KINGSDALE SCHOOL
SOUTHWARK

Phase two of the redevelopment of Kingdale School in South London was completed without the media hoo-ha, but the architecture is much better, says Vicky Richardson

Photography by Sue Barr
Kingsdale School is used to being in the media spotlight. When the first phase of its redevelopment was completed in 2004 by de Rijke Marsh Morgan it was a showcase for the government’s Building Schools for the Future programme and a model for the argument that good architecture helps learning. But phase two – a linked sports hall and music building also by dRMM – is a less political project. The architecture is also quite different: more subtle and less polemical, and all the better for it.

For Alex de Rijke, the latest buildings add a new element to the school that begins to break from the ‘Cartesian formalism’ of Leslie Martin’s 1959 design. While Martin’s buildings sit object-like in a landscape, the twin sport and music buildings are the edge pieces in the jigsaw puzzle. They also play an important role in linking the school with the wider community and providing facilities that will allow the school’s two main strengths – music and sport – to flourish.

If the original, main block celebrates the grid, with a steel frame and elegant glazing, dRMM’s buildings are the opposite. Made from giant panels of load-bearing cross-laminated timber, they are protected boxes that let in light strategically. The original main courtyard building, which dRMM roofed over with an ETFE pillow, sits back from the road on the ‘wealthy’ side of the site (there are the highest number of sit-on lawnbowlers in Britain here, says de Rijke). While it forms the main entrance on Alleyne Park Road, the ‘back’ of the school overlooks a number of housing estates where the majority of the school’s pupils live.

The new sports hall and music centre address this community, provide a boundary to Bowen Drive, and an alternative entrance to the school site. The way that the new blocks knit together the site in dRMM’s overall masterplan is important, but their best qualities are experienced on the inside. In a way, the project is an exercise in making architecture with limited means, and, while both use the same construction material, the architect has created two different atmospheres. dRMM says it believes in ‘non-standard architecture using standard elements’, and this project is an exemplar of that approach.

The standard element in question is an engineered, cross-laminated timber fabricated in Austria. Based on the same principle as plywood, each layer is a spruce plank between 1cm and 2cm thick, depending on the strength required. Something of a wonder material, used extensively in Scandinavia and Austria but not, so far, widespread in the UK, the panels are vast – 3m by 16m at their largest and roughly the size of the articulated lorries on which they were delivered. The beauty of the material is that it forms both load-bearing structure and infill panels, and unlike frame or masonry structures there are few restrictions on where to place openings. The simplicity of construction is also appealing – the panels are simply lifted into place with a crane, and butt-jointed. This makes the process fast and relatively cheap: the entire envelope was built in 10 weeks for a budget of about £3.4m.

De Rijke describes with relish how Dulwich College Prep School, whose site lies adjacent, opted at the same time to build a sports hall using a conventional steel frame and brick. The project »
Right: ARM’s masterplan for Kingsdale School, the largest single-site secondary school in the London Borough of Southwark.
1. Main building by Leslie Martin, 1959
2. Geometric auditorium of phase one
3. Main entrance
4. Sports hall
5. Music building
6. Link bridge and new entrance
7. Planned sixth-form centre
8. Sports track
9. Site of Dulwich College Prep School

Left: Long and cross-sections through the sport and music buildings.
Below left: A gallery looks over the main space in the music building. Timber panels are stacked vertically here.
Below: The sports hall looking towards a costa-like block that contains changing rooms below and a performance space above.

Above: A plan showing the sports hall (left) and the wedge-shaped music building (right).
Below: Bronze-coloured metal cladding on the exterior of the music building.
SOME CONSIDERATE DETAILS LIFT THE PROJECT FROM THE TYPICAL DREAMINESS OF INSTITUTIONAL DESIGN; FOR EXAMPLE, DOOR OPENINGS HAVE ROUNDED CORNERS, AND FIRE EXIT SIGNS HAVE BEEN ADAPTED SO THAT THE STICK FIGURES CARRY GUITARS AND TRIANGLES.

Took twice as long and the result is a dismal, predictable shed.

For the music building the panels are used vertically and covered on the exterior with a bronze-coloured metal cladding (insurers would not underwrite a wholly timber building). Bubble-shaped windows, related to musical notation and stringed instruments, were cut into the timber using a CNC machine. As the material also forms the roof, it made sense for the openings to continue there too. The timber offcuts were salvaged to make low tables and seating – the architect's own gift to the school. The effect of light pools dancing on the walls and floor, combined with acoustic panels cut in similar shapes, is whimsical and appropriately musical.

While the sports hall is a single soaring space, the music building is made up of a more complex, cellular series of classrooms, recording suites and rehearsal rooms. Wedge-shaped in plan, many of the rooms have an unconventional geometry, which seems apt for the building's purpose. The largest music room doubles up as a high-ceiled performance space, with a viewing gallery.

Classrooms on the first floor have sloping ceilings that echo the shape of the roof as it fans out in the opposite direction from its twin, the sports hall. The warmth of the timber, which is left exposed throughout the two buildings, makes these enjoyable spaces to occupy, while some considerate details by dRMM lift the project from the typical dreariness of institutional design, for example, door openings, which were mostly cut in the factory in Austria, have rounded corners, and fire exit signs have been adapted so that the stick figures carry guitars and triangles.

For the connecting bridge building, the wonder-timber has been used horizontally and is thicker for strength. And in the sports hall the panels have been laid horizontally, stretcher bond-style, which creates a quite different experience from the music building. This is a captivating space. Lit by daylight that floods through high-level glazing, in some ways it feels more like a church than a sports hall.

The construction technique here is self-evident and appeals in a similar way to a child's first attempt at using wooden blocks. For a retrospective at the Architectural Association in 2001, 'Off the Shelf', Fred Scott described dRMM as 'magical technicians'. It was a good way of characterising the practice's fascination with new technology.
THE ROOF IS PERHAPS THE MOST STRIKING FEATURE. ITS SWEEPING PARABOLIC CURVE IS PLOTTED BY A SERIES OF GLU-LAM BEAMS THAT SIT ATOP THE PANELLED TIMBER WALLS. STRIP LIGHTS SET INTO GROVES IN THE BEAMS EMPHASISE THE MOVEMENT OF THE CURVE.

combined with the ability to be humane without the cool detachment of high-tech. The basic plan conforms to a standard, providing a basket-ball court, or four badminton courts. But at one end, dRMM has created a 'castle' from a folded casing of timber, to house changing rooms on the ground level and a platform for dance at the higher level. The castle sits in the space as a free-floating object almost as an echo of dRMM's timber, geodesic auditorium created in Leslie Martin's courtyard in phase one.

The roof is perhaps the most striking feature. Its sweeping parabolic curve is plotted by a series of glu-lam beams that sit atop the panelled timber walls. Strip lights set into groves in the beams emphasise the movement of the curve. They also speak to the pattern created by yellow acoustic panels at the far end of the hall.

From the outside, the twin buildings are functional but lack the uplifting qualities of the interiors. Both are clad with profiled metal – bronze for the music building and silver for the sports hall. A large graphic of a stylised basketball player adorns the wall on the street side – a gesture that seems rather predictable given the widespread use of logos in sport. In general, though, the buildings are an excellent addition to the site. After the completion of phase one, Kingsdale headmaster Steve Morrison said he’d asked for a plane and been given concorde. For phase two, dRMM has again exceeded the brief. In terms of contemporary architecture, at least, the kids at Kingsdale are more privileged than their fellow students next door at Dulwich College Prep.