Making the Case for Natural Playgrounds

by Adam Bienenstock

"Natural Playgrounds should be the standard for all our playgrounds. They truly connect children with nature through play and are a sort of classroom for the next generation of environmental stewards."

—Dr. David Suzuki

We've been designing and building playgrounds across North America for child care centers, schools and public parks and institutions for some time now. Our work began intuitively. We were just making playgrounds out of the stuff we played with when we were kids…rocks, logs, hills, dirt, sand, water, big trees…We began doing this in 1982 before they were called 'playscapes' or 'natural playgrounds'. The work was called school ground greening and was considered a fringe movement. In the last decade everything changed. Richard Louv's book, Last Child in the Woods shone a bright light on the cause of connecting children to nature and his work along with the work of so many on the fringe, has moved us all into the mainstream.

Although natural playgrounds are still intuitive to experiential educators, now they are backed by an ever growing body of evidence that connects healthy child development to their exposure to nature. By placing playground theory and practice under the lens of how they contribute to child development, twenty years of playground work is now being challenged.

The diversity and complexity of experience and the child's ability to interpret and grow with their playground features are fundamental to their development physically (Grahn et al., 1997, Fjortoft & Sageie, 2000, Fjortoff 2004), cognitively and socially (Moore & Wong, 1997, Lieberman & Hoody, 1998, Taylor et al, 1998, Wells & Evans, 2003, Burdette & Whitaker, 2005, Ginsburg. 2007).

There is an exercise we go through with adults every time we are speaking at conferences or hosting a design facilitation. It goes like this: first we ask by a show of hands who remembers playing unsupervised in a natural setting with the instruction to be home for dinner or before the streetlights came on. Most people put up their hands. Then we ask who has children. Again, most people put up their hands. Finally, we ask how many would let their children out to play unsupervised until the streetlights come on. Everyone nervously laughs and usually two people in the audience apprehensively put up their hands. This type of freeplay is over, now our kids play in fenced pens (Hillary et al., 2005, Department for culture, media and sport.UK, 2006 , Chancellor 2007). Our playgrounds must be the front lines of the quest to connect children to nature when and where they play. However, there are still myths about playgrounds that become obstacles to bringing nature to our children every time we consult on a natural playground project.

The three most common natural playground myths and how we combat them.

Myth 1: Playgrounds are for kids to blow off steam and natural playgrounds don't provide enough gross motor activity.

A study by Danner in 1991 showed that as much as 60% of unsupervised children in a traditional playground are completely sedentary. Fjortoft and Sageie's playground study in 2004 showed a direct positive correlation between the number of natural features (trees, hills, grass, sand, water, et cetera) and the amount of gross motor activity with children, and Fjortoft in 2004 showed increased scores on balance and agility in a natural setting when compared to the same time spent in a traditional playground.

From what our team has observed, the kids that do best on a playstructure are the 'A' type kids. They are the fit, aggressive kings and queens of the castle and the ones most in need of learning about nurturing and collaborative play. In a natural playground, the kids on the sidelines become engaged in social, creative, collaborative, quiet, nurturing, and dramatic activities spread throughout the space. By adding nature to your playground, the 'A' type child naturally calms down and collaborates. The other 60% have an activity that they can excel at while enhancing their gross and fine motor skills at their own pace. The result of a natural setting is better focus in the classroom, better marks on standardised tests (Lieberman & Hoody 1998, Bartosh 2003) and better overall fitness of the student body (Moore et al., 2003, Fjortoft, 2004).

Myth 2: Neat, tidy, and sterile are best.

My father was awarded the Order of Canada for his immunology research and I grew up as the only kid on the block who was regularly told NOT to wash my hands before dinner so that I could build a healthy immune system. Chrysene off-gassing from rubber play surfaces has been shown to increase risks of cancer to three times the acceptable limits (Office of Environmental Health Hazard Assessment, 2007), and the benefit to child development of mud, wet sand, loose parts such as leaves sticks and pine cones (Chancellor, 2007) has been shown to be an effective tool against the symptoms of ADHD (Taylor et al., 2001, 2004, 2009).

Kids need dirt! Dirt is GOOD (Ruebush, 2009)! It is one of the few mediums that allow them to be totally engrossed in an activity to the point where they do not notice they are being supervised. This is the closest many of them will ever get to unsupervised, uninterrupted, outdoor freeplay. Finally, if we

are to have shade, we need a canopy, the best and least expensive canopy is a tree and it will require dirt and water (and even bacteria) to survive.

Myth 3: Natural Playgrounds are not CSA approved.

The Canadian Standards Association (CSA) does not approve or endorse anything. They have created a document called CAN/CSA Z614-07 that is their suggested guideline for the safe installation and use of playstructures. The CSA playground standard writing committee is a body comprised of professionals involved with the design, manufacture, sale, inspection, maintenance, ownership and insurance of playgrounds. One is either compliant with the standard or not. Our natural playground components are compliant with the standard. Any ideas you have may be compliant as well. Simply pick up a copy of the standard, read it, and consider it when installing your natural features.

Remember that the application of the standard is in the hands of the educated opinion of your certified playground safety inspector. So consult with him or her early in the process and see where they stand on natural features. You may want to ask the opinions of more than one inspector before you decide on the one that is most helpful to you in reaching your goals. You are the expert in child development for your students, and they are the expert in the application of the safety standard. It should be possible for you both to win.

Three things to keep in mind:
1. 'Intended use' is an important tenet of the standard;
2. non-compliance can often be overcome through supervision; and
3. 'natural landscape features' are not regulated by the standard unless they encroach into the impact zone of an introduced structure with a fall height.

There are so many more of these myths, but these are the big three. The next hurdle is how to approach the design and installation of your natural playground.

So you want to build a natural playground? Here are a few tips:

Planning is people
Playgrounds should be designed with the people who use them. Form a stakeholders committee and invite parents, children and teachers to be a part of it. Planning, as the great urban planner, Jane Jacobs wrote, needs to be focused on people – the users of the space.

Start with nature
One of our favourite stories on the importance of reconnecting children to nature is from the renowned playground designer, Rusty Keeler. The moment he shifted from designing children's play equipment to working with nature came when he was asked to draw the ideal piece of playground equipment. After spending some time thinking about it, he drew a tree.

We adults tend to complicate things. Start with the simple stuff first…a big log, a boulder, a small hill, some big trees (white pine is a favourite), and add some sand. Add at least five

items in your first push and add more elements as budget allows. The kids will love one item to death…it is better to spread the love.

Add open-ended play
Remember that greater child benefit hinges upon the diversity and interpretive quality of the play elements (Fjortoft & Sageie, 2000, Cosco and Moore, unpublished). A raw log can be a dinosaur, a serpent, a plane, a locomotive, anything the child can imagine but a toy car is a car… and then it gets boring. Install the raw item and then let them figure it out (Chancellor, 2007).

Finish with art and music
Art and music are inclusive. They help to break down barriers presented by age, language, and physical ability while they encourage collaboration and less aggressive behaviour.

Murals, sculpture, bongos, xylophones and chimes are all good places to start. John Dewey said it best in 1932 in his ground breaking book *Art as Experience* 'It is the experience of art that matters'.

From this article, I hope you take away one main thing. This work is not complicated; in fact the opposite is true. If you want to see how many other people are doing this work across the country, simply log onto www.childnature.ca, check out the map of projects and programs, and add yours to the growing list.

Research, experience and most importantly, our children, are telling us that we need to get on with the work of creating the environments where they can connect with nature. Educators, school boards and public park managers are now embracing this fact. The child-nature connection is not a fringe movement any more and it is time for all of us to take our place in the sun.

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