The principle of long term value is a very sound guide when spending money, yet somehow we still regularly fail to apply it in private and public building projects.

We are well-versed in judging the value of consumer goods such as cars, watches, and cameras and we understand that the correlation between price and worth is a subtle balance of complex factors — design, style, functionality, even brand, but how do we decide what is worth paying for when it comes to buildings?

Today we live in a culture of accountability, admirable in principle but an approach which can all too easily impoverish life and snuff out creativity. When accountability turns into a reliance on crude audit, things that are difficult to measure or things that take a long time to return value, will lose out to things that are tangible and immediate — and few things are more tangible and immediate than capital building cost.

Architecture offers a great mix of tangible and intangible benefits and does so over a long time. So to demonstrate its true worth within a culture of measurables we need to quantify the seemingly unquantifiable attributes of buildings, to assess their ‘whole life value’.

We might consider the real cost of a building as an iceberg. The initial investment is the part of the iceberg we see: the costs of land, design, construction, and finance. The submerged portion, the total cost of delivering the service from it: the maintenance, the energy use, costs of furnishings, equipment and staff salaries.

Typically if £1 represents the building cost including fees, the maintenance will be £1.50 and the rest of the underwater portion £65.

We know that high quality design and construction can not only make maintenance easier and reduce energy use, but it can also shrink staff turnover, quicken patient recovery, and make people more productive. The performance we require of buildings comes at a price, but can also guarantee a long life. If the ‘underwater’ costs were reduced by a couple of percent the building will turn out in the long run to have been free. We get out more than we put in. That is the value of architecture.

In this, our second journal we look at the tricky concept of value and its various meanings, through some of our recent work. Projects which offer value through design, functionality, teamwork and inclusion, help ensure that our investments in the built environment today continue to provide benefits in many years time.
Colliers Gardens Extra Care Sheltered Housing in Bristol and The Gardens in London provide two very different responses to the challenges of place-making.

Lynsey Hanley, author of ‘Estates’ considers these housing schemes and the distinctions we make between places, houses and homes.

‘A little thought and a little kindness are often worth more than a great deal of money.’ Ruskin always did know what he was talking about. As writer, as artist, as critic of art and architecture, as social reformer, he placed at the centre of his thinking a belief that it is possible for humans to create for themselves a world that is fair, just, equal, and no more complicated than it needs to be, one which puts experience first and theory, if not last, then strictly in proportion to all other considerations.

The best architecture is designed and created with a love for humanity and a compassionate understanding of lived experience. It’s collaborative and integral, rather than imposed and abstracted. As with any good relationship, it allows space to change and grow. Knowing how to make a home means knowing how to live with other people; yet the way in which buildings are laid out – whether far apart or stacked atop each other – affects this knowledge, and the ability to apply it, deeply.

There are few things more valuable than the sense of being able to move freely, with a sense of belonging and – though not excessive, for that may make others uncomfortable – entitlement. To feel embedded and secure in an environment, no matter how outwardly plain or inhospitable, requires a good sense of internal resources as well as external.

For beauty and generosity radiates in both directions: from within, when we feel happy rather than crabby, and from without, when good buildings and careful verdant landscaping encourage those feelings. At the centre of every building should be the idea of the person or people who will inhabit it, and not the other way around.

‘The Shining Levels’, John Wyatt’s classic account of the years he spent living in an austere, yet cosy and homely, one-room cottage deep in the greenness of the Lake District National Park, reminds us how little we truly need to find contentment if the basics are close at hand. He manages to convey the rewards of his resourcefulness – learning to cook, raising a baby roe deer – in the context of other people’s help. He doesn’t describe himself as a lone pioneer, a rugged individualist going it alone in an all-but wild landscape. He is part of a community.
in a place he loves and knows intimately. Beauty and utility in the built environment need not be incompatible aims. Penoyre & Prasad’s work in creating healing environments for the sick, as much as healthcare environments that keep you well and even increase well-being, are proof of the inestimable importance of human-centred practice. Arriving to visit my grandparents as a child, skipping up the short front path which belonged to them (even if they didn’t own it), felt like climbing into an enormous, comforting woollen jumper. As I grew older and began to reflect on the impact of how buildings are conceived on those who live and work in them, the question I asked myself most often was: why couldn’t everyone’s home feel like theirs?

At the Colliers Gardens Extra-Care Housing scheme at in Bristol, it is as if Penoyre & Prasad have answered that question of why some homes make you feel relaxed and safe, whereas others don’t. It is intended for elderly English and Chinese residents with varying needs, and exemplifies how thoughtfulness and care in design needn’t show itself in ostentatious luxury—a sort of ‘nothing’s too good for the elders’ approach—but in its accumulation of touches and signs, or ‘nudges’, to use the fashionable term, towards openness and interaction. Residents describe feeling at home immediately in their new living quarters, to which they’ve often moved with a degree of reluctance. If they arrive feeling vulnerable they quickly grasp that they are safe here, which enables them to settle and, more importantly, to avoid themselves of all that is on offer, not least abundant human companionship.

The architects of Colliers Gardens have understood that freedom of movement doesn’t come from having a straight line to follow, as in the case of so many corridor-filled institutions for the elderly, but in the element of surprise in the case of so many corridor-filled institutions. A visitor arriving at the complex can enjoy the verdant communal garden, again featuring a long bench encouraging informal meeting, overlooked by the development’s mixture of large-windowed flats and maisonettes. You are home, both indoors and out. You are home, both indoors and out.

And stepping outside. For those who are more inland, the patient work of wardens and carers can help to coax people who have become used to feeling scared back out into the world.

A Cantonese woman who moved to one of the apartments at the same time as several of her friends from the Chinese Elderly Club summarises the beneficial effects of feeling secure perfectly: ‘I feel safer here, as well as more sociable’. In short, having her needs met enabled her to look outwards.

She describes her new living environment, appreciatively, as being ‘a bit like a hotel’: what greater treat after a lifetime of hard work than to feel as though you’re always on holiday? I remember how unsurprisingly pleased my grandmother was to live in her immaculate two-bedroom council house, or her sister in her nearby flat, adapted for her disability, and their immeasurable sense of safety in their homes. Their homes had a friendly, needs-meeting quality which, alas, lacked in much of the other social housing, built more quickly and with less care, which, alas, lacked in much of the other social housing.

Similarly, in Stamford Hill, at the heart of London’s Orthodox Jewish community, another new housing scheme designed by Penoyre & Prasad has sought to bind together the specific needs of its residents with a commitment to universal principles of space, light, visual variety and the kind of high-density building that allows people to get to know each other without being forced to through lack of privacy.

Each home in The Gardens requires an area of private space that is open to the sky so that, once a year, a temporary shelter—a sukkah—can be erected under which the family and community celebrates the annual festival of Sukkot, or the Feast of Tabernacles. The architects used this requirement as an opportunity to add variety and excitement to the development by creating a series of staggered balconies in which no two homes are overlooked. Each balcony looks outwards, rather than overlooks, giving an already spacious-feeling development astonishing for its small footprint an even greater sense of openness. Walking into The Gardens, under a high arch created by previous development off a busy main road, feels like entering a discrete space in which all external concerns can be shaken off and forgotten. You are home, it stays. A series of family houses introduces the street setting, each with a private front garden and bench, which acts cleverly both as a demarcator of each home’s private space and a place on which neighbours can rest and meet each other.

Cars are banned from a point halfway up this gently curving streetscape so that residents can enjoy the verdant communal garden, again featuring a long bench encouraging informal meeting, overlooked by the development’s mixture of large-windowed flats and maisonettes.

Many of the large-scale social housing developments of the 1950s and 1960s, in particular, built during periods of population growth and ‘slum clearance’ from inner cities, failed to meet these intangible needs, in great part due to a failure of communication and collaboration. In the words of Penoyre & Prasad’s co-founder, Sunand Prasad, ‘By the second half of the twentieth century it often seemed as if architecture had no vocabulary that spoke cogently to anyone other than architects and cognoscenti... A work of art by contrast is intrinsically about deliberate communication.’

Such deliberate communication can only take place if there is a sense that each party is on an equal footing, is able to look each other in the eye, and has an understanding of each other’s needs, constraints and desires. New homes such as those designed by Penoyre & Prasad at Colliers Gardens and The Gardens, speak of a new kind of housing architecture, one in which architect and community have finally engaged with one another, to the benefit of both. That’s what the best art does—in which case, surely good architecture is art, applied.

Lynnsey Hanley

I can’t think of anything I don’t like about living here. The building is light and pretty and the water in the bathrooms is really hot. It’s a bit like a hotel, and when you look out at the gardens it’s beautiful.

Yaumui Hoi, resident, Colliers Gardens
Dickon Robinson of Building Futures examines the ways in which social housing schemes can contribute to good place-making.

On the face of it The Gardens, a housing scheme for Orthodox Jewish families, and Colliers Gardens, an Extra Care Sheltered Housing project wouldn’t seem to have much in common. Closer examination however, reveals some common ground.

Both have been developed by specialist social housing providers, and consequently their residents are, or will be, people on modest incomes. About both there is a sense that they are communities apart, either as a result of age and infirmity or religious belief, and therefore unlike the wider urban or suburban fabric, where all ages and all religious beliefs may be represented to a degree.

In both schemes this is reinforced by the nature of their sites; backland areas surrounded and overlooked by other, pre-existing housing, with access via a single narrow gap in the surrounding wall of housing.

These conditions raise important challenges for client and architect. What relationship with surrounding buildings and community should be aimed for? Can the constraints of site, and specific client groups, be ameliorated so that there is a naturalness about the environment created? Is there a risk that communities based on common beliefs or age will create an unhelpful sense of exclusivity? Or do the same characteristics an opportunity to create stronger communities than would otherwise be possible? In addition, can architecture overcome the challenge of ubiquitous social housing standards – single central pendant lighting regardless of room size, budget bathroom fittings, lack of storage space – that often stamp a reminder of social status on such schemes?

Both schemes share a clear social agenda based around encouragement for social interaction outside the home.

The clever cranked floor plan at Colliers Gardens, Bristol creates a number of enclosed gardens shared by up to six ground floor flats, each of which enjoys a paved patio and personal garden area immediately outside their living room. Carefully integrated into the wider landscape, these private areas are well used and encourage regular casual contact with immediate neighbours.

A large refectory and lounge is well used and liked by residents, and is also regularly visited for lunch by older residents from the wider community. This sense of connection to the hinterland is beneficial and creates a sense of variety, bustle and interest.

At Stamford Hill’s The Gardens, a built-in bench is carefully positioned by the entrance to each flight of communal stairs each of which serves between four and six apartments. The majority of homes face onto and enclose a small communal garden with a number of fine mature trees. The scheme, of large family sized units, anticipates a large number of children living here, and this safe and sociable space should create an enjoyable heart and focus for residents.

In visiting both places one gets a sense of the care in which residents are held by their respective Housing Associations. The specialist details incorporated into the design of each home are evidence of a well-briefed development. The skill with which each home has been designed to be different from the others, and imbued with a sense of place and identity is admirable.

Dickon Robinson

Dickon Robinson of Building Futures examines the ways in which social housing schemes can contribute to good place-making.
buildings have had several physical or cultural needs. Many existing refurbishment can bring new life to those quite different circumstances today cannot create precious things about old buildings that we in our a much broader transformation: better homes, radically. But this is not just about energy, it's about the technology to do this, that existing stock actually represents a huge sustainable resource. With carbon reduction targets now enshrined in law at 20% by 2020 and 80% by 2050, we have a challenge on our hands to make this stock genuinely energy efficient in difficult financial conditions. But as we have the technology to do this, that, existing stock actually represents a huge sustainable resource.

Penoyre & Prasad is looking to radically reduce energy standards lies an exciting opportunity both with carbon reduction targets now enshrined in law at 20% by 2020 and 80% by 2050, the existing housing stock, which currently accounts for more than 25% of UK carbon emissions, is a significant element of that challenge. But alongside this urgent need to refurbish to new energy standards is an exciting opportunity both in architectural possibilities and in the way we all live. In the Retrofit For the Future programme Penoyre & Prasad is looking to radically reduce the energy consumption of a modest, conventional twenty year old 4-bedroomed house, reasonably built but with no particular intentions as regards energy saving or adaptation to different lifestyles.

If the introduction of these retrofit improvements are applied nationally to millions of homes across the UK the balance of consumption to cost improves radically. But this is not just about energy, it's about a much broader transformation: better homes, better environments, better places. There are some precious things about old buildings that we in our quite different circumstances today cannot create in new buildings. Inverse design and sensitive refurbishment can bring new life to those buildings without any compromise of today's physical or cultural needs. Many existing buildings have had several lives’ already so it seems quite natural to look at how we might give them at least one more. For design this means bringing the same levels of critical investigation and proportion to refurbishment as to new build, blurring the distinction between old and new, to treat all projects as ‘sites’ for high quality design by the brief provided by good design in green fields.

The last 100 years of over specific solutions to perceived requirements have taught us that it is much better to design adaptable, open ended solutions. Take schools design; we no want variety of space size, flexible space and the ability to carry out a range of tasks in one space or at least linked spaces. Whether or not we will need these characteristics of our learning environments in the future, the last thing we want is for the design of the building to stand in the way of such choices.

This is not just about new buildings, there are plenty of existing buildings which demonstrate inherent flexibility. From the seemingly endless variations of the ‘Georgian’ terraced house at one scale, to the equally malleable modern ‘industrial’ shed at another, there are plenty of existing buildings of generous structure and sound envelope capable of offering new and different patterns of occupation.

Taking design for education as an example again, young learners need to be inspired to learn, to like the activities they are facing and to be in a place that feels safe, comfortable and which looks good. Teachers need an environment that supports them in doing their job, an atmosphere of optimism and achievement to contribute to, helping them feel valued and secure. In theory, these qualities can be found in any well conceived and well looked after building, old or new.

In the UK we nurture an interesting cultural paradox in our relationship to ‘old’ buildings: sentimental attachment often coupled with a negative perception for their potential. Both are valid to a degree, but in our experience at Penoyre & Prasad, we have repeatedly found that stripping back the accreted layers of change, in the melee of competitive public procurement, led by risk-averse funders refurbishment is too often seen as a second best and not properly explored and evaluated at the outset of projects.

Penoyre & Prasad is looking to radically reduce energy standards lies an exciting opportunity both in architectural possibilities and in the way we all live. In the Retrofit For the Future programme Penoyre & Prasad is looking to radically reduce the energy consumption of a modest, conventional twenty year old 4-bedroomed house, reasonably built but with no particular intentions as regards energy saving or adaptation to different lifestyles.

This gets complicated in intensely occupied areas where there are interconnected buildings of a variety of ages – a typical healthcare, schools or university campus scenario – but it is all the more important in these situations to make the best of our assets and understand their potential before deciding on wholesale reconstruction or inappropriate change. By such understanding we can make often quite simple changes which unlock huge potential. At Snape Maltings for example, Penoyre & Prasad raised the roof of one of the buildings by just one metre making it possible to double the amount of restaurant space, thus transforming the front of house experience. At the Charter School in Southwark, roofing over an unused courtyard to form the central ‘atrium’ gave a sense of ‘centre’ to all the school spaces around it.

By applying more imagination and critical analysis, and less sentimentality and prejudice, we could unlock the fantastic future potential of our existing building stock. By not discriminating between old and new, and treating all projects as opportunities for innovation and lasting sustainable outcomes for our existing buildings will play a vital role now and in 2050.
On a midmorning, midweek, midwinter day in Crawley, a group of young women with caramel lattes and notebooks gather around a table on stylish grey and orange chairs, in the ‘Head Space’ on the new library’s ground floor. A toddler plays a computer game with his mum in the children’s area, an old lady in a wheelchair browses the large print section and a man asks about membership at the enquiry desk. You can hear voices from these various activities as you ascend the central stairs to the first floor, but not what they are saying. Here, a handful of people are working at IT terminals while others sit in the large red leather armchairs by the windows reading books and newspapers. On the top floor a man sits with his stamp collection, identifying from a large reference book. An elderly gentleman sits at a computer to search the family history site: next to him a younger man browses the internet. A few of us have brought our own laptops to plug into floor boxes at individual tables alongside a large bank of plasma screens displaying a local oral history project. Next to the ‘ask here’ desk, a woman photocopies an article from the newspaper.

There is an entrancing hum of quiet activity in the library, peaceful and communal. Neither silence, nor noise, it is hard to imagine an equivalent setting, a similar quality of sound. The sound of self-directed enquiry here in Crawley Library is both comforting and energising. It is, no doubt, this setting quality, so homely but still so public, that led the Scandinavians to call libraries ‘a living room in the city’.

There is a strong link between our environments and our behaviours; it is the real heart and power of architecture. There are no large signs here in Crawley Library saying ‘be quiet’ nor scowling librarians prowling the floors, fear-inducing silence. There is a self-regulated behaviour of civility and moderation that the institution (the library ‘brand’) and building together bring about. Libraries are embedded in our national cultural psyche.

The very word instils a hush. To some they have fusty, archaic, connotations; out-of-touch institutions in out-of-date municipal buildings. But the last decade has seen a country-wide investment in new buildings for this, the most public of public services, and with it a re-evaluation of the stuffy image of the library.

There is a future where libraries may be hotly debated, but the new Crawley Library proves that there is still a place for quiet, social gathering.
The design of these new buildings has aimed to counteract the trend of falling usage by opening up, quite literally, the services; relocating the library in busy areas of town, away from erstwhile homes in old civic centres and into transparent, enticing and welcoming new buildings which often combine the library with other services. The new Crawley Library is one of this kind, housing an improved library stock in a larger building that accommodates additional IT facilities, a host of specialist areas and new conference suite facilities. The Register Office and ceremony rooms, publicly accessible council services and county council administrative offices have been co-located with the library to create a larger civic presence.

The additional public services in the brief are key ingredients in the creation of a building with enough critical mass to sit comfortably and with appropriate civic nobility in a setting dominated by large, new town blocks. The corner site forms a ‘gateway’ into the town and calls for a landmark building. The massing of the library building is built up with a storey of council offices above the three storey library and faces what will be a new public square to the south. The masterplan proposal includes a large mixed use development to the other two sides of the square which, though currently stalled, will together with the library, bring a grain of urbanism into this otherwise fragmented area.

The aspiration for the library was to attract new visitors but not at the expense of existing users or the qualities of a library that they enjoyed. So whilst the popularity and success of high street bookshops was recognised, the design does not seek to directly emulate them, risking a faddish design becoming a white elephant in a few years time. The ambition was to celebrate the ‘libraryness’ of the library rather than squeeze it into another typology, with a vision for a significant but welcoming building with enduring appeal: a place that you could go to read, research, meet, study, borrow, learn, listen, or just be.

In response to this brief the idea emerged of a treasure trove that steadily revealed itself to you on entry: a single volume space over three floors, opened up by a central atrium, lined in oak, the geometry of which shifts at each level, and is marked by a strong ribbon-like stair that sweeps up through it creating natural wayfinding. Wherever you are, there is a sense of the whole library environment as well as an ability to retreat to or discover a part of it; a feeling of connection but not exposure.

Even with all of the additional facilities and services that the library offers, books still lie at its core and should the relative balance decrease in future years they will still constitute its essence. Embracing some of the more relevant elements of the ‘retail experience’, the ground floor is open and transparent, and is where some of the most popular and frequently used services and books are located for maximum accessibility. The upper floors house the main collection. Here, the books form the body of the building, with flexible shelving built into the depth of the external walls and expressed on the façade as render panels that create a playful rhythm with the stone cladding on the elevations. This strategy accommodates approximately 30% of the stock in the perimeter walls and, importantly, leaves a flexible floor space across the library for future change.

By lunchtime the IT terminals on both floors are full. The stamp collector has finished his identification but the family history work continues, with twins now joining the search in hushed but enthusiastic joint investigation. Back on the ground floor the ‘Head Zone’ tables are now free and a young woman reads a magazine by the window. A middle aged man sits back in a big sofa reading a novel with thermos, jug and a hoard of biscuits on the coffee table in front of him. Others take their new loans to the café, where the sun has just appeared after a morning obscured and the gentle bustle of activity continues.

I noticed a lot of people sitting in dedicated areas reading, revising, without a care in the world. The relaxed ambiance is almost tangible.

Crawley Library Visitor
In the first year after opening, the number of new memberships at Crawley Library doubled, with 6000 new joiners and lending up by 55%.

Rita Lucas, Area Librarian, West Sussex

Building on the design success established at Portsmouth University Library, Crawley Library achieves carbon emission targets 60% below current building regulations.

Richard Quincey examines the challenges of devising sustainability strategies for libraries.

At the most fundamental level a sustainable building must last for at least 100 years; it must work for the intended purpose, be adaptable and of course people must love it for it to endure. Great architecture is essential for sustainable outcomes.

Delivering a sustainable design is a challenge that can only be met by a holistic approach and the key integrated design processes that shaped the success of both the Portsmouth University Library and Crawley Library projects provide important examples.

Both libraries are simple interactive mixed mode designs; they open up to the outside in warm weather and close-up in cold weather – people find this natural as they themselves go through a natural adaptive process during the seasons. We also like to be able to open windows, adjust blinds etc when it is appropriate; such designs are easy to live with.

Raised access floors were chosen to distribute services in both libraries, to leave soffits and walls aesthetically clean and to deliver supply air quietly and unobtrusively. Generous ceiling heights maximise heat stratification and provide for future adaptability – it is straightforward to move electrical and air outlets to adapt to inevitable furniture revisions. The raised access floor deck itself is used to deliver heating and cooling independent of the supply air (using water to deliver heating and cooling is more efficient than using air) to provide good radiant comfort in combination with the exposed thermal mass of the structure.

At Crawley a supportive client and an established local biomass industry provided the solution to the need for a low carbon heat source. The original design also included a ground coupled cooling source, however, as inevitable in projects there were cost pressures, at Crawley an open minded approach to budgets allowed a value judgement (using carbon and overall project sustainability as measures) to place building storey height as a higher priority to this cooling plant. Why? Great day-lighting and quality of space could deliver more to the long term overall success and sustainability of this library.

Daylight and quality of space were explored extensively on both libraries. At Portsmouth Library it was possible to create a relatively narrow floor plan that received daylight from two sides. At Crawley a functional deep plan became an asset, rather than a problem, by the integration of a carefully modelled central circulation volume / light well.

Good day lighting does have consequences; solar gain. Both libraries have been designed with minimal exposure to the east and west and utilise roof glazing for day light penetration and stack ventilation to remove excess heat. At Crawley library the solution involved stepping back the southern façade, providing solar shading, solar glass and blinds. At Portsmouth physical articulation and functional segregation of the facade elements to maximise self shading and to place glass (for views) in a position of maximum shade provides a highly functional and attractive holistic solution.

Richard Quincey, Technical Director IES Ltd
Minster School

Minster School, Southwell, Nottinghamshire is the site for a large scale commissioned work by ceramic artist Chris Wight. A pair of 3m sliding doors separating the school chapel from its assembly hall contain the artwork – a grid of around 3500 overlapping bone china discs made up into toughened glass panels.

The commission was a perfect opportunity for Chris to create light responsive work on a large scale with the ability to affect the ambience of an entire space whilst still possessing the same finely detailed qualities of his smaller pieces.

With echoes of Japanese Shoji screens, the piece uses light to create a tranquil and reflective space at the heart of the school. Sometimes the light is a diffuse glow, at others a pattern of geometric shadows and moving pinpricks of light fall across the floor.

The involvement of artists in Penoyre & Prasad projects, has ranged from installing works in the building to true collaboration in the design. Although all buildings communicate something, relatively few architects make communication a prime mover of design. A work of art by contrast is intrinsically about deliberate communication.

An artist involved in a building can provide the missing voice; at its simplest as an interpreter layering narrative onto the framework created by functional design, or more profoundly through a deeper dialogue with the architect and engagement with the design.

‘I wanted to create a translucent wall made of this magical material, which was capable of changing the atmosphere of the space. And though the piece has immediate impact, to fully experience the light responsive qualities of the bone china you need to see it at different times of day and throughout the year as it reacts to the changes in daylight.’

Chris Wight
This was all about contrast for me. This contrast of the material, and the contrast of perception against apparent imperfection. I chose these particular oaks for their straightness but set against the planes and lines of the building they reveal a contrast of organic bends and kinks which I like. With the help of the architects we chose to place them in areas where they look structural – within a library filled with stories, its another element of suspended disbelief.

Gordon Young

Richard Desmond Children’s Eye Centre

Solar shading for the south façade of the Richard Desmond Children’s Eye Centre at Moorfields had been conceived by Penoyre & Prasad as a flock of birds arrested in mid-flight. The size, fixing and number of blades had been largely resolved but there was no logic to, or narrative for, the random distribution of the blades. Artist Alison Turnbull joined the team to work out the final configuration of louvres.

Alison, whose work is inspired by existing plans, maps and diagrams, found the Amsler Grid, a drawing used by ophthalmologists which is used to test a condition called macular degeneration. Patients with this condition see a distortion when looking at a grid. She began to consider the hospital façade as a grid that has had its horizontal axis pulled out of alignment.

By bending and twisting paper with a grid and then drawing the results she developed a series of patterns that eventually achieved the exact appearance and shading required for the building. Light Projects Group added another layer of colour and movement to the composition with a dramatic lighting sequence that plays out every evening in this London street.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Yuko Shiraishi

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Yuko Shiraishi

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.

Richard Desmond Children’s Eye Centre

Penoyre & Prasad wanted a large mural inside the Richard Desmond Children’s Eye Centre, to extend over all five floors and connect the ground floor entrance to the main waiting areas.

Yuko Shiraishi created a final image based on an ophthalmologists diagram which describes the visual pathway between brain and retina. The ganglion cells receive visual information transmitted to the brain via threads of axons.
The new John Perryn School in Ealing is a Pathfinder in the Government’s Primary Capital Programme (PCP) initiative, designed to improve the standard of primary schools throughout the country. It is also an example of joined up working and collaborative effort on the part of a dedicated team.

With funds of approx £1.9 billion available in a finite window of opportunity to invest in the educational infrastructure between 2008 and 2011, how does the construction industry ensure that national programmes such as the PCP achieve lasting value and not quick fixes designed to achieve accelerated national targets?

PCP differs from mainstream BSF in that it doesn’t necessarily come with the same procurement constraints and heavy bureaucracy. As such it may offer greater opportunities for architectural invention. But it also requires a rigorous client and clear vision to help guide that invention to the right solution. As a Pathfinder project, there was always potential for the £8.4 million scheme to be a flagship for the programme, and by any standards the school is a success – constructed on time, over a fast-track two year programme from inception to completion, on budget, and lauded by its users and the London Borough of Ealing whose high aspirations for the project have been met and exceeded.

Ealing Council’s starting point for the project was an ambitious vision for a community school which would ‘inspire teachers and learners and promote positive attitudes and contribute to raising aspirations and attainment’ – not empty rhetoric for a school then described by Head teacher Von Smith as ‘as bad a school as I have seen in special measures’. Importantly Ealing embodied its aspirations covering sustainability, maintenance, flexibility, innovation and integration into the community, in a detailed and demanding set of Employer’s Requirements.

Combined with the Borough’s preferred Partnering Framework, this had the effect that anyone on board with the project had already signed up from the outset to the achievement of measurable targets, monitored at key milestones throughout the process.
Light airy rooms, fantastic acoustics and a strong community identity is attracting a near capacity intake, and has had an immediate effect on classroom behaviour and staff morale.

The early engagement of Penoyre & Prasad with the design and construction team established a highly integrated and collaborative approach early on – another major contributor to the success and speed of the project. Pathfinder status and a light programme meant that levels of enthusiasm, trust and commitment remained high throughout the process. Suppliers invested in the long term success of the project’s flagship potential, with some using the project to showcase new products.

The project carried ambitious sustainability targets of 10% of on-site renewables (the actual figure achieved was 15%) and 40% carbon reductions above and beyond current building regulations. As part of an integrated approach the design team worked with concrete supplier, Buchan, to develop a pre-cast panel system. Not normally used in schools, this robust solution offered significant thermal mass to support the natural ventilation strategy, exceptional acoustics, and enabled other parts of the programme such as the installation of ground source heat pumps to be run alongside the concrete manufacture with considerable time savings. Simple to operate and maintain, the building systems will help reduce whole life costs and allow for the introduction of other initiatives, such as solar panels, at a future date.

This was a happy project with an unusual degree of personal commitment. Steve Harnett, Operations Manager of Willmott Dixon, himself an ex-pupil of the school, provided curriculum opportunities for current pupils who were able to watch the rapid progression of their new school with a genuine sense of involvement and ownership.

Von Smith invested an unusual amount of time in the project; an experience she says she would not ‘have missed for a million pounds’ and which has clearly paid off. The school’s fortunes have turned around. No longer in special measures, its light airy rooms, fantastic acoustics and strong community identity is attracting a near capacity intake and has had an immediate effect on classroom behaviour and staff morale.

Though some have voiced concerns about whether or not the Primary Capital Programme really can continue delivering new build facilities at this level, John Perryn School embodies the best aspirations of the programme and shows what is possible with the right team at the right time.
The energy plant for the school will also serve the adjacent homes, replacing old boilers with a Combined Heat and Power (CHP) unit taking advantage of the different hours of use of school and housing to optimise efficiency.

The school itself has been designed to minimise energy consumption and make use of on-site renewable energy. Together with passive design strategies, use of brown roofs, reuse of existing facilities, specification of recycled materials and consideration of long term biodiversity, the project is on target to achieve a BREEAM rating of Outstanding.

In addition to the new-build Ashmount Primary School and Bowlers nursery, the existing Cape Youth Centre will be refurbished and a youth ecology centre created. These learning facilities will all be set within an urban woodland setting with after-hours community facilities, an improved park providing safer play spaces, better lighting and paths, and a new multi-use games area. While caring for the environment, this project is also about social sustainability, not only providing community-oriented services but involving a diverse range of local people in devising and managing those services in the long term.

Crouch Hill Community Park, recently granted planning permission, seizes an opportunity, rare in the middle of London, to create an inspirational place for young people in a natural setting.

When complete and operational Crouch Hill Community Park, will have added a new school to this neighbourhood while removing 90 tons of carbon dioxide emissions per year. Due to start on site later this year the development will transform an unkempt piece of Metropolitan Open Land into an exemplary carbon-negative development.