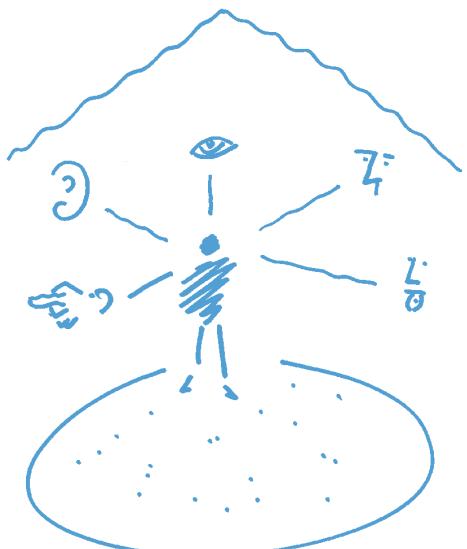
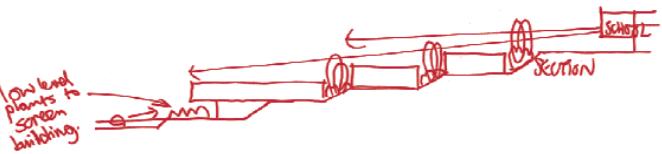
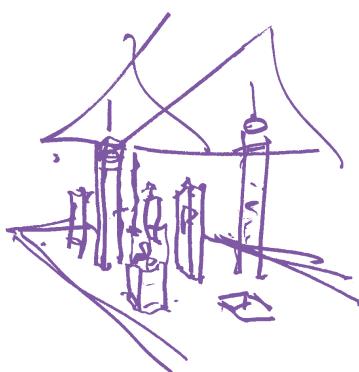
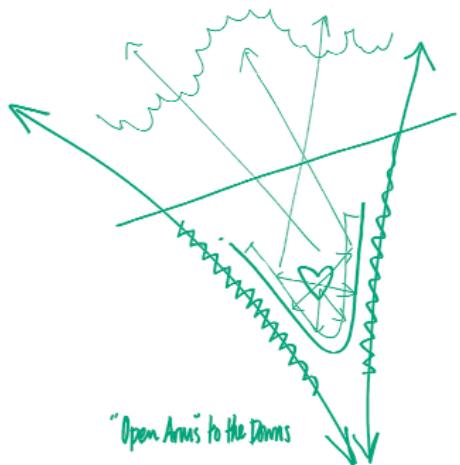


# Senses of Place

Designing Scotland's  
Future Schools



*the sense of place*



## Introduction

Education is a hot topic. It is not simply about what is taught or how it is taught, it is also about different ways to enhance the learning experience.

While there is broad agreement that design is hugely powerful in motivating both teachers and children, a question mark still remains on the best way to achieve this.

Should you put consumers in the driving seat and give them the control and responsibility as clients, or do architects still know best? Clients also need to have a say: current investment in schools in Scotland is at its highest ever level, which is resulting in the largest ever school building programme. While the amount of available cash runs into the billions, clients – from the government down to local authorities – need assurance that they are getting value for money.

Crude cost-cutting ends up benefiting no one, but as long as they are accompanied by a bit of free thinking, tight budgets can still result in some exemplary spaces.

Contributors to the *Senses of Place* conference, which brings together local authorities, teachers and architects, with different experiences and knowledge to share, all agree that it's not simply the classrooms and assembly halls that matter. It is also important to consider those forgotten spaces such as the corridors where pupils can spend up to 20% of their school day.

Outdoor areas, particularly playgrounds, also emerge as an important but too often forgotten school area. When children are asked what would make the most impact on their school, "social spaces" is the most popular answer. They want places in which they feel secure, but which also belong to them.

The recognition that children can make a valid contribution to the design process is just one of the issues *Senses of Place* focuses on, which will hopefully inform discussion and practice in the future.

**Amanda Baillieu**  
Editor, Building Design

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# Playing it too safe? Aspiring to better playground design

**Theresa Casey**  
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Children tell us that the playground is really important to them. It colours their whole experience of school.

The playground provides the natural arena for crucial social experiences such as forming friendships, negotiating relationships and dealing with conflicts. For children with disabilities or additional support needs in particular, what happens during play (whether they feel accepted and welcomed by peers) significantly impacts on their experience of inclusion in schools<sup>1</sup>.

We know that play brings a whole raft of benefits to children in all areas of their well-being, health and development, including of course the opportunity for physical activity. (Playing provides more physical activity than most other activities<sup>2</sup>). Children with the opportunity to play during the school day are more likely to feel lively, alert and positive.

The playground is not just a transitional space or an area to release excess energy; it is hugely important to:

- children's disposition towards school and the activities within it<sup>3</sup>;
- children's sense of self and identity;
- the identity and ethos of the school.

It may seem surprising that such an important area has been so overlooked, including in design terms. We might ask: by playing it safe with playground design are we actually restricting the very things that we hope will be happening in schools?

In some ways it is understandable. Playtime in schools is the time within the school day that is seen as under the children's own control. It is the time in which children do their own thing – baffling to adult onlookers – and, for the most part, is free from adult agendas, belonging more to the world of a children's 'counter culture'.

However, as the school estate is being improved, we are realising that schools are only truly fit-for-purpose if they provide space conducive to children's play – play that is free, imaginative, physical, creative, adventurous and social, providing for those positive experiences that will enable children to enjoy and fully participate in school life.

The classroom is not the only site for learning in a school. The learning that takes place during play is that which is driven by the children themselves.

## Making better use of existing knowledge and research

In recent years there has been significant progress in understanding the kind of environments that support children's play and therefore allow the kind of benefits to children described above (see 'useful information').

While there have always been forward-thinking teachers and educators who have led the way by making and using great spaces for children in schools, less progress has been made in translating this knowledge, or those examples, into general practice and design.

General advice suggests the need for school grounds to be designed in a simple and flexible way 'to allow for further design and development by the school community in response to evolving needs', (*Building Our Future: Scotland's School Estate*) which is a good principle from which to start.

Over-designing a play space can be as big a problem as ignoring it all together. To children, a degree of unfinished messiness offers more possibilities than a polished design. A play space needs to invite children to interact with it.

## Characteristics of an inclusive play environment

The Play Inclusive (P.inC) Action Research Project made suggestions for inclusive design for play from its work in Scottish Primary Schools, identifying the following characteristics as key features: flexibility; shelter; centres of interest; natural features; atmosphere<sup>4</sup>.

These are all features that can be incorporated into existing playgrounds or become part of new designs. The following features should also be added to this list: sensory elements; accessibility; risk and challenge; continuity between indoors and out<sup>5</sup>.



The benefit of risk and challenge in play is particularly topical at the moment as the Commissioner for Children and Young People in Scotland has recently announced her intention to focus on the issue of 'Promoting Proportionate Protection' as a key policy area for the next two years, the aim being to 'achieve a better balance between child protection and fun, adventure and healthy relationships.'

Along with the Health and Safety Executive-endorsed statement on managing risk in play (see 'useful information') this could help to shift us away from the often bland and inappropriate design that has resulted from the fear of accidents and litigation.

## Becoming more aspirational

Children's involvement in the design process and also in ongoing interaction with the environment should be part of the process (tying in with agendas such as physical and mental wellbeing, inclusion, environment, citizenship etc). Giving recognition at a high level to those who are getting it right would also help. We need to break the habit of thinking of the school as 'the building', reducing the outdoor space to an adjunct.

A great step forward for designers and architects, for schools and for children would be to build the expectation that our school grounds in Scotland should be as good as anywhere in the world – indeed, they should be outstanding, innovative and something to be proud of on an international level.

## Useful information

**Best Play – what play provision should do for children.**  
(Children's Play Council 2000). Download from [www.ncb.org.uk](http://www.ncb.org.uk)

**Developing Accessible Play Space, A Good Practice Guide.**  
Office of the Deputy Prime Minister (2004)  
Available from 0870 1226 236 or [www.odpm.gov.uk](http://www.odpm.gov.uk)

**The Play Inclusive (P.inC) handbook and research report.**  
Download from  
[http://www.betterbehaviourscotland.gov.uk/knowledge/school\\_community/research/section1/default.aspx](http://www.betterbehaviourscotland.gov.uk/knowledge/school_community/research/section1/default.aspx)  
or contact [susan@syac.org.uk](mailto:susan@syac.org.uk)

**Managing risk in play provision: a position statement.**  
Children's Play Council. Play Safety Forum (2002)  
Download from [www.ncb.org.uk](http://www.ncb.org.uk) (Health & Safety Executive endorsed statement)

**Play Scotland** – the national body for play in Scotland, provides access to information and expertise, 0131 440 9070 [www.playscotland.org](http://www.playscotland.org)

1 Casey, T. (2004) Inspiring Inclusive Play. P.inC/The Yard.  
2 Mackett, R. (2004) Making children's lives more active. University College London.  
3 Pellegrini, A and Blatchford, P (2002) Time for a break: the developmental and educational significance of break time in school. *The Psychologist*, 15, 2, pp60-62.  
4 Casey T. (2004) Inspiring Inclusive Play. P.inC/The Yard, 2004.  
5 Casey, T. (2005) Inclusive Play, Practical Strategies for working with children aged 3-8. Paul Chapman/SAGE publishing.

# Future Learning and Teaching Project: Sir E Scott School, Harris, Western Isles

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The Future Learning and Teaching Project is facilitated by The Lighthouse, Glasgow and funded by the Scottish Executive. For the past three years stakeholders involved in the practice and process of school design have been brought together to improve the quality of learning environments throughout Scotland.

## Creating a sense of place. Cultural and Contextual Dimensions in a rural school landscape.

For two years I have been working with Anne Cunningham of The Lighthouse and the pupils and staff of Sir E Scott School, Tarbert. During this period we have undertaken a journey of discovery to find new meaning in the landscape of Harris, and translate this into the creation and articulation of a new external space for learning.

## Cultural and Environmental Context

The landscape of Harris is characterised by high mountains (in the North) and large tracts of stark rockscape (in the South). These contrasting environments are linked and fringed by the unique scenery of fertile 'Machair' lands and breathtaking expanses of white sand beaches. Throughout Harris the relationship with the sea provides a distinctive history and natural environment.

Sir E Scott School has an unparalleled environmental location, at the interface of sea and mountain. The word 'Tarbert' comes from the Gaelic 'tairbeart' meaning draw-boat. In history, here, as in other locations throughout Scotland, Long Ships were pulled over the landmass from one water body to another.

Insights to the past can provide designers with a starting point for their own conceptual thinking. We found that by uncovering meaning in the cultural interpretation of the Island we elevated curiosity in the minds of the children and encouraged their enthusiasm. It became our quest to decipher and 'read' the landscape, thus fully appreciating what we 'had', before thinking about what the landscape could 'become'.



Collecting moments with mirrors

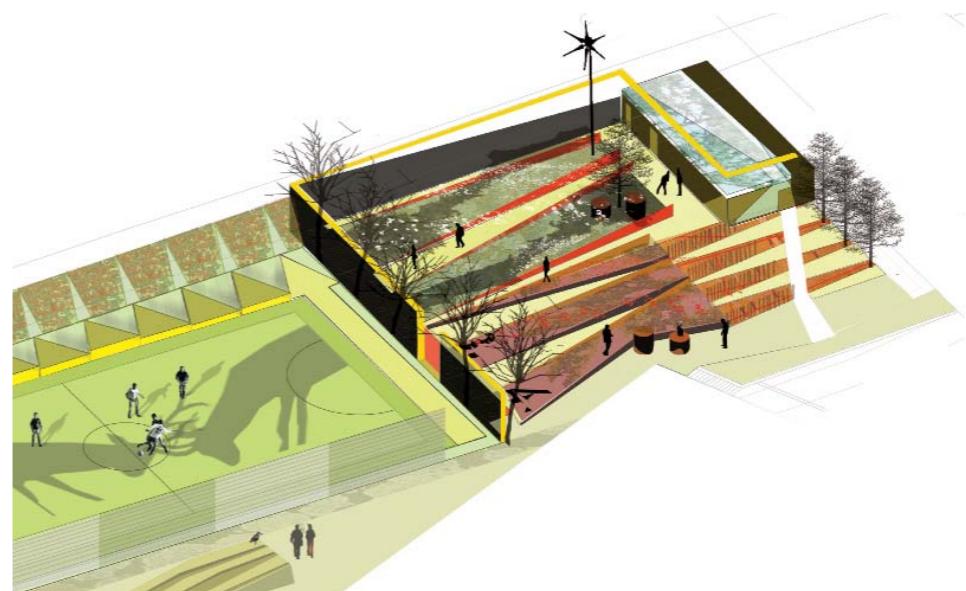
## Participation

In order to understand the inherent composition of Harris's terrain and create an inspiring and useful space, we employed an open and at times speculative method of pupil participation.

Our aim was to learn from the children, but in order to do so we first had to use the consultative process to awaken their dormant understanding of man's relationship with nature.

## Reconnecting – Disconnection

In the early stages of participation it became evident that unless playing football, children spent little time outdoors and had essentially disconnected from their school grounds and the landscape beyond. We realised that although the children had disengaged from their environment they were still enchanted by its 'story'.



Rather than employing typical consultative methods we cast them aside in favour of exercises attuned to exploring the history and present function of the landscape. We attempted to balance the consultation by working with the visible and invisible context of the school. We asked the pupils to explore their curiosity and collect chronicles from parents, carers, neighbours and locals. They returned with fascinating tales of the island and its people and together we translated their findings into new stories and illustrations that could be embedded in ideas for the school's new landscape. As a result of us 'learning from them' we were able to foster a sense of confidence in the children that opened minds and strove for innovation and possibility. At times our approach meant that planning and rigour in the structure of the consultation was ineffective, as carefully considered plans tended to unravel as the day progressed. As a result we learnt, rather, to make frequent and responsive shifts in the line of enquiry in order to respond to communicated thoughts, issues and feelings – a skill that requires both nerve and energy!

## Taking Inventory

During a number of participative workshops we took the children out to the edges of the island to take an inventory of landscape resources and encourage their reconnection with the outdoors. We measured, collected, shouted and danced. We avoided dead seals brought in by the storm. We used mirrors to collect moments, empty squares to assemble 'contrasts' and even luminous dust to trace historical lines, eroded to invisibility with time. Back in the classroom we reflected upon our findings, digging deep to decipher relationships and translate details into a new language for design.

## Translation

In this project the evolution of design thinking became as much about 'translation' as 'creation'. Upon the identification

of a strong relationship or pivotal moment in the landscapes evolution, we attempted to 'anchor' this down into the articulation of spaces in the plan and their 3 dimensional reality. Just as scientists and artists reveal processes invisible to the naked eye, we encouraged the children to translate their findings back to us. The potential exists for children to explore their own cultural traditions (rooted in the landscape), improve a sense of citizenship and initiate research and understanding.

## Dissemination

In association with the children we have attempted to evolve a unique and tailored design response. In this special place the interplay between human initiative and geographical reality requires commitment and pragmatism. Despite the distinctive circumstances of the project location, there are many lessons to take forward, even into the contrasting realm of urban playgrounds.

Every school environment has a context, a potential interlacing of ecosystems and a history to be explored and understood. We viewed external space as a creative stage set for activity, play and learning rather than a neutral background upon which to arrange architectural objects. Our intention was to develop a binding and unifying framework, a place for transformation and a space that shifts with the seasons and cycles of production and energy. This does not mean abandoning precision but rather employing mechanisms to draw on and take advantage of the forces of nature as a formative tool.

The proposals are intended to be robust and flexible, a contrast to the desire for high impact, instant and heavy maintenance solutions. Relationships exist between man and nature in the playgrounds of the towns and cities of Scotland just as they exist in the rural landscape of Harris. With imagination these underestimated learning spaces can be set free for exploration.

# The real cost of surface and place

**Peter Richardson**  
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Today most schools are procured through processes that reward standard (ORDINARY), cost economy (CHEAP) and early delivery (FAST) solutions. This is not a new phenomenon: the competition brief for the Glasgow School of Art in 1897 specified precise cost yardsticks and delivery as key criteria for assessment, yet what resulted at that time was an extraordinary design full of invention, and an imaginative approach to the use of widely available cheap materials; steel, brick, concrete and off-sawn timber.

Innovation is an overused term. Unfortunately, within the system of output criteria used in PPP Schools briefing, innovation is expected and implied but often left for the Project Team to define and deliver.

Within the Schools Design, we should be looking beyond the criteria of compliance yardsticks when selecting and designing materials, by embracing the complexities of recent changes in building legislation and standards laid down by the British Research Establishment and by technology.

Research into modern theories behind quality teaching and learning environments means that there are many issues to consider when looking at material specifications. For example, poor acoustics can have a profound effect on the ability of children to learn and absorb knowledge. How often are acoustic criteria tested in the classroom in Scotland?

What is clear is that stimulating, well-designed quality environments create stimulating places for learning. This is a premise that has not changed for centuries. The materials selected form an important part of any quality environment, and designers have a duty to ensure that the materials they use are fit to perform well for 30 years.

Significant developments have been made by some manufacturers, such as Ecophon (producing ceiling tiles made from recycled glass), who have pushed research and development as part of their business strategy. There are products on the market that raise the standards of responsive and qualitative performance for schools. It is a subject that requires broader debate and something that we have to get right.



# Thinking outside the box – Learning outside the classroom

**Gary D Johnson**  
Projects Director, Gareth Hoskins Architects

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Loris Malaguzzi (1920-1994) founded and directed the remarkable Reggio Emilia Centre of early childhood education in the northern region of Italy called Reggio Romana. International interest in the Reggio Emilia approach was sparked when *Time* magazine identified it as amongst the top ten centres of educational excellence. While his approach is primarily aimed at preschool education it is interesting to reflect on his views regarding the influence of the school environment.

**What children learn does not follow as an automatic result from what is taught. Rather, it is in a large part due to the children's own doing as a consequence of their activities and our resources.**

(Malaguzzi, 1993, p.59).

The child's learning resources he refers to include a rich and complex network of relationships and interactions with the adults around them, the peer group and an 'amiable' learning environment.

As architects it is our responsibility to create this 'amiable' learning environment. Traditionally schools have been little more than a collection of classrooms linked by the ubiquitous institutional corridor. Even now a worryingly large number of schools currently being built follow this model.

New schools need to be broken down in scale. They need flexible learning spaces, using new technology to allow a wide range of teaching. The traditional circulation plan should be rethought, with maximum learning use made of what circulation areas must remain.

Contrary to common practice, we must take the spirit of the brief and the educational philosophy, not the schedule of accommodation, as the starting point. We need to explore how non-teaching areas can be designed to create environments more conducive to creativity and learning.



# The Community School of Auchterarder: artists' impact on school design

**Juliet Dean**  
Director, PACE

[www.paceprojects.org](http://www.paceprojects.org)

In January 2001, four artists were appointed by arts agency PACE on behalf of Perth and Kinross Council to work with the design team on the internal and external spaces of the new Community School of Auchterarder. The artists were brought into the project to add a new dimension. Their role was not to create pictures for the walls or sculptures in the playground areas, but rather to explore new ways of creating a school environment which would be functional and practical, and at the same time imaginative, thought provoking and less institutional.

Crucially, there was a well funded development phase (SAC arts lottery and RSA Art and Architecture) which enabled the artists to work collaboratively with the architects Anderson Bell + Christie, PACE and the school through workshops, meetings and exhibitions.

One of the areas which has most influenced school design is the primary school playground. Artist Susie Hunter developed the overall design, which was based on the concept of stimulating and encouraging children to use their imagination freely. The playground is an open flexible space designed on different levels connected together by steps (which also combine as seats) and ramps. There is ample space for the children to run around and there are also different areas of interest such as a wooden decked stage area, a 'house' structure made of cast concrete with grooves, windows, steps and niches for climbing, jumping and hiding; an area for gardening, speaking tubes; and a series of moguls or mini hills which allow the children to experiment with scale. Plenty of seating opportunities have been provided around the trees and along the stage for quieter groups to gather.

Different textures have been introduced; as well as the cast concrete and wooden decking previously mentioned, the rest of the playground is surfaced almost entirely in coloured rubber playtop, a very forgiving surface.

Susie went on to design elements of the other playgrounds including colourful seating based on the design of the 'house' structure and pod-like shelters for nursery children to interact with.

Elsewhere in the school campus, the artists have responded strongly to the theme of a sense of place. Auchterarder is situated in rural Perthshire next to Gleneagles, surrounded by hills, valleys and fields with rivers meandering through them.

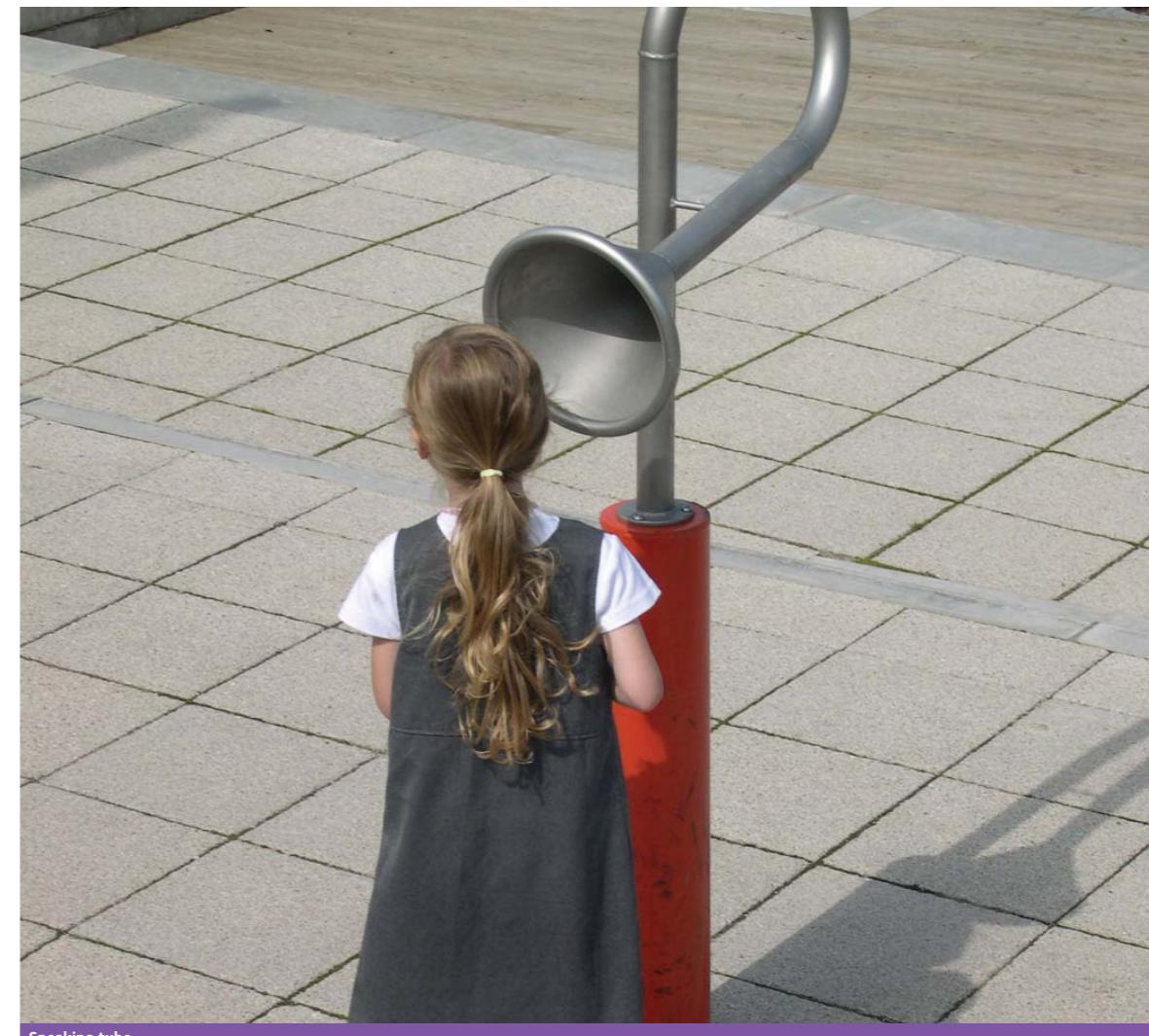
For the secondary school playground, Gordon Young has created a 70m long typographical footpath based on a section of a map of Scotland. *Road to the Isles* is a geographical list or 'poem' of the forests, lochs, rivers, glens, valleys, towns, roads and mountains that can be plotted in a straight line from the school all the way to the Summer Isles in the north west of Scotland.

**Made from bands of coloured concrete (many from locally sourced sands) and stainless steel text, each category is colour coded e.g. light blue for the lochs and red for the roads.**

In the main body of the space, the geographical theme further develops with the siting of benches, each named after an island off the west coast of Scotland and arranged according to their geographical location; pupils and the public can enjoy sitting on Eigg and Muck and jumping from Harris to the Isle of Lewis.



Cartwheeling over Ledgowan Forest



Speaking tube

This impressive and striking 'walk of art' is also a social and learning space for children; teachers are using the path to stimulate discussion on ecology, geography, history and arts.

Inside the secondary school, Samantha Clark has integrated work into the floors and walls of the main circulation routes. Inspired by the maps of local hills, *Lie of the Land* consists of routed plywood panels set into the secondary school's entrance foyer. The incised lines show the intricate pattern of contour lines from the hills and glens surrounding Auchterarder.

*Catchment* takes the river system of the local area and plots it through the school in the form of a flooring design in linoleum which runs the full length of the ground floor of the school. The river branches off into tributaries which run through secondary corridors and under walls and doors. The floor can be viewed spectacularly from the first floor balconies. These works anchor the school in its geographical area and bring the external environment into the interior of the building.

Another area of school design which has had a significant influence from artists has been signage. Most local authority schools bear the authority's corporate signage. In this case, the authority agreed to commission graphic designer Lucy Richards to create a new visual identity and logo for the school, which has been used in signage throughout the campus and in way-marking such as graphics on walls and doors.

Clear, contemporary and intelligible, the signage and way-marking is in tune with the aesthetics of the buildings and landscape, and communicates that the school is united as a campus but also incorporates the different elements of nursery, primary, secondary and community.

The move away from an institutional approach to signage to a fresh and contemporary approach reflects the changes in education provision for the community and can be used as an example for future community schools.

# Do 21st Century schoolchildren dream of digital chalk?

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When we talk about future schools we still, often, fall into the trap of considering current technology or, at best, the technology that is just around the corner. One thing can be sure of technology's development. When you've seen the 'next big thing', another two or three 'big things' have already been invented and are on the road to production. The rate of change of technology, Moore's Law, sometimes discourages us from considering the impact that technology may have in terms of influencing our future designs of space. We still manage to consider construction techniques that result in very effective Faraday Cages being designed and built, even though we are immersed in a booming, wireless communications era.

So, should we try and outguess the future? Will the technology leaders ever allow themselves to disclose their most closely guarded secrets? And, even if they did, would their predictions be reliable enough to allow us to plan future schools with confidence?

What might be a more reliable approach, a better guide for us, is to examine what is becoming the most natural environment for younger audiences. Not only how immersive their entertainment experiences have become but also how they use space and time. How they have adopted technology within their social circle and use it to manage and maintain that social circle. Perhaps we need to understand better how 'leisure time' has been transformed in the last 2-3 decades. The competition for a school child's attention has never been greater.

At the same time as school children are embracing diverse technology we find that technology in the school is still often viewed as an elitist adjunct to 'normal' learning and teaching. In Further and Higher Education we are already witnessing significant rethinks and deployments of technology to cater for the new generation of students. These students are arriving at institutions, mildly surprised that often these are in no way geared to support the communications and distribution of content that they expect. There are some notable exceptions, of course.

Sometimes the very fabric of an institution can be an obstacle to the adoption of a more modern regime. This scenario is forcing people to reconsider the definition of their campus,

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forcing them to extend their traditional services well beyond the architectural confines of their physical, institutional presence. In this context, the Scottish Schools Digital Network (SSDN) is the first step in the technical fabric that has the potential to transform Scottish schoolchildren's educational experience.

We don't believe that technology can remain an elitist adjunct or an occasional indulgence. It would be an uncomfortable oversight to overlook technology, or its adoption by the audience for whom we are providing future schooling, in the design of future schools.

Just as the motor industry has silently transformed the daily driving experience, we expect that the transformation of future schools may consist of a number of discrete, careful steps. One institution that has stepped forward with a strong concept of its future school experience is Islay High School.

Islay High School (IHS) is a 'bog standard' comprehensive according to most criteria. The roll is 260, taken from the islands of Islay and Jura. Jura is classified as a 'community on the edge' by the EU. The building has evolved from the 18th century with many add-ons. Some exceptions to this 'bog standard' classification are the school's location, and the teacher profile.

**Islay High School is located off the West Coast, as far south as you can go, and there is no computing teacher. Both of these facts have meant that ICT has become an essential.**

In the past, the location of the school meant isolation. Isolation from resources; a two-night trip to go to the science centre or The Lighthouse would take place at a great deal of time, effort and expense. Now we can look up the resources on the internet, or work with a designer from The Lighthouse via video conference. This facility does not replace the experience of the trip, but rather builds on it. Having no computing teacher has meant that we have had to embed the ICT curriculum throughout the school and across the curriculum.



Both of these facts, on the face of it, seem like negatives, but in reality they have proved to be, generally, positive. So much so that Islay started asking, 'What else can we do?'

Working with Microsoft and Dell, we pursued this question. As a result, Islay is moving into the future with a fantastic new project that will roll out over the next two years: each pupil is to have full access to their own small PC (UMPC) and, therefore, full access to their own curriculum via a wireless network. That curriculum will be accessible by each pupil in their own learning style. Visual and kinaesthetic preferences will be accommodated with videos, those who prefer audio will listen to the description, and reading and writing will still be available in the usual way.

ICT closes the digital divide, allowing the creation of a personal learning plan, and creating a 'learn anywhere, learn anytime' culture. It is no longer just a value added to the curriculum, but an essential method for delivering that curriculum, providing pupils with skills for the future, and allowing the local economy to develop new ways of working and growing.

## Case Studies

**Compiled by Kate Hendry**  
**Sust. The Lighthouse on Sustainability**

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### Elgin High School

"This project was an interesting, confusing and satisfying one: to design toilets for the students of Elgin High School, with them assessing and advising as the design process went along. It's quite normal for this role to be taken on by a client, but often the fee paying client in a project is NOT the end user, so you have very strict and clear criteria, usually based around cost and space.

Each stage of the project showed up assumptions of mine, revealed surprising priorities on the part of the students, and brought in new criteria to add to the brief, which was being created by students, staff and myself.

The overriding priority was cleanliness, and to cater for this we decided on robustness of materials and the creation of spaces that would be easy to clean. There were however, many other criteria to do with issues such as social ease, bullying, and the regularity of cleaning and monitoring. We ended up with a design drawn on paper, plus a long list of suggestions, which covered not only physical design but also maintenance and management of the spaces.

It can be argued that the social and organisational aspects of life are part of any design solution. Design can be far more than just working out a physical solution; it can also involve working out the social circumstances which must be maintained in order for that physical solution to work".

Katty Barac, One Foot Taller



### Calder Primary School

Calder Primary School is housed in a beautiful red sandstone building, surrounded by a tarmac playground, beside the former Ravenscraig steelworks in Motherwell. An old dining hall was demolished, leaving a derelict piece of land which we decided to turn into a school garden as part of our school grounds development.

We held a competition to design the garden and the winning, low maintenance design, was given to Tarmac Northern, our partners in Enterprise, who created the garden, and who maintain it for us! In addition to this the playground was sectioned into zones for different age groups and a mural, depicting the four seasons, was painted on the school wall. This was again the result of a competition. Games were also painted on the playground surface.

Since the garden was built, we have extended it into the playground, by adding plant tubs and also picnic benches for packed lunches or games. The Garden Gang work with a classroom assistant at Golden Time to keep the garden tidy and weed free. An infant class will plant out the tubs this year for their annual enterprise topic.

The children love to play in the garden and it is also used for curricular purposes – art lessons, science, health and enterprise. We will continue to develop our grounds, adding more equipment, and extending the use of the garden and grounds for teaching purposes.



### Room 13

The centre of the Room 13 project is the art studio in Room 13, Caol Primary School, Fort William, where the project began in the early 1990s. Slowly and organically, Room 13 has grown into a flourishing organisation. Currently there are eleven Room 13 studios based in schools around the UK and as far afield as Katmandu and Mumbai.

Room 13 is open to everyone throughout the school day. Students are welcome to visit as often as they wish and stay for as long as they want. The only criteria are that they must negotiate their time off with their teacher and ensure that all class work is up to date.

Each Room 13 studio has its own 'Artist in Residence', who is based in the studio full time. Working with a professional artist, students have the opportunity to develop a variety of skills including drawing, painting, 3D modelling, photography and new media. Students from Room 13 regularly hold exhibitions of their work in the Room 13 gallery, and have exhibited their work in public galleries in the UK and internationally.

Within each individual school, the Room 13 studio is organised and run completely independently by the students themselves. Each year, a management team is elected from primary 5, 6 & 7 and it is their job to look after the running of their studio and the organisation of events. They also keep track of the finances in their own studio's bank account and are fully responsible for paying the Artist in Residence's wages.





## Forest School

In September 2004, staff from Forestry Commission Scotland and Falla Hill Primary School in Fauldhouse, West Lothian started a Forest School with 26 children from primary 6/7. This was the start of a commitment to take the class out into the woods every Wednesday for the full school year.

Forest School offers the children regular opportunities for hands-on learning in an outdoor setting, which helps to develop confidence and self-esteem as well as a practical understanding of environment and sustainability issues.

Teachers are delighted at the breadth of curriculum covered without the children even noticing that they are learning. Positive changes in the children's attitudes and behaviour have been noted by teachers and parents alike, just as a result of allowing children to explore, express themselves and grow in the natural, informal and safe woodland setting. Pupil diaries are helping the children to reflect on their own learning.

Forest School has been running in Scotland since 2003 and more than 20 Forest Schools have been set up. The Forest Schools programme forms a significant part of the Forestry Commission's Forest Education Initiative. The initiative aims to increase the understanding and appreciation among young people of the environmental, social and economic potential of trees, woodlands and forests.



## Royal School of Dunkeld

The outdoor learning environment at the Royal School of Dunkeld is made up of several 'garden areas' which are all quite different from each other.

Balfour's garden is a wild garden with a pond and a managed habitat of native shrubs, trees and herbaceous plants. It serves as a quiet place for children to retreat from the hurly burly of the playground, and also as an environmental studies resource.

The Den-Building Garden is a garden with a difference. It is an area fenced off within the playground, in the shade of some birch trees. Branches and trimmings from the school grounds, from parents and from local businesses are put into the garden. This waste material, which would normally have ended up on a bonfire, is used by the children to build dens and other structures. Not only is the play value tremendous, the children also learn how to work together in safety and, on occasion, how to resolve conflict and differences of opinion.

The outdoor classroom in the south-west corner of the school grounds was constructed with the help of a grant from the Scottish Millennium Forest Trust. This space provides a seating and performance area for the entire school and is a very popular play area for all ages. Further areas of the school grounds have been developed into a Vegetable Garden, a Butterfly Garden and a Wild Flower Garden.



## Children's House Nursery School

"It is interesting to note that for Froebel, McMillan and Isaacs, it was the child's free play in the garden which led to their greatest contributions to the early childhood educational curriculum" – Tina Bruce, Time to Play in Early Childhood Education.

Children's House Nursery School is a free-standing, purpose built nursery school in the Niddrie/Craigmillar area of Edinburgh. The nursery was purpose built in 1935 when pioneers in nursery education placed equal value on indoor and outdoor learning. This continues to be central to the philosophy at Children's House. The outdoor area has been developed over the years and the children, staff and parents learn outdoors everyday. All areas of the curriculum 3–5 and the four capacities of the Curriculum for Excellence can be accessed outdoors at Children's House.

Children, staff and parents experience all weathers and are able to learn about seasonal change and the beauty that each season brings. They plant, tend and harvest vegetables, herbs and fruit that are used in the snack area and in parents' cookery classes. Fruit and vegetable waste is composted and used in the vegetable plot. The apple, pear and plum trees yield an abundance of fruit that is used to make jams, jellies and in baking.

Bushes to hide in, trees to climb, a log pile that is home to a variety of creatures and a digging area; all these provide an abundance of first hand learning experiences.

The sensory garden, a particular favourite with children with additional needs, provides opportunities to smell, taste and touch a variety of plants. It is an area where children enjoy sitting and relaxing. Children can paint, dance, make music, read books, play imaginatively and freely, develop confidence in their own abilities to climb, run, jump, balance and swing. A variety of activities are planned and resourced daily by the staff who are there to support children's learning outdoors as they would indoors.



## Hazelwood School

Hazelwood School is located on the edge of Bellahouston Park in the Drumbreck area of Glasgow. This new school has been designed by GM+AD Architects, and when it opens in 2007 it will provide a learning environment for 52 children with complex and dual sensory impairment.

The school building has been sensitively integrated into the parkland site. A number of large birch and mature lime trees have been maintained, and will provide the basis for the new gardens, teaching spaces and outdoor play areas. The outdoor environment has been designed so that the children will be safe and secure but at the same time maintain a sense of independence.

Inside the school further steps have been taken to maximise opportunities for independence. Traditional corridors have been replaced with spacious internal streets. The streets have been created with areas specifically designed to provide sensory and tactile clues to help the children to locate themselves within their immediate environment. The main corridor's interior wall has been lined with cork, so that sight-impaired pupils will be able to run their hands along it to help them navigate. In addition to this, there will be a raised strata on the wall, to help guide children to their classes. Throughout the building, floor coverings are in plain neutral colours, because coloured patterns can appear as holes in the ground to the visually impaired. In addition, different textures have been introduced, to indicate to the children when they are stepping over a threshold.



# Consultation and communication in the context of a schools' PPP project

Gordon Currie

PPP Project Manager, East Dunbartonshire Council

[www.eastdunbarton.gov.uk/ppp](http://www.eastdunbarton.gov.uk/ppp)

East Dunbartonshire Council (EDC) was awarded £100m indicative funding from the Scottish Executive to commence the regeneration of its school estate through a Public Private Partnership (PPP) process. As a procurement vehicle, it is well documented that PPP is not without its critics; the architectural and educational communities 'lead the charge' on the thorny issue of design. Recognising this perception, EDC decided to challenge the conventions of the procurement process and place significant focus on design quality in our Invitation to Negotiate (ITN). Ultimately, the measure of success achieved in realising this aspiration will only be measured when the preferred bidder's designs are locked-down within an acceptable affordability envelope.

An imperative in designing the brief was to involve key stakeholders in the development process. A significant factor in the approach adopted was that consultation and communication had to be linked inextricably; to respond to those who supply information is as important as its harvesting. However, a health warning must be noted at this stage; it is essential to manage the expectations that develop between aspirations and deliverability. Consequently, it was crucial to inform those involved of limitations at the outset, as total 'blue sky thinking' could result in extreme disappointment.

Within this context, key stakeholders – including pupils, teaching and support staff, head teachers and community groups – participated in the process to develop the project brief. The personal experience of each of these groups and the diversity of opinion therein, provided an invaluable dimension to the ITN documentation. However, the significant challenge was to ensure that the bid teams incorporated the information in their submission.

A variety of approaches were adopted to engage the different stakeholder groups. The contextual setting for each differed depending on what aspect of the brief they were informing. However, the core premise remained constant; developing a good design that would meet the needs of the user. While the contribution of each group was important, two groups in particular are highlighted below to demonstrate a sample of the activity undertaken.

## Pupils

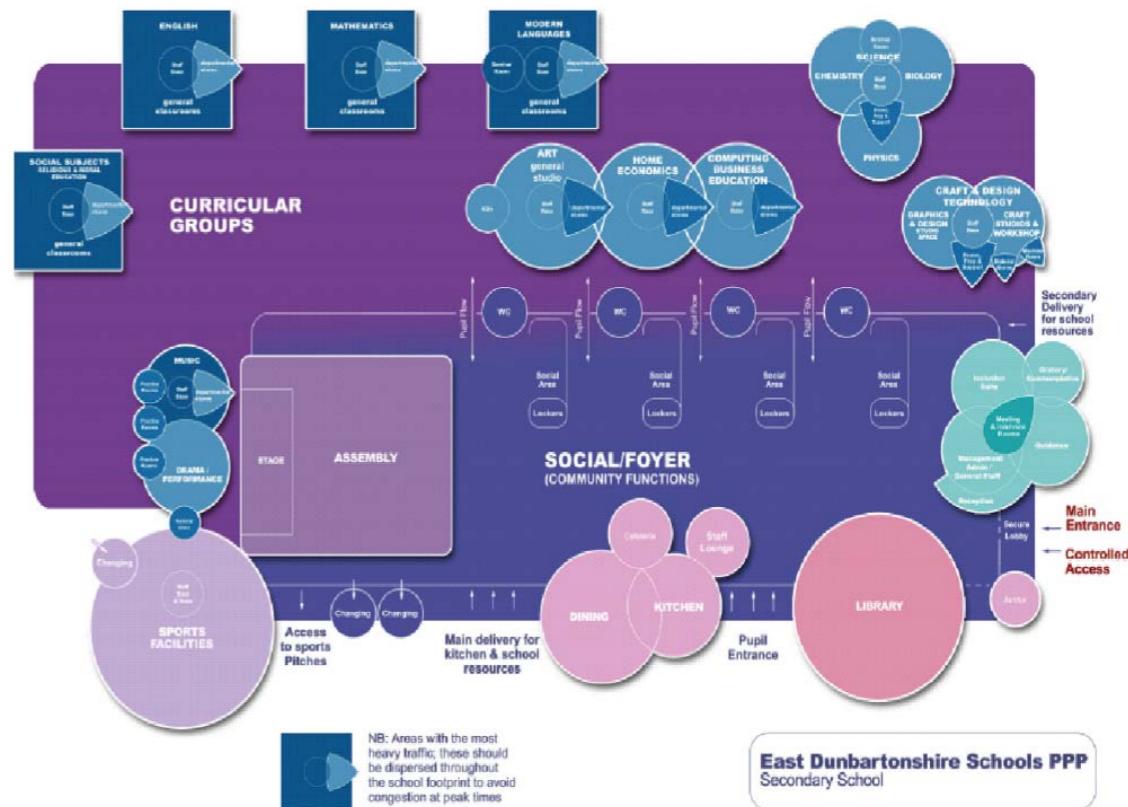
Schools are places where generations of young people gather on a daily basis to learn many of the skills necessary for their progression into adult life. It is important to note the part played by the school environment in promoting effective learning and teaching. Self-esteem and motivation are critical factors in determining future success. Arguably, therefore, a key informant to good design should be those whose learning life is shaped by the physical environment they inhabit, the pupils.

We arranged a series of design workshops involving pupils from each secondary school in East Dunbartonshire. Participants from each year group were taken to The Lighthouse Centre for Architecture and Design in Glasgow, where, over a period of time, they discussed design issues, examined architectural building solutions, considered texture, space and colour and produced concept models of what they thought a new school design should incorporate. The workshops were recorded on DVD and a copy was included in the ITN.

Subsequently, pupils were given the opportunity to comment on the design solutions submitted by each bidder. Plans were displayed in schools and a full report on the comments received will be produced by an independent analyst.

## Head Teachers

The involvement of the head teachers' group was an essential element of the consultation and communication strategy. Their contribution to a number of specific issues was important but in particular it is worth focusing on the development of the spatial relationship diagram. Led by the project's design and technical adviser, head teachers worked with members of the project team in what proved to be a lively and challenging debate. The fact that agreement on departmental, social and community locations was achieved by those involved demonstrates a high level of co-operation and active participation.



The diagram shown above was included in the ITN as information to bidders. The key principles demonstrated are:

- Separation of departments for classes of 30 pupils;
- Groupings for practical subjects;
- Ability to lock teaching rooms down during community use;
- Central location of toilets, Library, Inclusion suite, management, administration, dining and social areas;
- Relationship between music, PE, drama and performance spaces;
- Location of staff bases / staffroom;
- Access and egress management;
- Deliveries.

The ITN was issued in July 2005 and at an early stage in the design process, both bidders met with the project team to discuss how the spatial relationship diagram should be interpreted. Both provided representations of how this has been transcribed into the designs for individual schools in their ITN submissions, received in late November. On studying these submissions, it is clear to see that both bidders have embraced the principles that underpin this diagram.

In conclusion, it must be noted that the time commitment required to engage in the level of consultation and communication undertaken in this project has been considerable. It could be argued that having full time commitment to this process is essential however; the practicality of project costs must always remain a priority. Additionally, it must be recognised that if opinion is sought too often, the resulting expectation is that every aspect of a project can be influenced. This tension requires careful management as it must be remembered that consultation does not result in collaborative decision making.

Notwithstanding, it must be emphasised that the East Dunbartonshire Schools' PPP Project has been better informed and briefed more thoroughly as a consequence of the consultation and communication undertaken. It is with excitement that everyone involved looks forward to the selection of a preferred bidder who will design schools that reflect the aspirations of the community.

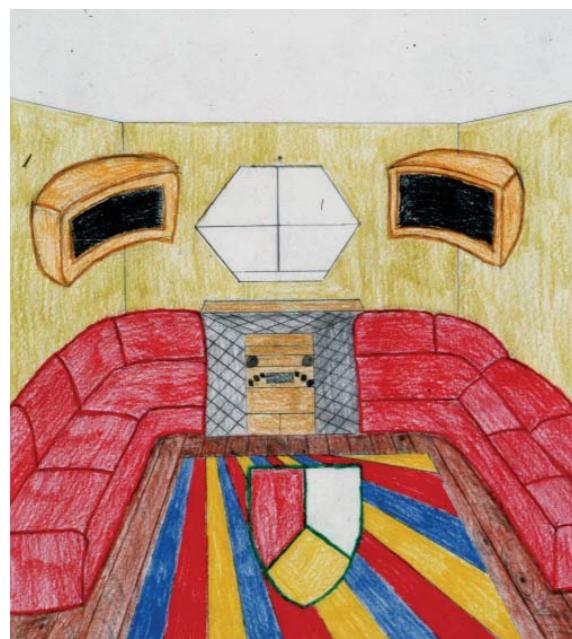
# Involving Children in School Design: Lessons from the Past.

Dr Catherine Burke

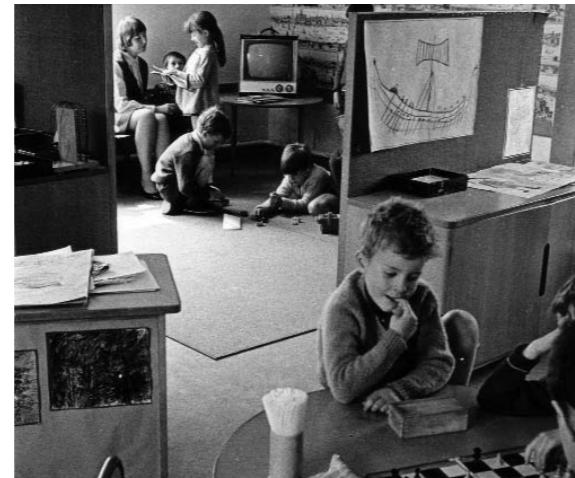
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The last significant period of school redesign and new build in Britain occurred in the post-war years. At that time, there was voiced a familiar optimism: that schools and schooling should and could be transformed through new methods developed by pioneering teachers, combined with radical architectural work. Architectural designers such as Mary Crowley spent time inside schools, carefully observing and recording the movements of children and teachers, and discussing the intentions of pedagogy. The resulting buildings became internationally celebrated. Schools without classrooms, with open spaces allowing free movement, cross-disciplinary learning and team teaching were at the leading edge of design for primary education. Every detail was considered; the colour of the carpets, the materials of the light-shades, and the design of the furniture. A home-like atmosphere was created; an inviting space encouraging exploration, meaning making and playful learning.



School Interior. Image from *The School I'd Like* Archive Collection, (2001), University of Leeds



**Spot the teacher!** An interior view of Evelyn Lowe School, London, opened in 1965. Note the domestic interior. Photograph from the Architecture and Building Archive, Institute of Education, the University of London

Can we design schools today that are inviting and stimulating places to inhabit? So much so that children are eager to enter, and do not wish to leave? Such child-like perspectives have been applied in the past, and are consistent with what children and young people say they need in order to learn well today. We must consider what children's own vision of the transformation of space and time required for education might be. It is not enough to involve children in partnership in the design process. This will always be tokenistic, and will fail if we do not also recognise that schools are places that continue to be shaped and reshaped through habitation over time. Children and young people can be engaged in that process if supported by teachers whose thinking is 'spacious', a quality that was encouraged more often in the past than in the present.

#### Further information:

***The School I'd Like.*** Children and Young People's Reflections on an Education for the 21st Century. Burke, C. and Grosvenor, I., (2003) London. Routledge Falmer.

***The School Without Tears. E F O'Neill of Prestolee School.*** History of Education, Volume 3, 263–275 Burke, C. (2005)

# Enabling Place Making; The role of the designer in supporting community vitality

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Architects design spaces, but it is the organisations and individuals who use them that transform those spaces into distinctive and vital places. We can admire a piece of architecture as an artefact, but it may not be a place we cherish in our memory. It may be respected but not loved. It functions but does not inspire. I will argue that the places we enjoy are those where the buildings support the community in reflecting their aspirations and values, through the way they are used, managed, dressed and adapted. The configuration of the space can support or hinder communication and privacy. The form and materiality can express or misrepresent the values and behaviour of the organisation, and attract or dismay those we wish to use it.

At DEGW we are concerned with both organisational and physical design. Much of our work is in helping organisations articulate their ambitions, frame their demands, select the appropriate solutions and manage the process of change. The focus of our interest has been in the workplace, however with the impact of information and communications technology functions are blurring. The city is becoming the office, and offices are becoming microcosms of the city, with 'boulevards', 'neighbourhoods', and 'plazas'. Businesses are focussed on adding value through the application of knowledge and innovation, with continuous improvement through learning from evaluation and feedback. The work environment with its focus on collaboration, creativity and learning often resembles the 'playroom'.

Good architecture provides the frame, represented by the 'building shell', that:

- Is configured to allow for a variety of organisational arrangements over the life of the building;
- Stimulates the user to reconfigure the spaces to match their specific aspirations;
- Is expressive of the values of the organisation it is built to support, whilst not being so specific that it does not reflect the expectations of future generations.

Sustainable buildings are adaptable over time. Layering the briefing and design process, DEGW argue, allows for greater user involvement at the point of greatest impact. Four levels of

decision are identified:

- **The building shell** – the longest term decision, designed to adjust to long term changes in technology, usage and function. The form and iconography reflects the character of the community it is located in as much as the current user.
- **The services** – adjusting the shell to the specific activities to be housed within, these will probably be renewed and upgraded several times over the life of the shell.
- **The scenery** – finishes, furniture, equipment and subdivision that reflect users' particular demands, and change with each new educational regime.
- **Settings** – the reorganisation of the scenery by the user, often on a day to day basis.

In school design over the last 40 years, we see examples of matching the building form to a specific philosophy of teaching too precisely, as with the exemplar schools built by the Department of Education R & D unit in the 1960s. At the other extreme, in the same period, the Californian Schools system, conceived by Ezra Ehrenkrantz, due to its desire to accommodate change and build more efficiently was often uninspiring and lacked a sense of place. The 'structuralist' Herman Hertzberger, in his Apollo primary schools in Amsterdam, provides a flexible frame which stimulates interaction and raises the spirits. These buildings are a true reflection of a 'blue jean building' that improves with use.

## Hungry for Success: Case Studies



Photo: Graeme Rogie

**'Hungry for Success'** is part of a Scottish Executive strategy aimed at revitalising the school meals service in Scotland and making curricular connections in terms of health education and health promotion. Good design has an important part to play in delivering the strategy, by helping to make the dining experience more attractive to pupils. The following examples show how authorities are beginning to address this need by improving the function, comfort and visual appeal of dining spaces.



### Creative dining in Moray's schools

A new project for primary schools in Moray is shaking up the school meals experience by using art to improve the dining environment.

Dining spaces in rural areas tend to be multi-use, so these spaces are flexible and can be seen in a different light by whoever is using them. For this reason, dining halls are an important resource and focal point in Moray schools, so it was important to bring in artists who could involve the entire school community. As far as possible, the artists tried to give a hands-on experience to the children.

One of the main aims of the project was to change the social experience of school meals through the use of visual arts: going to the dining room has now become much more interesting. There are hangings, cut-out MDF shapes and all manner of different materials in use.

We are intending to open the project up to the public to see what work has been done in dining halls throughout Moray. There are now potentially over 40 art galleries in the area that weren't there before.



### Dining: a social experience in Highland

In August 2002 Glen Urquart High School relocated to a new building, part of the first PPP project undertaken by Highland Council. We left behind a canteen housed in a HORSA hut dating from around 1950 and have been delighted with the airy spacious facilities now available to pupils and staff. As part of the same project, students on the Ardnamurchan peninsula were provided with a local high school for the first time.

The two schools are built on very similar lines. Pupils now have a social area to use during breaks and can enjoy their meals in an area bathed in natural light and with views onto the school courtyard, itself enhanced by an arts project.

In good weather the courtyard doors can be opened and meals can be eaten outside. As a result of the improved location the relationship between pupils and catering staff has been greatly enhanced.

Within the school, pupils feel a greater sense of ownership of the facilities. The 'Hungry for Success' initiative has been taken up enthusiastically by pupils in S1 and S2: indeed, the cafeteria is now fuller than ever before.



### Beating the Queue in Fife

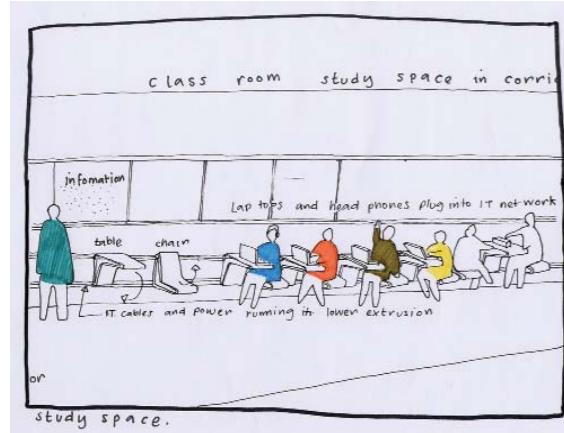
Fife Council acknowledged that having to wait in long queues was a major reason for pupils turning their back on school dinners. They have addressed this problem at Inverkeithing High School by combining the two main dining halls into one large space which was completely revamped. The kitchen, located at the centre of the dining hall, now provides one central service from four counters. Pupils coming from the two ends of the dining hall now enter separate queues for either hot food or cold sandwiches. This is a great improvement over the original single line queuing system, increasing pupil flow and greatly reducing serving time. All pupils have generally got their lunch within half an hour, and are delighted that they have better and easier access to the type of food they want.

Elsewhere in Fife, congestion problems and queuing times in dining halls have been addressed by providing additional service points at break and lunchtimes through mobile vans in the school playground.

# What is a school? Preconceptions, consultations and ownership

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Henry McKeown and Sam Booth are an architect and a designer. Over the last ten years they have collaborated on a number of projects.

Most recently they have come together through the FLaT programme delivered by The Lighthouse – Design for Learning: 21st Century Schools. Working with school communities, they have examined the notion that schools are an assembly of people not just buildings, whilst acknowledging that there is a relationship between the pupils/staff/visitors and the spaces they occupy.

The question for debate is undoubtedly threefold:

- What should go on inside schools?
- What spaces do we need in schools?
- What is a school?

These statements can challenge our preconceptions about what a school is or needs to be. The Room 13 project shows that the most amazing educational results can be achieved in schools where a creative arts programme is fostered, even though the buildings in which the project takes place may be of modest character. Would better-designed spaces provide better results?

**Henry McKeown**  
JM Architects

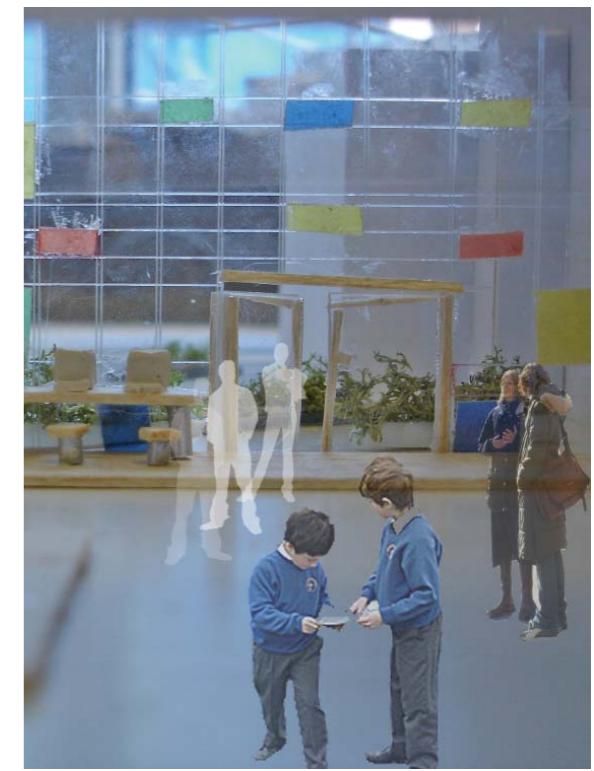
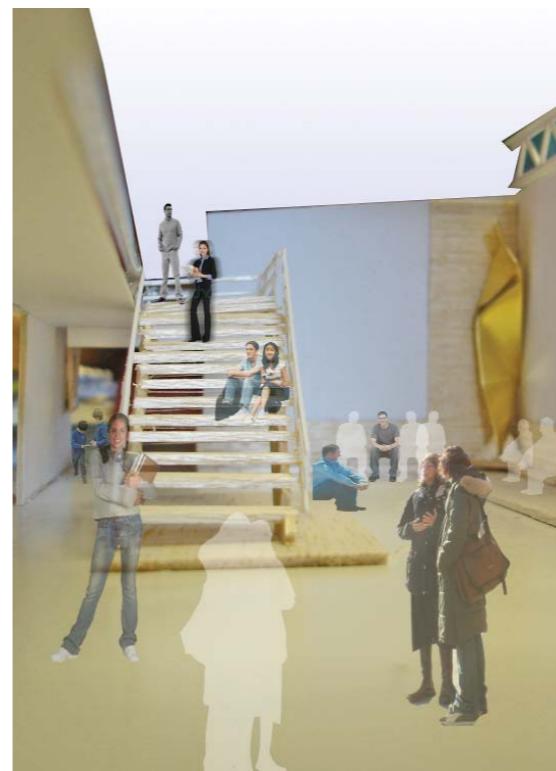
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## Alford Academy – Sam Booth

I was invited to work with S3 pupils from Alford Academy in Aberdeenshire, looking at classroom spaces and furniture. Alford Academy, with a lack of flexibility in the classrooms, and no social space indoors, appeared from a design perspective to be a series of inadequate spaces, to which the only solution was a remodelling of the school fabric. Had I made only one visit to Alford, and not had the opportunity to work with the pupils and staff, that is the route I would have taken. I would then have missed the extraordinary positivism and creativity within the school, that allowed Alford to work despite, or perhaps even because of, its lack of flexibility and space. Throughout the work, I found the Alford students refreshingly honest about my preconceptions, and creative in their subversion of them.

We began by mapping the school, looking at the way in which people moved through the space. We discovered that corridors made up 20% of the school, and that with no common room or social space, students spent 20% of their school day in the corridor, walking on average 2.5 miles a day. The corridors were also the spaces in which the community met the school, as local people accessed the school library throughout the day.



For these reasons, rather than looking at classrooms, we chose to focus on the spaces linking them, on the basis that learning does not stop at the classroom door and should not be seen as distinct from socialising. I designed a flexible corridor furniture system with this in mind. The students identified a whole series of imaginative and practical interventions, such as linking a corridor to an unused sculpture garden, and solving the problem of bags being left on the floor with a Velcro wall, to which Velcro bags could be stuck.

## Dunblane High School – Henry McKeown

Every thing we see, touch and use has been designed, yet it is surprising that as a general rule most of us are not conscious of this fact. In contrast, we revert to a higher state of consciousness when we decide to purchase something: we discriminate and choose. What informs how this choice is made is down to the individual, and their awareness of what constitutes good design.

Seeing comes before words. The child looks and recognises before it can speak. The way we see things is affected by what we know or what we believe. The sub text to the Dunblane High School workshop was to highlight and challenge preconceptions about design in order to help inform a design process.

At Dunblane High School, Henry ran a workshop with the pupils to examine the kind of spaces the pupils felt would be important to their new school. Each year group was lobbied by their peers to ascertain priorities and opportunities. An audit of opinions at the school was broken down, and key spaces identified for exploration by the pupils. These included:

- Social spaces;
- House spaces;
- Approach to the school entrance.

Within these spaces, issues of identity, lighting, art and IT provision were identified. Pupils then came to Henry's studio to work up these ideas with drawings, models and 3D visualisation. These were then presented to the school for their endorsement. In effect, the pupils became the designers.

The FLaT project, with its focus on consultation, collaboration and partnership, clarified the essential point that a school is an assembly not of buildings but of people.

# Creating ownership and pride at the heart of the community

**Tracy Meller**

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## Minami-Yamashiro Elementary School

Kyoto, Japan 1995-2003

The design uses the discipline of an economic modular grid to accommodate a variety of spatial experiences for both children and adults. The fun experienced in the building arises from our playing with this grid in many different and surprising ways.

Minami-Yamashiro is a remote village in the Kyoto Prefecture nestling in the mountainous region south of Kyoto. Recognising a growing decline in rural population, the local mayor was anxious to reverse this trend by initiating a project that would reunite and regenerate the local community – a school with an extended role as a community centre. After a protracted political battle (originally designed in 1995/96, the building was finally constructed in 2001/03) the result is a building that has restored a sense of identity and civic pride. Prominently located on the main road to the village, the school stands on the brow of a hill, with panoramic views over the countryside beyond.

The brief called for a low-budget school for 6–12 year olds that would also provide community centre facilities for the village – a radical departure from the Japanese norm. The 6,200m<sup>2</sup> building has been conceived as ‘a big house’, offering not only day-time schooling but evening classes and life-long learning for the community’s adult population.

The heart of the school is a large common hall that mediates between the outdoor playing fields and two levels of flexible classroom spaces arranged within a repetitive framed grid. This multi level top-lit space is similarly organised within the expressed structural grid and contains all circulation and classroom breakout spaces. Specific spaces for art, science and music classes are grouped at the lower level. A sequence of modular north lights bring light deep into the heart of the building. An adjacent gymnasium/village hall, built from the same kit of parts, frames the approach to the school and the playing field (including an outdoor swimming pool) which it contains on two sides.

Teaching spaces are grouped in pairs, and separated by sliding screens that allow each access to a shared breakout space for

informal teaching and play. The school uses level changes across the section to create spaces that respond to the scale of both adults and children, and the colour coding of bright walls within the grid frame defines different areas and functions.

This project uses simple, durable, low maintenance materials to achieve elegant results. The building has a strength of its own, yet can be read within the classic Japanese constructional tradition which has long inspired modern architects.



## Mossbourne Community Academy

Hackney, London, 2002-04

This project is all about putting pride back into a community. It is about ownership, equality and heart. It is about genuine approaches to sustainability through environmental design and material choices.

RRP’s design for the Mossbourne Community Academy replaces the former Hackney Downs School and accommodates 900 pupils aged 11–16, with a special focus on teaching information and communication technology, as well as offering learning facilities to the wider community.

Located in one of England’s most deprived boroughs, Mossbourne is a new sort of school for a new century, and a powerful engine of regeneration in its own right – the architecture of the building expresses its significance and embodies key themes of accessibility, openness and social inclusion. The project is in tune with the aspirations of the

The Lighthouse, Glasgow 25 May 2006



Urban Task Force (chaired by Richard Rogers) and with ideas of urban renewal generated at grassroots level.

The triangular site for the Academy is confined, and subject to high levels of noise from the busy railway tracks that enclose it on two sides – on the third side (to the north) it looks out to Hackney Downs, treasured as one of the very few green spaces in the borough. In response, the 8,312m<sup>2</sup>, three-storey building – one of the largest timber frame buildings in the UK – is conceived as a broad ‘V’, its back to the railway track, its focus the generous external space to the north.

Teaching spaces look out on a new play area that is visually linked to the parkland beyond. The various faculties for year groups are housed in sections of the building configured as terraced houses, with access from a broad covered cloister, with internal circulation via an intermediate zone. Each house consists of a ground floor of common space, designated staff areas (there is no specific staff room in the school), with a top-lit IT resource space and two levels of more traditional classrooms looking out over the Downs.

The school’s headmaster Sir Michael Wilshaw was employed as an educational advisor from an early stage in the project. As a result, the design challenges accepted models of school design, and responds to the specific requirements of the school. There is an emphasis on creating a sense of ownership for both staff and pupils, and the provision of both formal and informal learning spaces.



## Joinedup Design for Schools

Deptford, London 2003

RRP were invited by the Sorrel Foundation to team up with Deptford Primary School as part of their Joined Up Design for Schools programme. Our clients were a group of six 8–10 year olds elected by their peers to take responsibility for the redesign of their school toilets. The client team had conducted a questionnaire within their school, which was used as the basis of our brief. RRP worked with the children through a series of design workshops which addressed colour, materials, technology and hygiene. The resulting designs are bright, bold and we hope they will be implemented once funding is in place.

# Fife Council's approach to the development of the external spaces of Primary and Nursery Schools

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Imaginative seating, Aberhill Primary School in Methil

External areas are a crucial asset to any school. They have a significant effect on the ethos of the school and should be designed to maximise their potential and meet the needs of their users. External areas are not only places to 'play'; they are now viewed as outdoor classrooms where much of the curriculum can be delivered and even enhanced. The facilities provided can have a major impact on the promotion of values and citizenship and the delivery of current Scottish Executive initiatives such as Active and Health Promoting Schools.

**Good school grounds not only provide the opportunity for exercise and creative play – they also add a new dimension to learning by offering direct contact with the natural world and hands-on experience**

Health Promoting Schools



Curved bench, Aberhill Primary School in Methil



Play hut, Aberhill Primary School in Methil

For example, when sites are chosen for new schools it is essential that an adequate allowance is made for both the building and the external area requirements. As well as hard and soft play areas, some schools prefer to have zoned areas for different age groups. When designing the school building, consideration should be given to how the building can be used to naturally zone these areas.

Other aspects of good practice outlined in the brief include careful design of school boundaries, to provide a favourable impact while remaining secure; areas for social interaction; environmental and sensory gardens; activity trails; areas for encouraging creative and active play and for planting and digging.

**Seating is very important for children, although not in the form of wire or slatted wooden benches. Children are looking for imaginative seating – toadstools, storyteller's chairs, friendship benches, wooden tree trunks etc.**

Turning to nurseries, it is essential that the nursery classroom has direct access to the outdoor space, to give children choices of exploration. Weather conditions should not restrict children's choice; many nurseries have or plan to invest in waterproof trousers and jackets for the children, and providing shade from the sun is also essential, although often overlooked when designing new buildings. It can be achieved naturally through the orientation of the building or by providing structures under which the children can play. Nursery children are very imaginative and this should be fostered. Rather than providing a play house or wooden fort, consideration should be given to providing materials which can be used as a den or hide – willow tunnels and willow igloos make interesting areas – piles of logs can become castles and forts.

The Care Commission has recommended that the external space provision for each child should be 9.3m<sup>2</sup>, and this has to be taken into consideration when designing the position of the building on the site. Many nursery classes are unable to provide this space, and guidance on space provision has been included in the brief.

In both primary and nursery briefs there are sections on recommended core entitlements, outlining the core provision required and providing a number of possible options. Using these core entitlements, an audit tool has been designed, enabling an audit of the external space of all primary and nursery schools to be undertaken. This has resulted in an objective assessment of these areas with a list of priorities for action presented to the Council's School Estate Management Board. Overall this has resulted in a strategic approach to the development of these external spaces.

An action plan has been agreed and is now being implemented. This should result in more children and young people in Fife benefiting from having school playgrounds that provide opportunities for quality, safe and fun physical activities and social interaction and where they can be tranquil, imaginative, interact with nature and develop learning; in short, where they feel happy to be.

Copies of the Design Brief in CD-ROM format, priced £25 plus postage and packing, may be obtained from Senga Hogg, 5th Floor, Kingdom House, Kingdom Avenue, Glenrothes KY7 5LT.

# Senses of Place: making the most of your school grounds

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The new Queen Anne High School, Dunfermline. Solar panels power the water fountain – providing opportunities for hands-on learning



Pupil involvement in designing and making raised beds supported delivery of the maths curriculum in Inveraray Primary, Argyll & Bute

Grounds for Learning (GfL) operate in Scotland as part of Learning Through Landscapes. We are the national charity committed to enabling schools and Early Years settings to improve their outdoor environments, in order to provide a unique resource for children, young people and the whole school community.

GfL, with partners Play Scotland and sportscotland, have recently produced two important pieces of research to inform our understanding of school grounds in Scotland, resulting in a range of key findings<sup>1</sup>. For example, across all school sectors, shelter and seating were identified as the 'most wanted' features for furnishing school grounds. Worryingly, most schools (70%) did not have a school grounds maintenance policy.

Building new schools raises many issues – and opportunities – for providing new school grounds with 'added value'. At the GfL conference 'Opening the Doors' (March 2004), delegates identified four key means to improve practice – improve the brief and output specification, afford higher priority to external space design, establish better consultation and planning with the whole school community, and raise awareness among stakeholders.

Key to good design is an adaptable outdoor landscape that allows for development according to changing school needs and promotes a sense of place and ownership, and enables all day access to support the formal, informal and hidden curriculum. Our new publication *Schools for the future: designing school*

grounds<sup>2</sup> helps to address these issues for schools, local authorities and design professionals.

Schools need support to engage positively with their grounds. GfL has established a tried and tested 'process of change' model to promote a participative, holistic, and sustainable approach to using and developing school grounds. In addition to our membership services, GfL deliver an innovative range of funded programmes which have allowed participating schools and nurseries to develop a particular aspect of their grounds, for example entrances, seating and shelters, growing areas or art work.

GfL training events demonstrate hands-on methods to deliver the curriculum outdoors and can support teachers' CPD requirements, as well as other professionals working in the field. Such an 'aware and informed' school community and professional network can make a positive contribution to the design and use of school grounds. Grounds for Learning are happy to engage with all those involved in this process.

Reports cited above, best practice, school case studies, information on publications plus membership information are available from our website; [www.gflscotland.org.uk](http://www.gflscotland.org.uk).

<sup>1</sup> The School Grounds Literature Review (Theresa Casey, March 2003), for details on the influence of school environment on children, and The School Grounds in Scotland Research Report (April 2005), for a baseline assessment of the national resource.  
<sup>2</sup> DfES/ Learning Through Landscapes

# Furnishings as a tool for education

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The environment, considered as a combination of spatial and sensorial qualities including architecture, furnishings and the space's non-material qualities (acoustics, colour, light, material landscapes, micro-climate) is a fundamental part of an educational project. The functionality and aesthetics of a space intended for young children should project and support a precise image of the child.

The environmental system – made up of lights, colours, finishes, signs and furnishings – that generates the quality and identity of a space, also acts as a connection between a building and its users. This system determines the range and complexity of the ways in which the space can be used, and the relationships it will encourage; indeed, it is so closely connected to the architecture of a building that it becomes difficult to distinguish between the two. Despite the fact that in environments for young children, furnishings and finishes should play a central role, the environmental system is sometimes given little value during the design process, and can be separated from architectural design rather than united with it. This is true even given the knowledge that environment is very important, both for its capacity to influence children's perceptive and cognitive capacities, and because the sensorial qualities of an environment have a close empathy with children's ways of learning – involving synesthesia – and are of strategic importance in giving identity to environments that require flexibility and fluctuation.

Recent research in the neurosciences and social sciences have confirmed that our environmental and social experiences as we grow up are responsible for the extent of the development of some of our senses and cognitive abilities. Our brains form and develop in different ways, depending on the environment we live in. Although the brain continues to be formed for our entire growing period – up to the end of adolescence – it is in the period up to the age of six that we give physical form to our cognitive and perceptive capacities, which are related to our environmental experience.

If a child's identity is formed through a complex and fascinating alchemy of environmental adventures and genetic history, then the wider the range of environmental experiences on offer, the more opportunities there are for supporting each child's individual journey of development.

Schools and environments for young children in general should be seen as great sensorial workshops for the child's self-learning; places capable of supporting and stimulating single and diverse journeys of growth. Places which are shaped by children's and teachers' activities and processes of working, but which also influence their perceptions and cognitive processes, and contribute to forming the identity of the individuals who inhabit them.



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