



ANFA 2014 CONFERENCE

PRESENTER ABSTRACTS
ACADEMY OF NEUROSCIENCE FOR ARCHITECTURE

Making Architecture for the Multi Sensory Impaired: Presentation of Three Projects

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1. ABSTRACT

"Hazelwood School exceeds expectations. There is really so much to admire about it; the way the design is adapted to the site, the choice of materials, the linking of interiors to the exterior and much more. For me the complexity and avoidance of straight lines ensure constant interest and variety while still maintaining intimacy and human scale. It is the most exciting new school building in Scotland" Keir Bloomer, Curriculum for Excellence, Chair of the Higher Order Excellence Skills Group, Education Scotland

When our children leave this school, they will not go into jobs or go and live in their own flat or house- they will always need to be supported. Adults who are blind and have learning difficulties can lead passive lives. But the more independence they have, the more choices they will be able to make and the more stimulating their lives will be. The pupils move around as though they have been here for their whole life and they adapted to the school quicker than I did". Monica McGeever, Client and Head Teacher, Hazelwood School

"Alan Dunlop was commissioned as the architect for Hazelwood School following a very thorough and rigorous selection process. Hazelwood has been highly successful for children and young people with severe and complex needs and in developing their confidence and independence. I would highlight the following: the use of tactile materials to provide orientation references; the variation of wall and floor design to indicate different areas; the emphasis on maximising opportunities to allow natural light in to the building; the flexibility of internal learning spaces which allow for individual and group learning; the creation of an integrated but external garden which provides a range of activity and learning opportunities" Margaret Orr, Client and Head of Service, Glasgow City Council

"One boy had been trying to trail for years, and within a week of being here, was doing it naturally. It is a visual and tactile school". Jayne Eyre, Teacher, Hazelwood School

"A beautiful well thought our design. Every school should be like this." "This architecture takes care of the environment...takes care of the students, the children, the teachers, the parents, and contains all of them. This is a school with heart and soul" Judges Comments, Design Share: Honor Award

"If I had to pick just one highlight it would be the day I spent at Hazelwood School. The pupils at Hazelwood all have sensory impairments and pronounced support needs. We've had young people from Hazelwood in the LAB making a radio podcast and I've previously made a film about the design of their beautiful building, which is a marvel of architecture and really empowers the pupils to be independent" Claire O'Gallagher BBC

"Staff have researched methods and practice in other similar establishments and are continuing to develop methods to involve children and young people in their own learning. Young people are moving around the school with increased confidence and independence. A few children in the nursery are now walking independently and have far exceeded expectations in terms of their mobility." Maureen McKenna, Executive Director of Education Glasgow City Council

HAZELWOOD SCHOOL, GLASGOW, UK

Hazelwood is a state school for the teaching of life skills to children and young people with severe and highly complex needs. It sits in a park land setting within a clearly defined neighbourhood and building conservation area, to the south of Glasgow. A competition to select an architect was organised by Glasgow City Council and six were invited to submit initial ideas for the design of the school and present their approach to its development on the parkland site. The shortlisted architects had to show clearly that they understood that this was a special project, for a particular client group which was also likely to generate much interest from the local community. GCC considered that the commission demanded a full time commitment from the chosen architect, who could design with sensitivity and imagination and meet the needs of the teachers, pupils and parents but also respect the amenity of the surrounding neighbourhood. The competition was won by Alan Dunlop.

The school caters for 54 students with multiple disabilities, aged from 2 to 19. Each student has a combination of two or more of the following impairments: acute visual impairment, hearing impairment, mobility or cognitive impairment. All the pupils are autistic, they will never be able to lead totally independent lives and each will require lifetime support. This range of complex clinical needs made Hazelwood an extremely challenging project, involving detailed pre-build analysis, development and discussion with client groups, teachers and children over a period of 14 months.

That said, the pupils who attend the school have the same social needs as others and have parents, carers and educationalists determined to support their aspirations. As the architect, I was committed to the idea of a building that could promote a real sense of independence for the pupil and a design of a place of safety and ambition that would support the child and free the teacher.

The Hazelwood school design focuses on creating a safe, stimulating environment for students and staff. I set out to eliminate any institutional feel and worked to avoid conventional thinking on school design. My aim was to create a bespoke building that designed out long dark corridors and maximised levels of natural light and incorporated visual, sound and tactile clues. I believed that even the smallest feature of the architecture could also be conceived as a learning aid.

Ease of navigation and orientation through the building was critical for the pupils. Internally the concept of a trail rail was developed, which doubled as a storage wall. This allowed the children to move around the school with a greater level of freedom and independence. The wall is clad in cork, which has warmth and tactile qualities and provides signifiers or messages along the route to confirm the children's location within the school. The school has been designed to deal with very specific issues whilst ensuring an architectural quality. It is a building that will not only support the senses but act as an environment that stimulates the imagination.

Classrooms lie along the northern quiet, edge of the site, overlooking verdant play spaces. The school steps and curves around the existing beech trees to create a sequence of safe, landscaped teaching gardens. High level clerestory glazing forms a substantial part of the façade of the north-facing classrooms, allowing for maximum daylight to penetrate deep into the spaces and ensuring even distribution of light. Storage boxes, two and a half metres tall, create a solid wall below the clearstory glazing; this reduces external visual distraction, highlighted by teaching staff as a significant cause of loss of concentration levels in some visually impaired students.

Hazelwood School has been a real success. The pupils respond well to their new environment and make the most of the school and its facilities. The children are thriving and this is testimony to the love of their parents and the dedication and expertise of their carers and teachers. The building represents a successful conclusion to an intense four-year design, consultation and construction process, involving parents, teachers, clinicians and the children themselves. It is the built embodiment of this care and the aspirations of all who responded to the need of the pupils.

Lessons learned in Hazelwood have been carried through in the design of new projects for young people with special needs, including autism and particularly designing to encourage free movement and to establish a sense of independence for the pupils while ensuring a safe and secure learning and living space. The response from teachers, educationalists, clinicians, support staff, parents and the pupils to the design of Hazelwood confirm that young people with severe and complex needs and who can be disoriented and confused easily and whose behaviour can deteriorate with boredom and anxiety to the point of aggression, can be helped to manage these negative characteristics by a supportive physical environment provided by sensitive architecture and careful design.

2. AUTHOR BIO

Alan Dunlop is a leading architect, urban designer and a respected educator. He is a Fellow of the Royal Incorporation of Architects in Scotland and the Royal Society of Arts. Professor Dunlop has an international profile and has completed a successful term as the Distinguished Victor L. Regnier Visiting Chair in Architecture at Kansas State University and as the Mahlum Endowed Lecturer at the University of Washington. He is currently Visiting Professor at Robert Gordon University, Scott Sutherland School of Architecture and External Examiner at XJTLU School of Architecture, Suzhou, China. He has taught at schools of architecture in USA, UK, China and in Germany and also lectured internationally.