Lessons from Berlin’s school playgrounds

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1 Background

Grounds for Learning is a Scottish charity supporting outdoor learning and play for children and young people. Our aim is to enrich the lives of Scotland’s children by helping them to enjoy the outdoors and connect with nature, become more active, learn and have fun.

Playing and learning in natural outdoor environments is good for children – they’ve been doing it for thousands of years. It stimulates physical activity, promotes creativity and helps develop social skills. It can create an appreciation of the natural world, relieve stress, develop resilience and bring learning to life. And it’s a lot of fun.

While many Scottish children grow up with uninspiring asphalt school playgrounds and limited opportunities for natural play, some of our European neighbours have a different emphasis.

In June 2010, GfL’s Programme Manager, Alastair Seaman, spent 4 days in Berlin touring some of the city’s primary and nursery school playgrounds. This report summarises some of his key observations in the hope that it will help to provoke reflection and debate about Scottish school playgrounds.

With support from Scottish Natural Heritage and funding from Inspiring Scotland, GfL is helping 8 Scottish primary schools to develop some of the approaches contained in this report. A study tour of some of these is planned for autumn 2011. If you are interested in joining this tour, or have any other comments, reflections or questions, GfL would value your feedback.
The strong emphasis on nature and play means that there’s not a great deal of concern or effort expended on making it look tidy. Grass gets worn or grows long and unkempt and weeds are everywhere. Most sites had nettles, brambles and thistles. In Scotland we’d want to keep it looking tidy and worry about children and thorns. In one school we heard of tension with the architect who thought that the ‘untidy’ grounds would detract from the appearance of the building. However, the school was clear that play value for children were more important than showing off the new building.

Weeds grow happily along the edges

Atypical area of natural planting – lots of thistles and weeds
Grass left unmown

Nettles and young children in happy co-existence
Brambles in a kindergarten

Thistles in the flowerbeds and weeds in the yard
It's not grass, it's not sand, it's not surfaced – it's just kind of natural.
2. Places to hide

A Scottish primary school recently ripped out its only bushes because playground supervisors couldn’t see all the children. A key theme of playgrounds in Berlin is space to hide and a philosophy that children need to be away from the active supervision of teachers for part of the day. Planting has been designed to create lots of hidden paths, dens and cover. In some school playgrounds up to 70% of the children are out of view of a supervisor during break time. Supervisors don’t generally circulate and police - they locate themselves at fairly fixed points so that any vulnerable children can stay close, and if there’s any trouble, children know where to find an adult. In answer to the obvious behaviour question, teachers claim that break time behaviour IS BETTER than it was in the old tarmac playgrounds. The Berlin school grounds programme began in part as a response to playground violence - with schools claiming a significant reduction in break time trouble in the new natural spaces.
.... and be found

a path leading to ‘round the back and out of sight’
Willow, weeds and footpaths
3. Sand

Sand is everywhere. ‘Sandpits’ are huge and found in every primary school playground. They don’t look anything like the sandpits we see in the UK – they cover large areas, they’re not covered over and they’re not excessively raked or cleaned – so are often full of leaves and twigs. The general rule is that the sand is removed (for cleaning and re-use) and replaced about every 2 years. Sand is the usual safety surface around play equipment and features, and these areas are always built bespoke on site rather than bought from a catalogue. They are often surrounded by low walls – which can be used as seating - and many have small areas of raised decking for seating around the edge or in the middle.

All school playgrounds have an element of water play. A common pattern is to have a hand pump which feeds water into a channel with the water finally draining into a sand pit or pond. The channels often have a mix of fixed and loose rocks to allow children to change the course of the water and construct small dams and pools. Some have slots for sluice gates to allow damming. Sometimes the source is a playful fountain (such as a snake or a sculpture) rather than a hand pump. Using rainwater for play is a common theme. One school collects rainwater from the roof, stores it in underground tanks and then pumps it to the surface (using solar power) for water play. In this school, rain adds an extra dimension to play rather than restricting it. In another, rainwater from the main surfaced area of the playground is drained into a splash pool – a natural drainage feature that has value for play and nature. Water play is almost always co-operative with groups of pupils working together on building dams, collecting water and operating pumps.

Hand pump and water channel (boulders loose)
Dam builders and dam busters

Water channel (boulders fixed)
Rainwater from the higher part of the playground drains into this play splashpool

Rainwater drains along this channel
.... down the steps

... and into the pond
Lion play feature with fountain at the rear
.... and its water channel

.. .with sluice gates

Snake fountain
5. Rocks and sculpture

Large rocks (up to 6 feet high) are used in various ways. They are often sculpted by pupils (with the support of a local artist) and frequently located in or around sandpits for climbing and jumping. A couple of schools have a tradition of the top year group working together to design and carve a rock sculpture – which is left as their legacy to the school. There is a great variety of artistic themes – one had been carved as a marble run.

Hand carved by pupils
Marble run rock
Croc head
6. Risk

A very different attitude to risk is evident. Playgrounds are designed to create multiple opportunities for ‘good risk’ i.e. risks that can be clearly recognised and assessed. Children jump off 6 foot high rocks into sand with no adults around. Play equipment fall heights are commonly 4 – 6 feet high. Children clamber onto play hut roofs of 6 feet or more without being rebuked. Surfaces are sometimes designed to be uneven and there seems to be a general assumption in favour of risk. Three examples illustrate this. A large boulder pile with a climbing net was a new idea. The insurance company agreed to allow the school to build it and monitor any accidents. After a month of intensive play and no serious accidents, approval was given to keep the new feature. In another school they were just finishing a large climbing structure that included a trampoline at the top. Officials had approved the concept, the structure had been built and the school was waiting final inspection before opening it. In a school that had some children in wheelchairs they had constructed gentle slopes for climbing and rolling down – as well as some wheelchair bumps on the paths. Teachers told us that the new natural playgrounds created a greater number of minor accidents than the old tarmac spaces – but that there were fewer serious accidents.
A 6’ jump into sand. No adults present.

Insurance company wasn’t sure about this new feature – so they monitored for a month and two years later – still no accidents.

Intentional trip hazards
Of course you're allowed
A trampoline on a platform!

Please climb on the roof.
Wheelchair users need risk, challenge and adrenaline too.

A boy tips himself into the sandpit from his wheelchair, crawls to the hammock and then takes 15 mins to haul himself up the slide structure behind.
Fixed play equipment is an important element of every playground. It usually has a rustic feel – and much of it is built from wavy round sections of *Robinia* timber. The most common type is a small hut on stilts with a surrounding structure climb on - often with ropes and a slide. Fall heights of 4 – 6 feet are common. Most playgrounds have slides, commonly wide slides on embankments rather than free standing structures. Some have swings. Most have horizontal bars for spinning round. Balance beams of various kinds are common. All schools had outdoor table tennis tables (in concrete)– and we saw a kind of ‘hand ball table tennis’ played with footballs in a ‘round the clock’ manner. Many schools have good stores of loose play equipment for children to use in break times. Although this is common in Scotland, the range of equipment was greater and included ‘riskier’ equipment such as uni-cycles, trikes and scooters. Some schools have huts and wigwams – which are used as climbing structures as much as dens and shelters.
Made from a checkout belt

Round the clock football table tennis
Concrete croc - for sitting, balancing and jumping
8. Sports

Scottish playgrounds are often dominated by formal sports facilities, most commonly football pitches, with play features being fitted in around the periphery. The playgrounds I visited had done the reverse, designing sports facilities into a backdrop of natural play. Examples of this included: a long jump track leading to a large play sandpit, a sprint track along the school boundary, a blaze football pitch with trees as goal posts and small areas of rubberised surface with a basketball hoop. Some schools (not all) had dedicated football spaces but these tended to be MUGA or similar fenced areas rather than full-size pitches.

Tree goals
Sprint track along the boundary
Long jump into the sandpit

Football and basket ball designed into a backdrop of natural play
9. Diffuse play

Scottish playgrounds are often dominated by a couple of activities, generally football, tig and standing around. Watching playtimes in Berlin I was struck by how diffuse and distributed the play is. There are more, smaller groups engaged in a much wider range of play activities and making more use of the whole outdoor space. I was struck by how there were opportunities for more children to lead and achieve in their play space and play time than would be the case in a typical Scottish school.

‘is that a school?’
10. Topography and tunnels

All playgrounds have been re-profiled to introduce slopes and dips, creating spaces that stimulate running around and running up and down. Slopes are enhanced with slides, boulder fields, water pumps and channels – and almost all schools have tunnels through a man-made hill. Some have boulder ‘cliffs’, creating opportunities to climb as well as jump. Often these slopes help to enclose a seating area.

Nice example of the ‘not very neat principle’
Building wide slides into the slopes with a boulder scramble climb

Water play on mound.

Bridge across a valley
11. Drainage and surfaces.

Berlin has a drier climate than Scotland and so irrigating grass and plants in dry weather is more of an issue than preventing mud (so we have a comparative advantage in Scotland in that it’s easier and cheaper for us to establish and maintain grass and planting). Grass is often pretty patchy and unkempt. Sometimes parts of the playgrounds are fenced off temporarily to allow the grass and plants to recover from wear and tear.

Designers have clearly given thought to drainage and avoiding problems with mud. This is partly encouraged by a Berlin tax on water entering the public drainage system – which encourages natural, on-site drainage. Design approaches include: lots of use of sand around areas of fixed play equipment, ‘hollow brick’ type paving, with sandy earth in the brick holes supporting grass and weeds where foot pressure allowed & surfacing made up of a mix of gravel, sand and bark. The main type of impermeable surface is small cobbles – and in some cases this is drained to splash pool / soakaways.
Common surface types. Sandy soil in holes – with weeds growing in areas of lower use
Bark / sand / gravel mix – smelled like being in the forest!

Surface material and design significantly impacts the tone and feel of the playground.
12. Learning

I didn’t observe significant use of the grounds for learning during class time – the one example being a teacher using an outdoor stage for drama and dance. When I asked about this I was generally told that grounds were important for class-based learning. However I sensed that play was viewed as a highly important part of learning – giving children opportunities to learn and explore without structured adult support.

13. Community

Some schools give access to the grounds for play out of school time. One had a lovely bespoke sheltered area where we saw a number of parents sitting chatting for an hour after school while their children played. They had come armed with juice and cake (which they shared with us!). The same school had got hold of two old trams and built a platform to put them beside. Their plan was to rig a canopy to the trams and create a cafe to encourage parents to hang around and socialise after dropping off or collecting their children. Most schools had stories of parents being involved in maintaining the sites. One pays a parent 5,000 Euro a year to organise regular community work days on weekends – when up to 100 parents and children turn up for a day to do some maintenance work and enjoy a barbeque or picnic together.
Plans for a canopy and cafe for parents in these re-cycled trams.
14. Design

It’s so obvious that you can miss it – Berlin’s school playgrounds have been designed for play by experienced play designers (almost unheard of in Scotland). All of these playgrounds had a comprehensive planning and design process with extensive consultation with pupils and staff, which was then developed by a landscape designer into a comprehensive, holistic and detailed design. In most cases pupils and parents were involved in some aspects of the original work – as well as ongoing smaller projects (such as planting, wall building, sculptures etc.)

This gives a very different result from the typical Scottish school, where parents raise small sums of money and make small scale ad hoc improvements, often without having a co-ordinated plan.

This isn’t surprising given that budgets for Berlin schools were typically 150K – 250k Euros – but it does highlight the gains that can be made from engaging a professional play designer and the general absence of this approach in Scotland.
13. Other interesting features

This school was near the zoo – pupils called this entrance ‘the gate to paradise’

This is the paradise they were entering (their playground)
Fruit tree avenue

Old pipes planted along boundary
Shed and loft – a perfect place to doze

Trademark Berlin boundary walls and willow planting
Trademark boundary wall with seat

Salvaging timber for house construction (in an outdoor after schools club)
House construction – sheds are ‘rented’ for a month by children who can alter them as they please.

Children ‘rent’ a garden space for a year
Photos to show who’s in charge of which plot

Muddy kids? Stick them under the snake shower
A beautiful bespoke play shelter