converting them into educational goals”³⁰. The document also suggests that these spaces should “promote adventure, discovery, creativity, challenges and learning as well as favor interaction among children, between children and adults and between children and their environment. It should be playful, dynamic, lively, playable, explorable, transformable and accessible to all”.

Instituto Brasileiro de Administração Municipal (Brazilian Municipal Administration Institute) recommends that buildings should occupy 1/3 of total school grounds and should not exceed 1/2 of the total area³¹. That is an excellent reference for elementary schools to include outdoor spaces in their educational and architectural projects; the larger the natural setting, the greater the benefits for children.

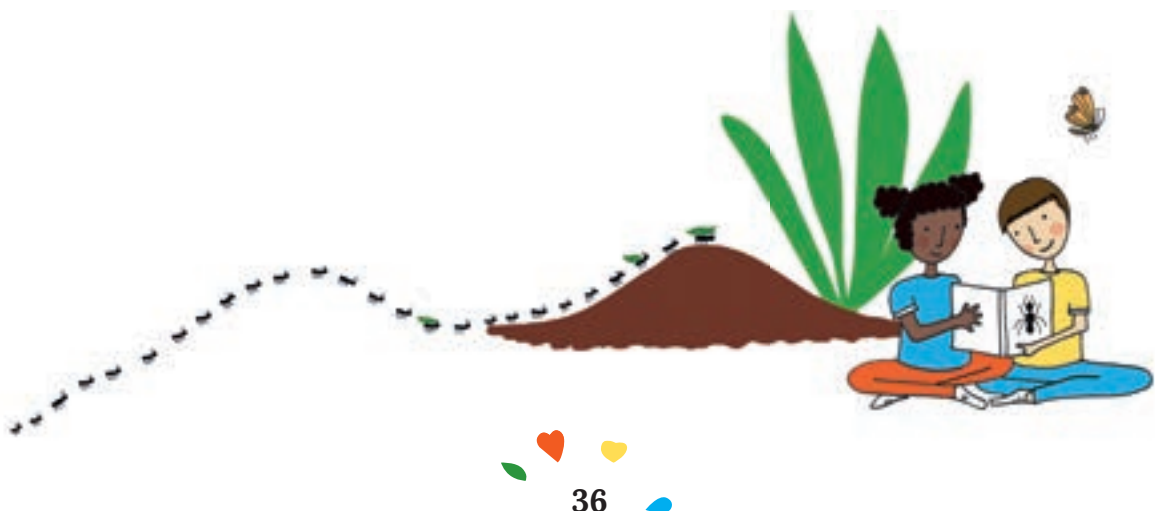
Both **Basic Parameters for Infrastructure and National Curriculum Guidelines for Early Childhood Education** emphasize that school spaces and educational methods must adapt to the geographic, climatic, economic and social-cultural characteristics of each context. The **National Curriculum Guidelines for Environmental Education** recommends that the child’s age and developmental stage must be taken into account in curriculum design. Respect for childhood means respecting the need for play and exploring the world through all senses. This can only be achieved by “unwalling” children, taking them beyond the classroom or school grounds to promote a more diverse interaction with their environment, and thus enhancing a healthy development.



even after the national implementation of the 9-year basic education and middle school curriculum in 2001. Our analysis indicates that much still has to be done to ensure the rights of older children and youth to learn, explore, play, socialize and enjoy nature in the school environment.

Maria Leonor de Toledo warns and provokes us, when she says: *“documents by themselves do not generate change. They express policies and help implement them, but they do not change reality. What is needed to change the situation? How do we make the reality of the schools resemble what is written in the documents?”* As a researcher she suggests that *“we must take a coordinated approach that can handle the multiple factors that affect the issue”*³².

We have studied several cases where these changes actually did occur, and we have identified some of those key factors that will be further detailed in the next chapter.





Children of all ages have the right to interact with natural elements at school.



A roadmap to unwalling and greening schoolyards

Listening to children

Children are outspoken about where and how they want to play and learn. Isn't it time we listened to them?

In her fundamental study, in which she tries to understand the relationship between the obvious environmental crisis that challenges our society and the enclosure of children in daycare and schooling institutions, Lea Tiriba poses the following challenge: *“what could we accomplish with educational innovation if we allowed ourselves to follow children on the path of their desires?”*³³

According to Tiriba, *“children have a true passion for the outdoors because it represents freedom”*, where one can live fully, where adults do not control their bodies and where holistic development, instead of intellectual development, is a priority.

It is key to listen to children as they express themselves in different ways. After all, they are the ones who will use the school grounds. We must ask and observe where, how, with whom and with what elements they play to understand how we can make better use of the space. Children can (and want to) contribute to the transformation or design of school grounds. To do so, we need to recognize and listen to the ways they express themselves that go beyond words, like gestures, drawings, play activities and



Students at Dona Leopoldina Preschool in São Paulo asked for this tricycle track.

verbal and written stories. Initiatives like Alana's Território do Brincar (*Play Territory*); ideas proposed by the researcher Gandhy Piorski³⁴; the Mapa da Infância Brasileira/MIB (*Map of Brazilian Childhood*); Projeto Infâncias; and Criacidade are some examples that may serve as inspiration for strategies on observing, registering and giving a voice to children, including them in the process of changing spaces and routines. This requires us to believe in children's capacity to know what is good for them, a belief in their competence and be comfortable in letting them be the protagonists of their learning process. Of course, adults must recognize that the learning process requires an encounter of learners, the mentor and the child, joining together in the great adventure of life³⁵.

And what do children have to say?

The Grupo Ambiente-Educação (*Environment-Education Group*) at the Federal University of Rio de Janeiro (PROARQ/FAU/UFRJ) conducted surveys on how students felt after their schools were remodeled. In one of the surveys, they noticed that the children in one daycare center climbed chairs near the windows to look at the world outside and often drew the window frames themselves instead of the outside world, indicating their sense of enclosure inside the classrooms³⁶.

Another study on native Tupinambá children³⁷ reveals that for native Indian children the natural world and the human world are part of one universe; humans are not set apart from other living beings as western cultures often believe. When the children were asked why nature exists, it was inspiring to hear them express in their own words a concern for their own being, an expression of biophilia, nurtured by close and intimate contact with the natural world. The role that schools play in the educational process of native Tupinambá children does not represent a rupture between formal knowledge and indigenous knowledge, but a continuity in the development of their sense of belonging to nature and to the entire community of living beings.

We must listen to what children have to say about school grounds and seek to incorporate their wishes and perceptions, giving them due importance and improving the spaces both for the children and for the school community. By doing so, every schoolyard and every school can become a place of joy that encourages discoveries and experimentation and allows for the construction of knowledge and human development.



“When I arrived at Dona Leopoldina Preschool in 2012, I found a school without a specific educational approach. There were abandoned and neglected spaces, such as broken playground equipment, empty sandboxes, and a lack of organized environments for children. Routines were centered around adults and focused on childcare and indoor activities. The administration’s first action was to listen to the children and the school community to hear what kind of school they wanted and what their dreams were. With their input, we developed our educational plan and formed a Children’s Committee to give them a voice, as their point of view is very different from that of adults. Children then started to have decision-making power equal to that of adults in discussions around everyday activities. They became protagonists and authors. Their ideas and needs became reality: walk barefoot, climb trees, play with dirt, place small tables next to the sandbox for making mud pies, a smaller soccer court, a track for tricycles and even a tree house that was designed by the children and built with help from the community.”

Marcia Covelo Harmbach

Director, Dona Leopoldina Preschool, in São Paulo



Teacher training

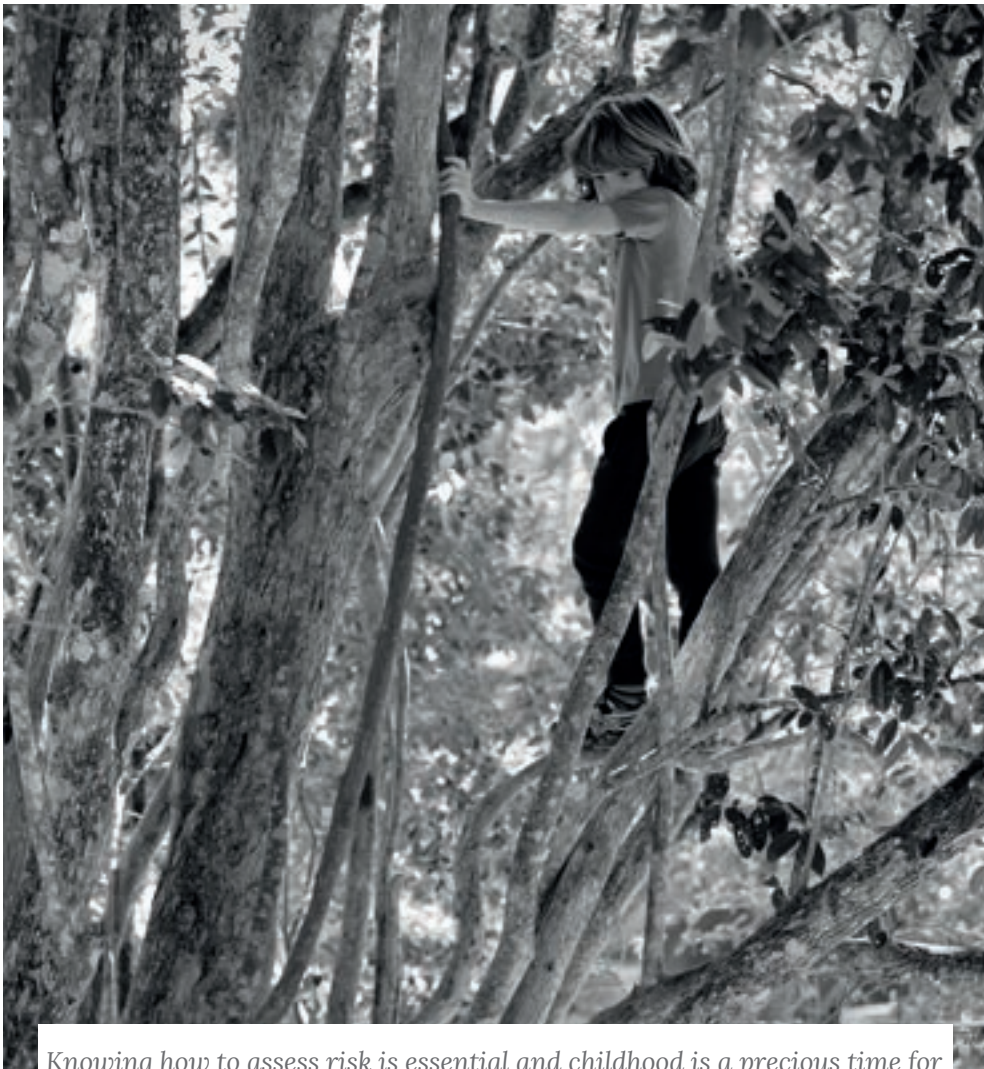
One must remember his or her own childhood nature memories so they can allow children the space and time to also be enchanted by the natural world

When we talk about teacher training, we run the risk of either resorting to old-fashioned methods or following the latest trends. We know there is no single, all-encompassing solution that contemplates the complexity of the teacher professional development. However, we want to highlight some aspects that will transform the way educators see the school space and raise awareness of the powerful life experiences that take place in school grounds and other green learning landscapes. We believe much has yet to be done to recognize those spaces as places that foster diverse learning and to understand teachers' roles in the process of unwalling children and youth.

We acknowledge that, regardless of the training chosen, educators must remember their own childhood memories and the relationships they built with nature during that time in their life. By eliciting those meaningful and experience-rich memories they may realize that many of these are no longer feasible in today's world. They may wish to share some of that experience with the children in their care, **helping schoolyards become a privileged venue where school can become a place for meaningful childhood experiences.**

Moreover, our own childhood experiences tend to influence our actions and thoughts related to children's experiences in the schoolyard and in other school spaces – for example, our memories of play that involved some level of risk-taking, like tree climbing or building a fire. If we can recollect how important, fun and meaningful those moments were to us, we may overcome our reluctance and let the children in our care enjoy similar experiences.

Just as unwalling children is essential, we must also unwall teachers during their training. Awareness-raising activities and hands-on experiences can and should be included in training. After all, if children learn and live outdoors, the same should apply to teacher training, which could be conducted at a picnic, in a schoolyard or in a city park.



Knowing how to assess risk is essential and childhood is a precious time for learning this skill. Schools must be aware of their role in facilitating this.

The risk in playing and learning

Children are capable and competent and will greatly benefit from opportunities to exercise their drive to explore, to go further and beyond, to seek new challenges they can overcome. In the course of that process they develop and improve their skills in facing the unpredictable and handling risks. In fact, that is exactly what will protect them throughout life: they need opportunities to become more competent, to learn and assess what risks they are willing or unwilling to take.

One of the implications of risk-taking is to allow for both success and failure. In this process children experience minor accidents that teach them to avoid greater accidents later in life. That is not to say that children should be exposed to hazards that could jeopardize their integrity such as chemicals, broken playground equipment or playing in areas with car traffic. Teachers and parents should allow beneficial risks that children self-choose to engage in, with consequences they are able to assess and handle.

There is a worldwide movement that champions the importance of risk-taking in playing and learning. In September 2017, the International School Grounds Alliance (ISGA) issued a declaration, signed by 38 organizations in 16 countries and 6 continents, stating that “Risk-taking opportunities are an essential component of a well-functioning school ground. Adults and institutions have a responsibility to use common sense in providing and allowing risk-taking activities for children and young people”³⁸.

And last but not least, we want to emphasize the importance of valuing the playful dimension, to mobilize and develop teachers' talent for playfulness so they can protect children's right to play time. That is one of the roles of both initial and continuing teacher training and education³⁹.

At each training encounter, a game, a song, a childhood memory, an exploration of diverse natural and non-natural materials should help keep that flame alive in the heart and mind of each teacher. Researcher Maria Leonor de Toledo sums up: *"we must include love in the process. We have to help teachers fall in love with nature, just like the children, and make them believe that a more equal and sustainable world is possible"*⁴⁰.



▶ For more information on risk-taking in children's development and play, watch outdoor instructor Fabio Raimo's interview **Children who feel capable** (available at <http://bit.ly/2LzDBGg>), and **Risks worth taking** available at: <http://bit.ly/2uBtkD8>).



School is a place for living important childhood experiences.
Teachers must be sensitive to these.

Environmental education meets free play

In Novo Hamburgo's Early Childhood Education Division, the unwalling process was developed during the teacher training sessions and resulted from combining two key areas: the study of *play* and the implementation of a project for *environmental education* and *sustainability*.

The team felt the need to think of ways to include children in the design process for environmental education projects because concepts like recycling, conservation and even nature were too abstract for them. A key element in the process was to observe

children at play and carefully reflect on those observations, sometimes focusing more on these than on the theory that supported the study sessions.

As reflections matured it became more and more obvious that children needed to be taken outside, that is, out to open, nature-rich external spaces. The children's words, reactions and learning experiences clearly indicated this.

A child's story

The following is a conversation with a two-year-old boy, told by his mother to the boy's teacher at Pica-Pau Amarelo preschool, in Novo Hamburgo:

Mother – What do you want to give your teacher on Teachers' Day?

Boy – A worm (referring to an earthworm).

Mother – An earthworm? I don't think she'll like it.

Boy – Oh, yes, she will!

Mother – I wouldn't like to get an earthworm.

The conversation continues when the mother at some point asks:

Mother – But why do you think the teacher will like the earthworm?

Boy – Because she will put it in the garden, the plant will flower and she will be happy!



Despite his young age, grounded on his own experience, the child is able to propose something so simple and yet so complex: he says no to consumerism and yes to life, to caring, love and beauty.

The team realized that by involving the children daily in managing the compost pile (which they call worm house), they were able to understand a complex process and even relate it to other aspects of their daily life. This reassured the team that they were on the right track. **Before being introduced to environmental problems, the child must experience nature in its fullness and beauty, become intimate with it and connect with it emotionally.** It became clear that environmental education should include direct, unstructured experiences, anchored on play; only when we have become intimate with nature will we adopt behaviors that contribute to a sustainable society.



The expansion of school grounds and community engagement

No open space, trees or dirt?
Look around and find a partner!

When we talk about including natural experiences in school daily activities, the first thing that comes to mind is that we need large spaces and diverse natural resources. However, experience shows that some creativity, initiative and a new way of looking at the issue – recognizing that play and experiential learning are essential and possible – are the key to achieving real change in favor of unwalling children.

As we mentioned earlier, one way to expand the concept of school grounds is to encompass the entire system of open areas and other public or private equipment in the neighborhood, all of which comprise the learning landscape and are inseparable parts of educational efforts. At the same time, we can develop a network of knowledge based on the learning community. In these communities the knowledge of gardeners, cooks, painters and other people involved with the school can take on an educational dimension, while student participation in some of these daily activities may expand the learning sources inside and outside the school boundaries.

Read some inspiring reports!

Santi School in São Paulo (São Paulo) – Located next to Paulista Avenue in the heart of the largest city in South America, the school is implementing the project Escola sem Paredes (Wall-less School) in partnership with UMAPAZ Open University, located in Ibirapuera, one of the city's major urban parks. The project takes some classes to the park, substituting classrooms for open space. Adriana Cury, the school principal says: “we’re so close to Ibirapuera Park; why not take the children there?”



Students at Santi School visit UMAPAZ at Ibirapuera Park in São Paulo.

Bela Adormecida preschool in Novo Hamburgo (Rio Grande do Sul) – The school had a very small yard and so it partnered with a neighboring church that gave permission to use their yard, surrounded by fruit trees, where children have experiences that would never have been possible in the schoolyard.



Márcia's backyard in Nova Iguaçu (Rio de Janeiro) – Prof^a. Irene da Silva Oliveira Elementary School uses a neighbor's backyard to teach environmental education workshops. Márcia got so involved in the project that she became an educator and not just a “lender of the backyard”. One interesting aspect of the project is that every two months the parents also attend a workshop, just like their children⁴¹.

Prof. Ernest Sarlet Preschool in Novo Hamburgo (Rio Grande do Sul) – The school wanted to reach outside of its walls and occupy the adjacent public square. Although it was close, access was outside of the school and complicated, particularly for babies or toddlers. To solve this, a gate was installed in the outer wall facing the square, providing the children with direct, easy access. Later, the school raised funds to buy wooden playground equipment for the square, which can now be used by students and the rest of the community in a fruitful exchange with the city.



A simple gate allows access to the public square adjacent to Prof. Ernest Sarlet Preschool and expands the children's world!



Children at Branca de Neve Preschool in Novo Hamburgo on a walk in the nearby park, looking at a termite mound, accompanied by the local park ranger.

These examples above show how education has become everyone's responsibility; they also show the revitalization and appropriation of public spaces, fostering a sense of belonging and community; and finally they provide inspiration on how to involve people outside the school as co-educators.

Forming partnerships to access other areas is one way of extending the range for children's action, movement and learning.



Partnering with the park

Is the park closest to the school, the one that would be perfect for the children, littered, neglected and underequipped? How about mobilizing families and neighbors to care for and maintain the area so that children and others can benefit? To help with this effort, the Alana's Children and Nature program and the Boa Praça movement (*boa praça* is a Brazilian idiom that means “good buddy”, but literally means “a good town square”) jointly released a handbook with guidelines and recommendations for reclaiming and revitalizing public spaces: **Como ser um Boa Praça** (available at <http://bit.ly/2GUODaR>).

Forest Schools^{42,43*}

This educational model, mostly aimed at early childhood education, originated in northern Europe and later spread to other countries, particularly Great Britain and the United States.

Children in Forest Schools spend most of their time in the outdoors, **usually a public park**, accompanied by a group of teachers. In many cases there is a small base or just a room to store equipment, tools, supporting material, books and first-aid resources.

* For more information about the Forest Schools, please see the website of the Forest School Association (UK), the Forest School for All (US) and the film: “School’s Out: Lessons from a Forest Kindergarten”. (www.schoolsoutfilm.com).





The Forest Schools affirm “there’s no such thing as bad weather, only the wrong clothes”.

The base can also be used as a place to meet, serve as a storm shelter and provide a washroom facility. Other schools take their children to the woods for part of the day and have an institutional base or headquarters nearby. The fundamentals of Forest Schools include:



- **Free and independent play** – children are inspired by their own ideas, choose their own paths and are free to explore and experiment with what motivates them. They decide what each day looks like.
- **Use of tools, fire and natural resources** – available tools, utensils and natural resources such as water, logs, branches, rocks, leaves etc. can be used by children. These materials inspire children and teachers to jointly create a myriad of projects and arrangements. Fire can be used for heating, cooking or for the simple pleasure of gathering around a bonfire.
- **Trained practitioners** observe and provide support to children's initiatives, facilitating experience-based learning and building a collaborative and safe learning environment. Teacher planning is done at the end of day or period after reviewing records and information; resources are identified and organized according to the group's interests or needs.
- **"There is no bad weather, just inappropriate clothing"**. Forest Schools originated in countries where it is very cold during a great part of the year. This is not seen as an obstacle for children to enjoy the outdoors. The key is good preparation, which includes appropriate clothing and equipment.

Forest schools are an inspiring example of how to make better use of public natural areas (urban parks) for regular educational activities through a model that benefits both the park and the school community.



Extending time

It takes time – free time, not chronological time – to get to know oneself

How much time and the quality of time that children spend in the outdoors are also of paramount importance in the process of unwalling children. How do children access the schoolyard? How long do they spend outside the classroom every day? What do they do when they are outside? Can they run? How free are they? After all, schoolyards, backyards and external areas can be places where nature becomes part of the school.

Time management is closely related to school routines and the balance between structured activities and free play. However, chronological time is different from play time. The word play in Portuguese (*brincar*) is derived from the Latin word *brinco* which refers to the notion of *vinculum* (bond). To play, then, is the human capacity to bond with people and with other objects in the world. Desire, one of the most spontaneous human feelings, is the driving force behind bonding, but the urge of desire and the manifestation of these bonds through play demand time – not chronological time, but time associated with the Greek notion *kairós*: timely, opportune moment; a propitious moment for discovery and to connect with the other, a timely moment for desire to flourish and the spontaneous gesture of understanding the world with a unique purpose. For this purpose, we must **reconfigure school time and routines to give children longer periods of unstructured play, enabling them to enjoy the schoolyard for more than conventional fifteen- or twenty-minute recesses.**

Extending the possibilities for free play also influences the role once played by the street and the extended family or community,

and which is now played by the school. The school has become “the place for getting together, for identifying oneself with others, for accepting differences, for building equality, for sharing rules, for sharing responsibilities, for leaving the family context and becoming social; in short, for building healthy relationships that enable us to shape our individuality in relation to the presence of others”⁴⁴.

Upon reflection, the role of the teacher in this setting is not so much that of a controller, but more of an observer: an active and fully present spectator of the spontaneous gestures and desires of children, who need time to learn about the world through play, to experience nature in a meaningful way, to get to know themselves through introspection and to relate to others through shared experiences.





There should be a time for meaningful encounters.



One possibility in organizing routines is to eliminate timetables for schoolyard use. Most schools use predetermined schedules for each class to avoid mixing children of different ages. According to Raquel Alles Kiplich, a teacher at A Bela Adormecida Preschool in Novo Hamburgo where this strategy was implemented, *“groups used to rigorously follow a schoolyard schedule in which different classes never interacted. That concept was slowly deconstructed, giving way to the understanding that scheduled play time is different from time spent hanging out with friends, smelling nature, feeling the sun or the cold, enjoying the trees... Going out is more than just recess. It is an opportunity to explore life and this requires more time than is allocated in the timetable.”*

Without that freedom, how can children take advantage of the unpredictable? The teacher must be free to look up to the sky and notice that it might rain, so he or she can take the children out before the downpour or prepare them to get wet. How can children experience the wind if they cannot go out when it is blowing, because it is not their turn in the schoolyard? How can they watch birds build a nest in the yard if it is not their time to go outside?

Greice Weber, a teacher at Aldo Pohlman preschool in Novo Hamburgo mentions other unexpected benefits from this new way of using the school's outside areas: *“we have made great progress since we have stopped following a schedule for schoolyard use. Children are better integrated, siblings can meet. Teachers also matured in the process. They realized that they couldn't “hang out and chat” with their colleagues during recess while children were playing, but instead needed to focus on the children.”*

What if it is cold and rainy?

Our winter is cold with long periods of rain. Sometimes children are prevented from going out for days as teachers worry they might get sick. However, all children need wide open spaces to be active and move around, and they take great pleasure in trying out new play activities provided by the rain, such as puddles, streams, etc. The cold is also a good opportunity to introduce fire activities for heating.

Evidence shows that children who spend more time in the outdoors than in poorly ventilated classrooms⁴⁵ get sick less often and their immune system benefits from exposure to the natural elements⁴⁶. Therefore, the Novo Hamburgo team faced the challenge and made improvements. “Even when it rains, we go outside because children feel the need to explore that space”, notes Camila Rocha Gomes, the principal of Lápis Mágico preschool in Novo Hamburgo.



Space design, organization and use

Nests, tents, tree logs, water: fulfilling the desires of our souls

In her text *Um Espaço que Favoreça a Infância* (A space that favors childhood), based on more than thirty years of experience at Casa Redonda Centro de Estudos, Maria Amélia Pereira says that we need to create areas that can offer more than the enclosed spaces that adults have made available to children, to allow them to do what comes most natural to them: play, explore and experiment with physical and mental intensity in an incredible process of growth that will awaken the human qualities that lie within them⁴⁷.

In Bangladesh, Matluba Khan, an architect who hails from a family of educators, studied school ground design to include various elements deliberately arranged to expand the possibilities of play and the quality of the school curriculum – math, science and writing – while motivating students and teachers to engage in the teaching and learning process. Yes, the school ground can be an incredible classroom where learning includes movement, research and interaction.

While people tend to believe that size is the main factor in determining if a schoolyard is suitable for that purpose, experience and research actually indicate that it is the presence of elements such as trees, shade, fallen branches, seeds, flowers, soil, water, ropes and the way these are arranged that greatly influence activities and the willingness of both students and teachers to be out in the schoolyard.

Each school can adapt, organize and use its grounds according to its size and terrain, with the financial resources available, and especially based on the institution's educational approach. Often schools can count on parent participation in this process through

the donation of materials and volunteer service to organize the space and build play equipment and other structures.

As the process evolves, school grounds begin to reveal children's *traces and imprints*⁴⁸ indicating that their presence to play, build, explore, climb, learn, get dirty or wet is intentional and their appropriation and transformation of the territory is legitimate and welcome.

The design, structure and use of school spaces ceases to be a rigid process with a start, middle and end, and becomes a living process that reflects the trajectory, a specific moment in life and the diversity of the school community of which it is part. New ideas, structures, hideaways, rituals, activities and projects arise from the experience of both children and adults that will compose the space, which should be simple, harmonious, beautiful and alive.

As mentioned, there is a growing and dynamic international movement spearheaded by the International School Grounds Alliance (ISGA) to advocate for greener, more challenging and experience-filled school grounds. There are valuable examples of this movement in Brazil, like the design of the outdoor space at Ágora Elementary School.

Recommendations for a well-designed learning environment

(adapted from Kahn, 2017⁴⁹)

Diversity: the school ground should be designed to accommodate various types of behaviors, ranging from active, noisy play to contemplation, rest, stillness, interactivity and solitude. There should be spaces that meet the need to explore and to reflect, as well as spots that provide a view beyond the schoolyard (landscapes).

Connection: all the spaces need to be connected through a continuous pathway or a network of pathways that will also provide a spatial element in itself, by stimulating movement, allowing materials to circulate through different settings and offer privacy in various nooks and crannies. A variety of terrain levels is also ideal. Connecting pathways can be formed by creating a path with pieces of wood or stones, trails or a tall-hedge tunnel.

Natural settings: the more nature, the better! Schools with ample space should harbor trees, gardens and sandboxes. A compost unit is also fundamental. Whenever possible, include bodies of water and fire pits.

Mixed environments: areas where play equipment and other equipment are combined with natural elements. Ideally, play equipment (e.g. swing, play house) or structures (e.g. sports field) should be located near natural areas when available, or trees and plants can be incorporated in those areas.

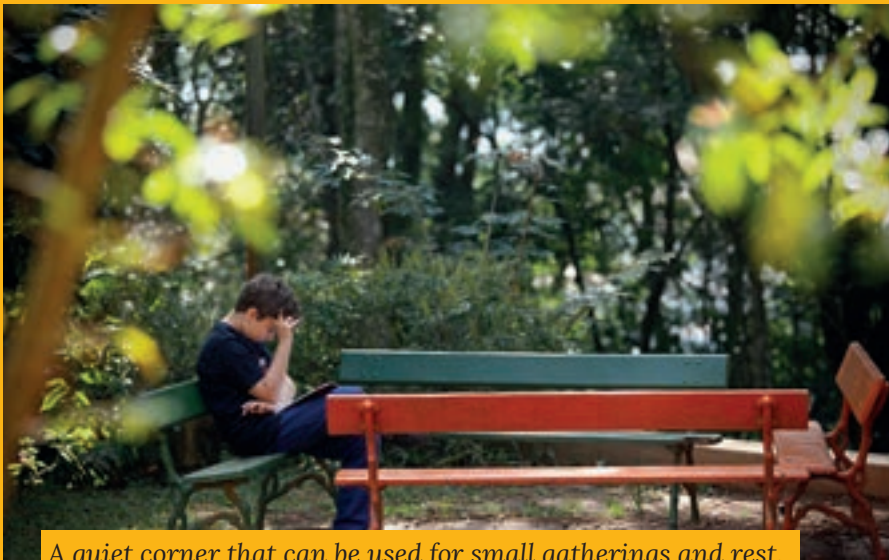
Space for large and small-group gatherings: there should be an area where a class can meet, such as an outdoor theater; there also should be spaces for small group activities, which foster peer relations. These spaces should provide some sense of enclosure.

Hideaways: create or adapt hidden corners and shaded areas where children can have moments of privacy, daydreaming, contemplation and solo play.



Theater presentation in an outdoor amphitheater.

Risk-taking and challenges: children should have access to challenging elements like rough terrain, ramps, stairs and climb. Beneficial risks (those with acceptable consequences) are essential components in the child's development process. Ideally children should be free to circulate in these areas, independently, without direct adult supervision.



A quiet corner that can be used for small gatherings and rest.

Beauty: we all have the right to beauty, to harmony, and childhood is a period in life when one is particularly sensitive to the values of beauty found in nature and art. Each flower, plant, rock or other natural element helps bring beauty into the child's or young person's daily life.

Suggestions for school ground settings



Settings/ Elements	Description
Natural areas	Fruit trees, perennial or deciduous; vines on fences or walls; bushes; grass
Garden	Vegetables, ornamental plants, scented flowers, colorful flowers, aromatic herbs
Compost	On the ground or in earthworm boxes
Outdoor amphitheater	Seats, stage, blackboard
Water	Outside tap that children can access; fish; aquatic plants; cistern
Rocks	Boulders; colorful stones; gravel, crystals
Soil	Dirt floor, sand, soil to make clay
Loose material	Buckets, pots, shovels, rakes, baskets, nets, cloths, boxes, chalk, real-life gardening and construction tools, balls, ropes, seeds, sticks, logs, leaves, shells
Open surface	Lawn, dirt soil, concrete, gravel, stone
Play equipment	Swings, see-saw, bamboo climber, play house, slide, benches, tree stumps, small “town square”
Fire	Fire pit on the ground or a large copper bowl to build a fire in



A simple rope and some tires can be enough to transform a slope into the best corner of the schoolyard.



School grounds at Ágora Elementary and Middle School (Cotia, SP)

Description based on students' impressions of school grounds⁵⁰:

- 1.** In ancient Greece, the **Ágora** was a square for large gatherings; this school is a place where there is a lot of interaction among people: lessons, meetings and a great amount of free play.
- 2.** It may look just like some tree stumps arranged in a circle, but it is much more than that. The **stools** are for people to sit on and talk, study, think, reflect, relax, create, share memories, tell stories and relive memories.
- 3. Forts and huts:** children aged 7-12 have a strong instinct to expand their exploration territory beyond the safe home environment, for example by building refuges and secret dens in the natural world⁵¹. Grade 1-9 students have been building huts in these evergreen woods for the past thirty-two years, exclusively by interacting with their peers, without any adult interference or meddling.
- 4. Classrooms** have only three walls and no doors, so children can look outside. This is an interesting method to teach children how to exercise self-control: they hear noises but know that they have a task to complete, teaching them how to concentrate on their work.

5. Old mango tree: meeting hub, important reference for all students who climb, play, talk and balance on the branches.

MAP DRAWN BY A FORMER STUDENT, BASED ON OLD AND NEW USES OF THE SCHOOL GROUNDS



Examples of space used for projects and activities at Ágora Elementary School

Crazy hopscotch

Open spaces allow for several activities to develop counting and spatial notions. Learning processes that involve the body and engage the senses and intellect are very meaningful in the early school years. One of the activities proposed for second grade is the crazy hopscotch, an arrangement of circles or ovals, each one containing randomly placed numbers in sets of tens. Children are challenged to step on the right circles to follow pre-determined sequences; for example, increasing or decreasing sequences of multiples of ten.

Measurements

One of the fifth-grade projects helps children learn about measurements: how ancient peoples created units of measurement and their evolution throughout time; calculations of surface area, volume and mass; measuring the size of large objects and heights. Students come up with their own units of measurement, test them, assess their accuracy level by converting them to the metric standard and research ways to adjust them. The sports field, the classrooms and the trees in the school are some of the objects that are used to learn about dimensions.

Word-search around the school

The school grounds are filled with information and meanings that children can explore during play time in their *free time*, as

recess is called. Resources include trees, plants, animals, minerals, buildings, toys and games created by the students themselves and various events that take place in the school setting. The school serves as a rich source of words, facts and landscapes that can elicit conversations and writings filled with meaning. To promote literacy, the second-grade students have developed several activities based on this rich and dynamic environment. In one of the activities, students are grouped according to their writing skills. They go around the school grounds with the following tasks: write down a list of objects in the school (naming); write short sentences or phrases that show things that are happening around the school (informing); write a description of one place or a landscape so that other students can read it later and guess what it is (describing).



Organization that remodels schoolyards in Chile

Pátio Vivo (*Living Schoolyard*) Foundation, an organization based in Santiago, designs projects to convert schoolyards into learning landscapes that promote healthy relations, free play, creativity, healthy habits, contact with nature and experience-based learning. Their team of architects, landscapers and educators believes that space is like an additional teacher that inspires children's actions and helps them learn and develop.

The Pátio Vivo Foundation projects for schoolyards encompass each school community's educational strategies, spatial and geographical characteristics, and their vision.





Before and after.

In this example, the project for a school in the foothills of the Andes in Santiago (Colégio Polivalente Jorge Huneeus Zegers) set out to create a learning landscape where students could interact daily with nature, not only visually, but by actually touching and experiencing nature directly. To achieve this, they used elements from the Cordillera landscape, such as stones and pebbles from the Maipo River and native trees, while also providing proper water draining.

The schoolyard is now a welcoming space. During recess, children hop stones or sit and talk in the shade of a tree. Whenever they wash their hands or drink water they automatically water the trees. Moreover, the sloping terrain has become an open outdoor classroom.

According to Mónica Andrade, a member of the school community, *“the children have benefited from a nice and sustainable environment; in addition, accidents and aggression on the playground have decreased and behavior has improved; we now experience a healthy coexistence”*.

Offering children a choice of materials

Children express their ideas by interacting with different textures and elements

The quality of an environment is the result of several factors. It is influenced by the shape of the area, by the way it is functionally organized, by the materials used in its construction and by the set of sensory perceptions (light, color, climate, sound, texture, smell, flavor) offered by the available elements and materials. A school environment should provide a rich sensory experience. When selecting elements for the space, the sensory diversity of the materials should be considered as well⁵².

However, when we look at the range of materials and toys available for children in schools, we must ask ourselves: why do these almost exclusively consist of lifeless manufactured objects, predominantly made of plastic or other non-durable material, often with built-in obsolescence and frequently featuring licensed characters? In schoolyards, likewise, we see predominantly undiversified play equipment fixed to and placed close to the ground. Rarely do we see monkey bars or a merry-go-round as they are considered too dangerous nowadays.

A reflection upon unwalling children also calls for the selection of appropriate materials. As we expand our repertoire of elements and resources for learning and play – in terms of sensory and motor stimulus – we also expand the opportunities for imagination, creation, learning and movement.

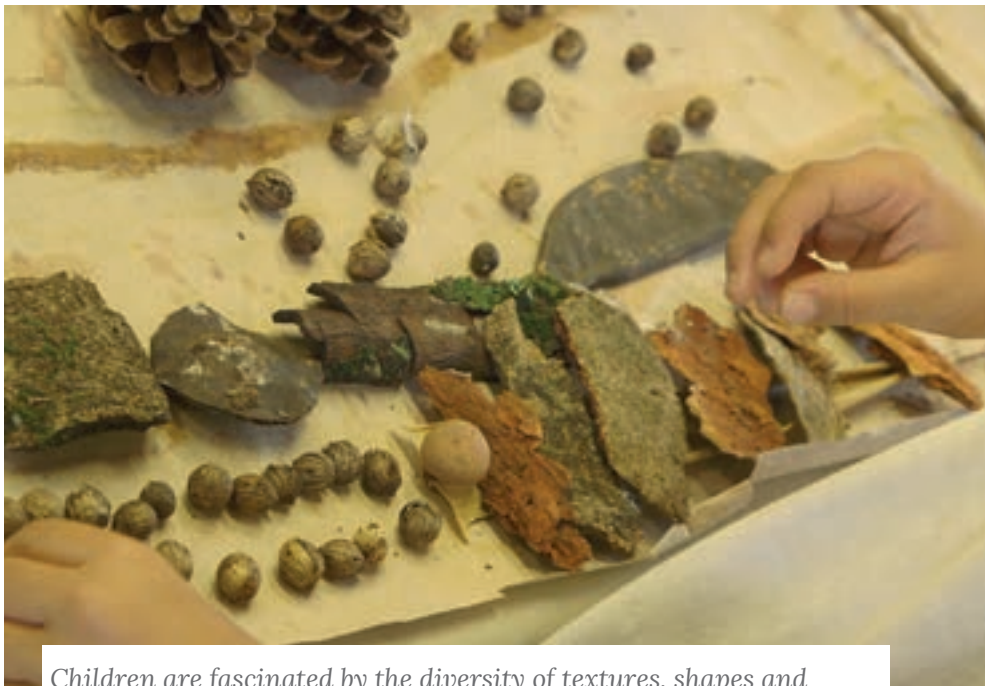
Childhood researcher Gandhi Piorski conducted various studies that indicate that contact with nature-based materiality is essential for immersing our senses. For Piorski, it is the relationship that

the child establishes with their surrounding world of matter and substance, corporeality and crafts, that will spark the imagination for play⁵³. The child will then fulfill his or her desire to build, create, assemble and play by accessing different languages of expression and experimentation, thus developing ever more complex and sophisticated motor and creative skills and strengthening their bond with the surrounding world.

RECOMMENDED MATERIALS

Wooden toys: these provide weight, texture, durability, vestiges of time and different aromas, compared to plastic toys.

Ceramic, wood or metal kitchen utensils: pots and pans, teapots, wooden spoons, silverware etc. help children explore original ma-



Children are fascinated by the diversity of textures, shapes and colors of seeds. It is worth keeping a collection of these in the school.

terials and activate their imitation of the real world with more meaningfulness and depth through play.

Non-structured materials: leftover pieces of wood (small sticks, planks and bigger sticks), cloths, bark, seeds, stones, straw, shells, ropes, wire etc. stimulate children's creativity. "Loose parts"⁵⁴ invite children to explore a world of possibilities that expands their repertoire and the unpredictability of narratives and experiences; playing with non-structured materials expands the child's capacity to learn by doing.

Natural elements: soil, sand, air, water, clay and fire. Each one sends a different and special message to children. We keep children away



The playhouse in this school is furnished with real-life objects.

from water out of fear that they may get sick, and we keep them away from fire, out of fear that they may hurt themselves. Instead, we should offer them opportunities to safely interact and experience the four elements. Examples: roast food on a fire, bake clay objects made by the children, plant, build huts, play with garden hoses and buckets, dig tunnels in the sandbox, fly kites etc.

Tools: children are interested in and attracted to everything that is real. Handling fake tools made of plastic can be frustrating and causes a sense of powerlessness. Under adult supervision, it is possible to gradually introduce basic tools as hammers, screwdrivers and saws, thus expanding the reach of their actions and satisfying their desire to replicate the adult world, building objects of their choice.



Gathering around a fire is a rare experience for most urban children.

Why is it important to play and learn in nature at school?

How do we explain to parents and teachers the value of nature play and outdoor learning at school? Or why we are adding trees, soil, rocks or water to the school grounds? In this chapter we will present some ideas and research that support the benefits of unwalling and improving the way school grounds are designed and used. This is an adaptation of a chapter in the publication *National Movement for Green Schoolyards in Every Community*¹, published by the Children & Nature Network.

Although we are aware of the differences between Brazilian communities and some of those mentioned in the C&NN publication, we have chosen to include these studies because we believe that science supports the benefits of contact with nature on the school grounds as part of a human dimension that is shared between cultures.





School is a place to *experiment with yourself in movement*

We believe that if school grounds **incorporate natural elements**, the physical development of children and youth, and consequently their **health and wellbeing** will be greatly improved.

Green school grounds, containing a greater diversity of landscapes, diversify the play repertoire, creating opportunities for boys and girls of all ages, interests and abilities **to be more physically active** ⁵⁵.



**Trees, rocks, logs,
ramps, steps = run, fall,
jump, climb, balance!**

School grounds are richer when they contain **a combination of natural elements and traditional playground equipment** – like swings and monkey bars – to accommodate all levels of children activity and preferences⁵⁶.

More diverse terrain and natural resources = more physical activity, challenges, diverse movements and physical literacy.

SPACE TO ACCOMMODATE ALL PHYSICAL DESIRES AND NEEDS

Have you noticed that freedom and time **to play in open and natural spaces** stimulate curiosity, concentration, interest and a willingness to learn?

This material was inspired by the publication *Building a National Movement for Green Schoolyards in Every Community*¹, published by the Children & Nature Network in 2016.

School is a place to *interact with others and feel all right*

Restructuring the educational process assumes a comprehensive and systemic reflection that takes into account children's need for sensitive and meaningful experiences that promote discoveries and foster bonds.

Freedom and nature are essential components of those experiences.

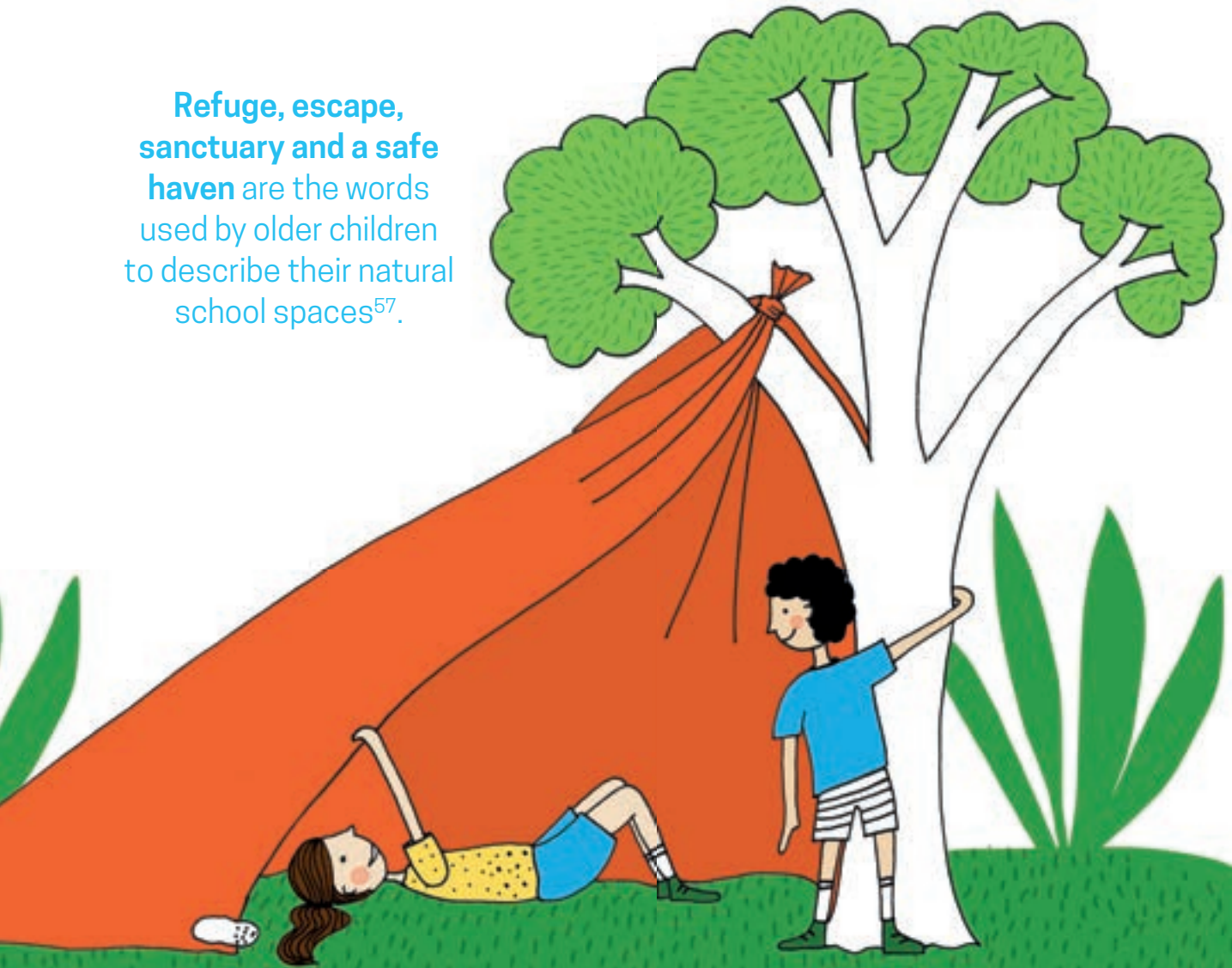
Nature-rich school grounds provide more opportunities for interacting and socializing with peers.



Greener school grounds and other learning landscapes contribute to a greater **wellbeing and develop social-emotional skills** through sensitive and restorative experiences.

In a world where it's increasingly rare for children to be away from adults, these spaces represent opportunities for privacy and solitude so that children and youth enjoy **moments of self-reflection or spend time among peers.**

Refuge, escape, sanctuary and a safe haven are the words used by older children to describe their natural school spaces⁵⁷.



This material was inspired by the publication *Building a National Movement for Green Schoolyards in Every Community*¹, published by the Children & Nature Network in 2016.

School is a place of *meaning, ideas and interests*

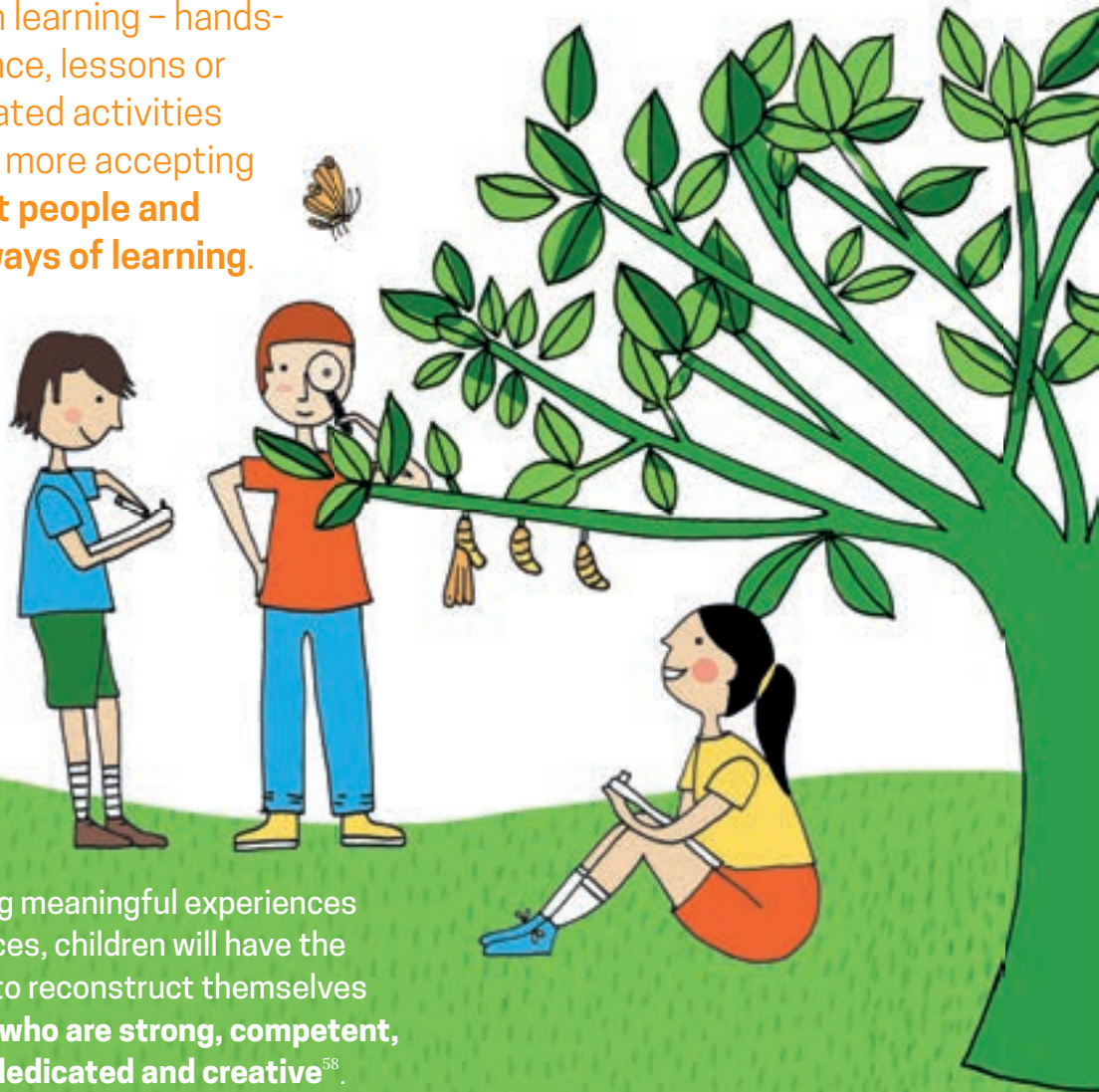
Greener, more nature-rich school grounds and other learning landscapes contribute to **building knowledge** through **direct and sensitive experiences**, generating important learning experiences for children and youth. Daily contact with nature allows for discoveries about the complexity and diversity of all living systems and their interactions.



By observing and experiencing nature, children will learn that natural systems develop and evolve, helping them to understand the meaning of vital concepts such as renovation, rhythm and evolution.

Learning to think systemically involves understanding contexts, relations and interdependence. Nature can contribute to this process by teaching us about its own diversity, showing the strength of diversity among individuals and different ways of learning.

Greener schools and the use of different spaces and elements in learning – hands-on experience, lessons or other mediated activities – makes us more accepting of **different people and different ways of learning**.



By developing meaningful experiences in these spaces, children will have the opportunity to reconstruct themselves as **students who are strong, competent, interested, dedicated and creative**⁵⁸.

This material was inspired by the publication *Building a National Movement for Green Schoolyards in Every Community*¹, published by the Children & Nature Network in 2016.

School is a place of *play*

Children need **to play peacefully in nature**, integrating their inner self with the outer world and strengthening their **positive connection with life**³⁵.

Natural school grounds promote **free and spontaneous play** that is rich in trust, cooperation, autonomy and diversity.

Nature in the school environment and in other learning landscapes, along with the freedom to play, contributes to learning processes that contemplate **children's individuality, creativity and autonomy**.



1. Contact with nature during childhood enables experiences and mediates the building of **relationships between the child and the world**, expanding the child's repertoire of references on goodness, truth and beauty.
2. Nature offers infinite possibilities that satisfy children's **various desires and interests** making each child feel that his or her individuality is valued.
3. Outdoor play fosters the relationship with peers, in a slow exercise of interacting and **socializing with the other**, creating opportunities to develop attitudes such as **empathy, listening, collaboration and conflict resolution**⁵⁹.



This material was inspired by the publication *Building a National Movement for Green Schoolyards in Every Community*¹, published by the Children & Nature Network in 2016.

Inspirations

It can be challenging to share promising practices of schools that seek to integrate nature in their educational efforts, spaces and times; Brazil is an enormous country, with a huge diversity of contexts and settings. Therefore, what may work very well in one community may not be applicable to another. We know that incredible experiences are taking place in all corners of our country. Some of them are part of the *Changemaker Schools Network*, a partnership between Ashoka Brasil and the Alana Institute; others are part of the *Mapa de Inovação e Criatividade da Educação Básica* (The Map of Innovation and Creativity in Basic Education) published by the Ministry of Education in 2015; still others are unknown. What they have in common is that they are developing their own methods to enhance children's opportunities for outdoor learning and play in nature, based on their strengths and weaknesses. These are inspiring experiences that promote the much-needed interaction between children and nature in the urban learning landscape.

Although we haven't made an exhaustive list of all initiatives, our intention here is to present some examples of public and private schools to encourage a reflection on how we can change our educational strategies. These educational experiences involve toddlers, children and youth and can help us rethink our beliefs and practices by presenting different approaches to reconcile school with nature, children with nature, learning with nature – and all of that with life.



Dona Leopoldina Preschool in São Paulo (São Paulo)

Winner of the award “Desafio 2030 – Escola Transformando o Nosso Mundo” (2030 Challenge – School Transforming our World)

Starting in 2012, this school in west São Paulo redesigned its educational approach, drawing inspiration from the theories of Paulo Freire and Reggio Emilia/Loris Malaguzzi. The school implemented changes in three main areas: art, environmental education and play. The learning spaces seek to restore the relationships between the individuals, the school, the neighborhood, the community and the biome, highlighting principles of ecological literacy, permaculture and Paulo Freire’s proposition for the need to build autonomy and promote a dialogue between children and adults.

The school reflected on the design of time and spaces to foster a true childhood experience and interaction with nature, making school a place where people, animals and plants engage with each other through multiple languages.



“Our main goal is to reclaim the backyard and street that children have lost and provide moments for the rituals of childhood culture.”

Marcia Covelo Harmbach, principal

Casa Redonda Centro de Estudos (Round House Study Center) in Carapicuíba (São Paulo)

*Preschool, part of the Map of Innovation and
Creativity in Basic Education*

Over the course of thirty years, Casa Redonda has been a natural area, open for encounters with childhood. Every morning, the school welcomes around thirty children who come to play and enjoy the freedom of movement, flow and paths. The space has become an important national reference for early childhood education and for studies on the culture of childhood. Children relate naturally and directly to the elements, our indispensable everyday companions: water, earth, fire and air, in harmony with the four seasons. A morning in Casa Redonda is like being on a living set where actors-authors act spontaneously, driving opportunities for movement and action that determine their space and time for play.

We recommend a visit to their website (Portuguese only) to read the valuable content, excerpted from a book that offers an overview of three decades of learning³⁵.

Vila Verde School (Green Village School) in Alto Paraíso (Goiás)

*Preschool and middle school, member of the
Changemaker Schools Network in Brazil*



Vila Verde is a private school near Chapada dos Veadeiros National Park in Alto Paraíso de Goiás, in the savanna of the Brazilian Midwest. Founded in 2010 by a group of parents, the school is currently maintained by Caminho do Meio Institute, with 70 students who learn at a young age to care for the place in which they live. To do so they are encouraged to get to know the territory, combining theory and practice, before consciously interfering in the environment. The next step is for the children to take ownership of their environment, with respect and responsibility. Various stakeholders in the school community are strongly involved in protecting the environment, encouraged by the area in which they live. The need for the preservation of local flora and fauna enhances awareness of sustainable habits that will protect life for future generations. According to Fernando Leão, the school principal, *“all spaces in the school are learning spaces”*.

Ágora School in Cotia (São Paulo)

Elementary and Middle School

For over thirty years, Ágora has tried to understand the current context and trends, offering society what it believes is missing in our modern world and, more importantly, what they foresee will be lacking in the future. Ágora has become a reference for the idea that not only preschools should have grounds that promote outdoor play and learning, but also elementary and middle schools. Their experience with enhancing self-control (ranging from open classrooms to no school bell) and offering a space that promotes intimacy/autonomy, reveals a very sophisticated understanding of the dynamics of a school community, its space and time.



Thus, in a large space with many trees and rich fauna, in open classroom and with plenty of shared multifunctional environments, learning is created and shared among students and teachers in a process that more closely resembles a vibrant and living community rather than an ordinary school.

“Our merit was to resist pressure all this time: families or teachers pressured us to reduce “the free timer”, the time after a snack or lunch, when students can freely move around in a defined space, unsupervised by teachers or staff. We also banned children from bringing toys, electronic games and cell phones to promote their creativity and let them fill the time and space available to them⁶⁰.”

Terezinha Fogaça de Almeida, principal

Amigos do Verde (Friends of the Green) School in Porto Alegre, Rio Grande do Sul

Preschool, Elementary and Middle School, a member of the Changemaker Schools Network in Brazil and listed on the Map for Innovation and Creativity in Basic Education

Na década de 80, pouco se falava sobre ecologia ou conservação. In the 1980s, few people in Brazil spoke about ecology and nature conservation. But in 1984 Silvia Carneiro, founder of Amigos do Verde School, opened an educational space integrated with nature and engaged in environmental issues. The school brought a new vision and model for learning and coexistence to help prepare students to contribute positively to the world.

At Amigos do Verde, nature is the most important learning tool; the children grow up and develop in a large space, interacting with plants and animals, encouraged by an inquisitive, loving and conciliatory approach. All activities focus on respect for nature's rhythms and for other people; the school is an organic community in which children's experiences add meaning to their learning.

Escola Dendê da Serra in Serra Grande (Bahia)

Preschool, Elementary and Middle School, member of the Changemaker Schools Network in Brazil

Until 15 years ago, the region of Serra Grande between Itacaré and Ilhéus was hardly accessible. The construction of a new highway changed the entire context of the remaining portion of Atlantic rainforest. The small community of strong Indian and African ancestry suddenly experimented a heavy influx of outsiders, followed by the corresponding environmental, social, cultural and economic impacts. The community is now looking for ways to preserve its local culture and biodiversity through alternative sustainable development in a new socio-economic landscape.



The Dendê da Serra Education Association is a stakeholder in the community and faces the challenge of adapting the Waldorf education method to the reality of Serra Grande, embracing students of all origins, particularly low-income families from the village and the outlying rural areas. Experiential learning and nature are an essential part of the school routine and teaching efforts. Children are free and encouraged to explore the school surroundings, the rivers, the seashore and the forest. They are often taken on visits to a nearby private reserve where the forest, water springs and the river estuary are protected.

“There are no walls around our school and we are surrounded by the forest, scrub and rivers. Our students have different backgrounds and different ways of relating to nature. Some boys love to run, jump and climb trees; other children come from a more urban setting and are insecure when they arrive. They lack motor coordination and balance and are afraid or repulsed by critters, mud, sand... As time progresses their evolution is evident, stimulated by the lush green surroundings, full of life. Slowly they overcome their fears, become capable of new body movements and gain more confidence and motor skills. On the other hand, children from the rural area, who often grow up with a more predatory view of nature, undergo an important learning process. They develop curiosity, affection and an urge to protect as they begin to observe and discover the characteristics and beauty of each living creature. Either way, contact with nature around the school, mediated by teachers and explored in their free play, has a deeply transformative impact on all children.”

Silvia Reichmann, founder and teacher

Escola Santi in São Paulo (São Paulo)

Preschool, Elementary and Middle School

With simple solutions and great willpower, Escola Santi promoted several changes to its school grounds and practices as of 2016. Walls were replaced by glass windows that let in natural light and provided a view to the garden. Vertical vegetable gardens, vines, earthworm boxes, compost and a good dose of creativity brought Santi – a school only three blocks from São Paulo’s busy Paulista Avenue – closer to nature. 720 students ages 1-14 are involved in tasks that include collecting leaves, looking for insects, caring for plants, monitoring the blooming of flowers and hands-on activities. In 2017, the project Escola Sem Paredes (Schools without walls) was launched in partnership with UMAPAZ. As part of the project, five-year-old children are taken to Ibirapuera Park for playful activities that involve lots of nature observation and exploration.

“It is very easy to observe how engaged and enchanted children are in their interactions with nature, whether it involves a specific class or art and play. The way they relate to the school grounds has also improved. Before, children seemed oblivious to the gardens on the school grounds. Now they feel ownership. Maybe the main change has been in their perspective and perception, which does not require extra space or money. Appreciating a cloud, listening to birds, playing in the rain, walking barefoot, collecting leaves and twigs, finding insects in the garden, playing freely without structured elements, substituting plastic toys for pieces of wood – all that costs nothing and provides a wonderful effect.”

Adriana Cury Sonnewend, principal

**Instituto Toca, Educação Sistêmica no Campo e na Cidade (“Toca Institute, Systemic Education for Town and Country”)
Escola da Toca, Fazenda da Toca and Projeto Rede (“Toca School, Toca Farm and Green Project”)
Dulce de Faria Martins Migliorini Municipal Preschool,
Elementary and Middle School in Itirapina, São Paulo**

Toca Institute is listed on the Map of Innovation and Creativity in Basic Education

Escola da Toca is a rural school community with a single multi-grade class with 50 students, ranging in age between 2 to 6. The school is located on Fazenda da Toca, an organic farm in upstate São Paulo, and features forest-crop integration (a so-called agro forest), hives with non-stinging native honey bees, a compost pile, a composting toilet, a chicken coop and other elements. With the horizon as their boundary and the woods as their classroom, the team has developed a comprehensive method for learning from nature, creating an educational approach they call systemic education.

In 2016, jumping, running, hopping, planting, harvesting and cooking ceased to be a privilege of children in the rural school. The new Projeto Rede (“Network Project”), a partnership of Instituto Toca and the municipal Education Department of Itirapina implemented the systemic education method in an urban school, known as the “Dulce”, a school where 170 children, from preschool to middle school spend the whole day.

The first step was to redesign the afternoon curriculum to bring nature into the school grounds and take the children out of the classrooms and beyond the school limits. The school created more than thirty weekly workshops from which the children themselves



would choose. The multi-grade sessions played an important role in the transformation of people, relations and spaces.

Now, like their counterparts in the rural school, children in the city can also plant, harvest, cook and compost. Immersed in an urban area with a forest-crop integrated garden, a herb spiral, a nursery and bioconstructions, they care for and watch their trees grow. They can also play and explore the green spaces that the city offers. After all, the entire city can be a teaching landscape!

Novo Hamburgo (Rio Grande do Sul) Public Early Childhood Education System

During eight years, between 2008 and 2016, the Early Childhood Education staff of the Novo Hamburgo municipal school system

partnered with professionals in 33 schools – principals, coordinators, teachers, cooks, registrars and janitors – and studied, reflected, matured and changed the ways that schedules, spaces and routines were managed, to allow children daily interactions with nature.

“At the end of a pleasant afternoon hike, after swinging from a tree vine, crossing a bridge, climbing a red berry tree, enjoying a picnic, making a shower of dried leaves, and frolicking with his peers, 3-year-old Ruan came to the following conclusion: today is a perfect day to play! Ruan had spent the afternoon in the outdoors at Ernest Sarlet Center for Environmental Education, playing without any manufactured toys. If he can see that the place and circumstances are perfect for play, we must take a closer look and come up with more opportunities for this type of joyous life experience.”

Rita Jaqueline Morais, teacher

Te-Arte Criatividade Infantil (“Te-Arte Childhood Creativity”) in São Paulo (São Paulo)

Preschool

“Learning by playing”, reads the sign at the school entrance. Rather than organizing school routines around directed activities and only providing free play during recess, as most preschools typically do, at Te-arte play is the main activity.

How does it work? Part of the secret is setting up the school grounds to resemble a big backyard, like you may find at a grandparent’s house. There is a main house with a large round room, a kitchen and a carpentry workshop. The round room can be converted into dif-



ferent settings: a stage, a dining room, an arts studio or a room for physical activities.

Outside, the backyard's sloped terrain divides up the space and includes a small play field, a passage with a wooden playhouse, a sandbox and a track for carts. There are gardens throughout the space, including a vegetable patch, a compost pile, a chicken coop and a wood stove.

What about free play? Children aged 8 months to 7 years are free to decide where to go and what to do. Teachers look after different areas and children freely roam around the spaces as they choose their activities. They learn by playing and the main focus is on learning how to relate to others, including children with special needs.

Respect, the right attitude and boundaries are important values in relationships. The entire cycle of activities is organized by a team coordinated by Renata Perin and overseen by the school founder, 86-year-old Therezita Pagani, a pioneer in childhood education for over forty years.

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Support Material

Alana's Children and Nature program has produced the following videos about education and connection with nature. They support the rich dialogue that is already underway about green school grounds.



Freeing children from the school walls

In this interview, educator Lea Tiriba points to the importance of unwalling children at school to allow them to relate to the elements in the natural world, so they can fully realize their potential as they encounter their own inner nature. [Available at **http://bit.ly/2mv1vb9**](http://bit.ly/2mv1vb9).



Early childhood education and free play in nature

Educator Marcia Harmback shares her experience as the principal at Dona Leopoldina Preschool in São Paulo. She states how important it is to guarantee free natural play for children in school grounds to promote cognitive, social and psychic development. [Available at **http://bit.ly/2O6EpEj**](http://bit.ly/2O6EpEj).



Risks worth taking

The video demonstrates that by learning to take and assess risks, children grow up to be resilient adults capable of exploring the

world rather than fearing it. Nature is the ideal environment for children to face situations that will help them learn about their limitations and possibilities. [Available at http://bit.ly/2uBtkD8](http://bit.ly/2uBtkD8).

Nature as a space of comfort

Internationally acclaimed childhood and nature experts from the International School Grounds Alliance talk about the importance of children's relationship with natural environments and how families, schools and communities can contribute, strengthen and commit to strengthening this relationship. [Available at http://bit.ly/2IumWCn](http://bit.ly/2IumWCn).

Greening children's learning

This video inspires reflection on what is actually relevant in school grounds, suggesting that unwalling children and offering them natural elements to play on a daily basis at school are fundamental to their physical, mental and social development. [Available at http://bit.ly/2JGdxHI](http://bit.ly/2JGdxHI).

Children who feel capable

An interview with outdoor instructor Fabio Raimo discusses the value of risk-taking in child development, demonstrating how unstructured natural play is best way for children to learn how to handle fear, overcome limits and feel capable of interacting safely with their environment and the world. [Available at http://bit.ly/2LzDBGg](http://bit.ly/2LzDBGg).

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*This publication is endorsed by the
International School Grounds Alliance.*

“As an educator I am very pleased with this publication that will help us – particularly teachers and school leaders, but also families – to facilitate children’s reclaiming of school grounds: public spaces that belong to them!”

Lea Tiriba, environmental educator and professor
at Escola de Educação / UNIRIO

“We believe that children have the right to experiment with, learn, play, explore, hide and be enchanted by nature and that different sectors of society, including schools, have to make the effort to make this happen.”

Maria Isabel Amando de Barros, researcher at Alana’s
Children and Nature program