

# Diversity in study

The teachers' mantra that no two children are the same also applies to school buildings. Architects must maximise the benefit to the pupils, students, staff and site

**Words: Pamela Buxton**

You could hardly get a more diverse bunch of education buildings than those featured in the latest PIP education seminar. From a low-rising special needs school in Ballymena to an intensely urban school in a wealthy London borough, and from a coastal arts/education centre to a Stirling Prize nominated teaching pavilion in the landscaped environs of an Oxford college, their differences are clear.

They all, however, demonstrate the extra level of thinking that architects, in collaboration with consultants and manufacturers, can bring to even the most challenging of briefs. So concluded conference chair and PIP editor Jan-Carlos Kucharek, and after listening to the presentations it was difficult to disagree.

Dixon Jones' Marlborough Primary School in Chelsea, which surely wins the prize for the most challenging site, is indicative of the different ways that new local authority school buildings are now being delivered. Funded via a Section 106 agreement linked to the development of luxury housing, the project also had to incorporate a pedestrian passage and a commercial office development, leaving a meagre footprint of just 80m by 40m to build a school to house a rise in numbers from 300 to 450 pupils.

Dixon Jones' solution is impressive – a densely stacked building stepping up to five storeys which makes a virtue of necessity by creating a cascade of rooftop terraces for outdoor play and learning. The entirety is realised with careful reference to local architecture including the delightful Michelin Building, which inspired the use of glazed brick with yellow, blue and green accent colours. Not only does the project meet its education and commercial brief, like the distinctive Victorian school it replaced, it creates a school with a strong civic presence, according to associate director Paul Jolly.

What a contrast in terms of context with Castle Tower School, a special educational needs through-school arranged over one and two storeys around courtyards in Ballymena,



**Above** By intelligently stacking the programme, Dixon Jones managed to increase Marlborough Primary School's head count from 300 to 450 pupils.

**Right** The entrance lobby of Niall McLaughlin's Sultan Nazrin Shah Centre at Worcester College Oxford.



NICK KANE



Northern Ireland. Isherwood and Ellis's design used shared central and social concourse facilities to link otherwise unconnected primary and secondary accommodation, with a separate entrance for nursery children and a dedicated post-16 zone within the post-primary block. The architect wisely took charge of the design of the entrance canopy over the important drop-off zone, incorporating the full colour spectrum into the sweeping form to reflect, says architect Arthur Sloan, the school's commitment to inclusivity. Classroom designs are standardized where possible to avoid too much change, which some students would find challenging. There is also easy access to outside 'de-escalation' areas as well as the provision of specialist facilities such as bounce areas, hydrotherapy pools and sensory rooms, plus a climbing wall. Isherwood and Ellis also rose to the challenge of providing stairs in a special needs school, choosing to celebrate them as a wide terrace with two flights of stairs interspersed with seating.

Acoustic control – always vital in any school – is all the more important in a special needs school where uncontrolled noise levels can be upsetting as well as detrimental to academic performance and teachers' vocal health. Rockwool technical specification manager Justin Lewis described a collaboration with RMA Architects on the National Autistic School in Chigwell, one of its many education sector projects. Here Rockwool installations in the soffits and flat roofs have helped create a calm setting that exceeds BB93 acoustic standards as well as achieving sufficient thermal and fire performance.

Another close manufacturer-architect collaboration, at the Quarterhouse arts and education centre in Folkestone, demonstrates how a bespoke solution can elevate a humble material to the key design feature of a building. Architectural metals and meshes supplier Cadisch MDA fulfilled Alison Brooks Architects' vision of a screen across the elevation inspired by the translucency of scallop shells. After an exhaustive collaborative process detailing the design, expansion and finish of the mesh, the polyester powder coated mesh was bent over a barrel piece by piece by hand to achieve the required curvature then riveted and welded into frames and installed with particular attention to minimising the fixings.

Niall McLaughlin Architects' impressive Sultan Nazrin Shah Centre at the University of Oxford's Worcester College, is another highly crafted building, this time in the further education sector. Associate Alastair Crockett



**Above** Common breakout areas are well-attenuated to avoid noise contamination at Castle Tower school in Ballymena.

described the fascinating process behind the design of the steam-bent oak seating, which has integral fold-down tables discretely incorporated into its backs, and the efforts to marry comfort and functionality with visual purity. We learnt about the radiating, fluted roof over the auditorium, inspired by the folds of a fan and created in glass reinforced gypsum cast from CNC cut moulds, and also the labour of love that went into realising the elegant Clipsham limestone masonry in collaboration with stonemason Szerelmey. This building, nominated for the Stirling Prize, also demonstrates how architects can deftly use new buildings to make better sense of an existing landscape, in this case by extending the lake up to the new building and by creating a clearer relationship with the nearby MJP-designed Sainsbury Building.

All the education buildings featured in this seminar worked hard to maximise the potential of their varied briefs and sites, to the benefit not just of those that use them, but of the wider community around them too. ●

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