#GREAT SCHOOLS

MAKING THE CASE FOR GOOD DESIGN
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CALL TO ACTION

BY ROGER HAWKINS, HAWKINS\BROWN
The #greatschools campaign argues that architects can help provide the best school buildings for future generations to learn in. There is an urgent need to create more school places, but the process is being impaired by short-termism and a one-size-fits-all approach driven by cost and not long-term value.

With public sector austerity there are obvious concerns about a lack of maintenance. A recent survey identified that 42% of school buildings over 10 years old were graded “poor to satisfactory” and in need of repair. Added to this the London press have recently highlighted the shortage of 35,000 places by 2020. Two-thirds of local authorities expect to be oversubscribed by the beginning of the next academic year.

Our aim for the #greatschools campaign is to develop an action plan for positive change. Our collective observations are:

• There are opportunities emerging from policies that seek to give control back to schools. For example, all new schools will be free of local authority control. With this independence comes a greater need for design intelligence on how to manage estates and plan for the future. Architects are well placed to advise on this.

• The focus of education policy in school provision has to change. It needs to move away from short-term financial analysis to a longer-term understanding of real value.

We are storing up big problems for the future by neglecting school design. Let design in and we will end up with better buildings, better value for overall capital cost and better education outcomes.

• High-level change in procurement is needed to increase the architect’s role and the level of design-intelligence input, finding value-based solutions to specific problems, rather than generic solutions that can be costly and limit quality.

• A brand new school is expensive to deliver. Often the answer doesn’t lie in starting again but by taking a long-term strategic approach to the careful adaptation of existing buildings. Mixing new and old; being creative; mobilising local creativity; thinking critically and strategically: it’s what architects are good at.

The government is failing to keep pace with the demand for pupil places, and the crisis at primary level is about to hit the secondary sector. Plonking temporary buildings on existing sites, or sticking ill-thought-out extensions on decrepit buildings is not good enough. The answer lies in taking a long-term view.

We need to shout louder because architects are part of the solution. Now is the time to act if we want to impact real change in our school building programme. We must enable the delivery of appropriately designed quality school places with children at the heart of the proposals.
THE IMPORTANCE OF GOOD DESIGN

BY CAROL LEES, HAWKINS BROWN AND SHARON WRIGHT, CREATIVE WIT
Schools should be more than just functional spaces, they should inspire. However, the government’s solution to the twin challenges of a shortage of school places and a crumbling school estate is based on cost rather than the long-term value. This has marginalised design and will lead to greater problems for school estates in years to come. Without architects’ involvement, school environments will be left to those with little appreciation of the positive effect good design can have. In this scenario, it is our children and teachers, who will miss out.

Our driver for demanding better use of resource to improve our school building stock is to provide the best education we can for our children and future generations. It is our belief that you cannot effectively design a school building without fully grasping the education priorities, common bonds, sense of purpose and shared understanding that the school community holds dear. Architects’ interrogative mindset makes them ideally placed to extract this knowledge and use it to create great learning environments.

The ‘school’

Schools are communities, not just buildings. But what do we mean by community, and how then do we create the best possible building to house it?

Smith¹ (2001) looks at community in three ways:

- ‘Place’ as a geographical area where people have something in common;
- ‘Interest’ where people share a common characteristic such as religion, belief or ethnic origin; and
- ‘Communion’, which is a sense of attachment to a place, group or idea.

These three strands clearly overlap in schools. The building and site provide the ‘place’ and this is often the image people have when they think of a school. But equally, the ‘interest’

CASE STUDY #1
WILLIAM PERKIN CHURCH OF ENGLAND HIGH SCHOOL
FEILDEN CLEGG BRADLEY STUDIOS

William Perkin Church of England High School was designed to meet the local demand for secondary school places. The school for 1,450 students is the combined initiative of Twyford Church of England High School, the London Diocesan Board for Schools, and the London Borough of Ealing. To meet a very tight programme it was constructed using CLT and is the UK’s largest timber building. The building’s inspirational interior is characterised by dramatic top-lit spaces and exposed timber surfaces.

**Client**
Twyford CofE High School, the London Diocesan Board for Schools, and the London Borough of Ealing

**Budget**
£18 million

**Location**
London

**Internal space**
10,654 m²
element is about a common purpose and a commitment to delivering high-quality education and the ‘communion’ is a sense of belonging and identity that a school engenders in all those who work and learn there. Schools are the places that convey the meaning and importance of learning. They could hardly be more important and correspondingly the role of excellent building design in improving schools should not be underestimated.

Quality of space

A well-proportioned classroom which has appropriate storage, with just the right amount of display, is flooded with natural light, has good acoustics, no glare, good air quality, a comfortable temperature, sufficient space to accommodate a range of activities for the right number of students (we could go on…) will improve educational outcomes. In other areas of life quality of space is taken as a given – when we move house the first thing we do is personalise it to make it feel like home. Even Michael Gove, in his new role as justice minister, has publicly recognised that prison buildings influence their inmates’ behaviour (how ironic that his previous claim as education minister noted that a building did not make a school, rather the teachers did).

In higher education there is recognition that attracting the best students requires investment in improving the quality of their teaching space. Similarly, the independent school sector is acting more like higher education institutions as they must compete against other fee paying facilities to ensure their survival. They recognise that quality of space is one important way to set them apart from their competitors.

Government policy is very ‘evidence’ heavy, requiring quantitative rather than qualitative assessment of space. However, the Holistic Evidence and Design project summary published earlier this year by Professor Peter Barrett and his team concluded that the physical characteristics of a classroom impacted the learning progress of pupils by up to 16%. This study builds on the conclusions of the earlier 2010 Schools Environments Survey, which showed school environments have a positive impact on pupil behaviour and wellbeing in addition to the teachers’ ability to teach effectively. Indeed 95.8% of the teachers agreed that the school environment had an influence on pupil behaviour.

The Education Funding Agency has taken a technical approach to addressing this through the development of baseline specifications (i.e. measurable quantities such as ventilation, daylight, acoustics, etc). However, the value of the architectural quality of space is not reflected. Many factors contribute to raising educational attainment in schools with great teaching being the most critical. Yet the research evidence also shows that good learning environments play their part, supporting staff and students to give their best. The quality of space is more important than its simple provision.

The politics

The Education Acts of 1870 and 1902 (later bolstered by the 1944 Act) saw the introduction of state responsibility for compulsory education. Ever since, education has been a political football. The introduction of a National Curriculum in 1988 and the formation of Ofsted in 1992 was a manifestation of the government’s need to show it was in control of education. Today, schools are being encouraged to control their own curriculum, budgets and sites through the creation of academies.
Hilden Grange Prep School was experiencing falling numbers on roll. An innovative new building by Hawkins\Brown has kick-started the school's transformation. Temporary classrooms have been replaced with a simple but innovative building that frames and overlooks vibrant play space. It provides new teaching as well as specialist science, art & design and learning support areas. Cross-laminated timber construction enabled the entire project to be completed in a single academic year.
and free schools, however they remain accountable through their performance in exam tables. While schools may appear quite different in their vision and ethos, most will be delivering a fairly narrow set of subjects in a fairly traditional way.

A school can rebrand, change status, merge, expand but its primary focus is always to educate. The good architect understands this and ensures that a shift in political emphasis from creative subjects (art, music, drama) to core ‘academic’ subjects (maths, english, science, humanities) can be accommodated without having to knock the building down and start again – ideology and flexibility.

Architects understand, for example, the need for enough small group rooms to accommodate an increasing cohort of children with English as an additional language or special educational needs. Similarly, form spaces and staff areas need to be of a significantly high quality so the school can continue to attract students and staff in an increasingly competitive market.

One area where schools have changed considerably is in the use of information and communications technology (ICT) to aid teaching and support management. Technology is not simply a driver, but an enabler and a school building should be designed with it rather than around it. The use of ICT has created a different relationship between home, school and the wider community. It has enabled learning to take place anywhere and at any time – a fundamental principle of the Hellerup School in Copenhagen – whereby each child is given a laptop empowering them to undertake their education anywhere. The pressure on schools to deliver is immense and it is inevitable that, with 24,000 schools in England, some will be flourishing, some will be managing, and some will be failing. This context is important because the funding and space allowance allocated to a school will not take account of where it is now and its future hopes. It will be for the architect to work with the school to understand the needs and aspirations to create spaces that work for the long term.

The ‘school project’
Although all schools generally have similar components, no two schools are exactly the same. ‘Distinctiveness’ arises from the ethos and estate rather than from the curriculum; it’s not what you learn but how you learn it.

In every project (not just schools) we must get the brief right at the outset to understand how each building is used and needs to perform. Architects are agile in their ability to work with clients and draw out this information to ensure the best solution is provided. Problem solving is what we are used to doing and is what we thrive on.

Within the education sector there are many variants. Funders vary – local authority, Academy Trust, individual school (independent and maintained), Education Funding Agency. Schools themselves vary – all age, SEN/primary/secondary, UTC, studio, faith. And the scale of projects vary – masterplanning, new build, refurbishment, small scale, standalone, as part of a mixed use development.

But what is common among all school projects is that every venture needs to maximise scarce resources: more bang for your educational buck. And it is the ability of architects to make every project have a big impact, whether that be organisational change or cultural change, which is part of the process of re-thinking spaces.
CASE STUDY #3
CHARLES DICKENS PRIMARY SCHOOL
MACCREANOR LAVINGTON

At Charles Dickens School in Southwark, additional learning spaces are created within the existing small halls, avoiding structural works. These ‘micro-projects’ can be undertaken during school holidays to minimise disruption and are complemented by new-build halls, large enough to accommodate whole-school events. The first micro-project was completed this summer, with works undertaken by a team of shop-fitters; six new classrooms were delivered after three weeks of site work, allowing time for teachers to set up classrooms before pupils returned.

Client
London
Borough of Southwark

Budget
£3 million

Location
London

Internal space
2,495m²
The challenge was to create an innovative building to support a new way of learning within a tight timescale and budget. UTC Cambridge combines a new syllabus and a new way of teaching in a unique environment created from standard briefing areas and components. The ground floor showcases social learning. The first floor contains formal learning classrooms. The second floor reflects the UTC’s specialism in a highly flexible open plan ‘super lab’.

**Client UTC Cambridge Trust**

**Budget**
£9.2 million

**Location**
Cambridge

**Internal space**
5,300m²
Sharing the expertise

A school’s ability to adapt allows it to support a variety of teaching methods in the long term. In this regard, architects’ experience in other sectors can provide valuable lessons. Google, for example, has pushed the boundaries with their unique take on the traditional office, crafting spaces that promote collaboration and encourage creativity. All designed by prominent architects, the Google offices, or ‘playgrounds’, have an inherent playfulness and openness to create stimulating environments conducive to innovation. Architects are uniquely placed to apply this design knowledge to improve school design.

Equally important to the process is the client. By client we mean both the funders and the users who bring both political and operational expertise. Bringing everyone together allows learning from each other. The sum is greater than the individual parts. There are many different types of school nowadays, all with similar standards required. However, the design thinking is entirely different with each model. Early involvement of an architect will allow utilisation of best practice, including learning from other sectors, to provide creative ways of developing school solutions for all types.

Lessons learned

We must learn lessons from completed schemes, no matter how big or small. Upon project completion lessons should be learned about the process through a Post-Occupancy Evaluation (POE). Did it deliver what the client asked for? Did they ask for the right things or, with hindsight, should they have briefed differently? What do users think? Has it made a difference to the way they feel about their school? Has their education experience been enhanced by better quality space? These are questions which apply to all school projects.

It is our belief that POE should be a requirement for all, to collate our collective knowledge and ensure the industry learns from previous experience, both good and bad. The school estate itself is the longest-term player in this game, existing for longer than changes in staff, ideology and government, and so should be thought about in a longer timeframe. All children attend school for longer than a government is in power, and their educational experience often spans several changes in pedagogy and policy.

However, the chances are they will see only minimal change in their school’s built environment. It is important that design continues to grow and improve. Learning lessons from completed schemes is the most valuable way of influencing change and further enabling the architecture to support the education process.

So if schools are unique communities that will change and develop over time, architects are well positioned to provide the right environment within which they can flourish and grow. We just need the funding, procurement and design process to be flexible and forward-thinking enough to enable this on every project.

‘All children attend school for longer than a government is in power, and their educational experience often spans changes in pedagogy and policy’

Above UTC
Cambridge, Hawkins\Brown

TIM CROCKER
# GREAT SCHOOLS

CHAPTER TWO

FUNDING

BY MAIRI JOHNSON, AECOM
Anyone reading this document will have a desire for school environments to be of excellent quality – rich, varied, spacious and durable. But these attributes come at a cost. The current regime for capital funding for schools in England still exists in the twilight of austerity with no sign of a new dawn any time soon. It’s worthwhile understanding the drivers behind our existing system so that the best use can be made of the money that is available. But it’s also interesting to look at models from other parts of the world and speculate about whether they could be used in the UK.

The mechanisms for determining the amount of capital funding available to schools and the ways that this funding might be accessed have been consistent since 2011, when Michael Gove was secretary of state for education in the coalition government. The array of funding streams can give the impression that the Department for Education has a piecemeal approach to school environments that doesn’t add up to an overall strategy but there is an over-arching rationale behind it all.

When the coalition government took office in 2010, informed by the 'I’m afraid there is no money' note left by Liam Byrne, former secretary to the treasury, there was a review of everything that public money was spent on and a consideration of how the country could work with less financial support from the centre. The Department for Education’s total budget was protected but plans were made for a significant reduction in the amount of capital funding that would be spent on the school estate. This was done in the belief that it would create a system that was fairer than the Building Schools for the Future (BSF) programme, which was deemed to be distributing funds too unevenly around the country. In addition, BSF was charged with creating undue influence on schools
from central and local government and generally spending too much on school buildings. The review of school capital spending pinpointed two urgent pressures: the need to tackle the poor condition of many school buildings and the necessity of increasing the number of school places in certain parts of the country.

Alongside this, Gove wanted to see equality of opportunity, in particular that publicly funded schools should have as good a standard of education as those that charged fees. This would be achieved by increasing the autonomy of schools to offer the best education as they saw it, free from local authority control. The introduction of free schools and the drive to encourage high-performing schools to become academies are manifestations of this policy. Parents would be able to choose the school that best suited their child from the variety available and schools would compete with each other to attract pupils. Ofsted would maintain quality checks and ensure that any school that fell below an acceptable standard was swiftly improved. If a school closed because of falling pupil numbers because other local schools were more popular, this was seen to be the result of a healthy market. The quality of a school premises was not seen as an important contributor to the school’s quality of education. Teaching and leadership was deemed more significant. This was justified by noting that many private schools have unimpressive premises but are still able to achieve excellent results.

In this new policy landscape, the role of central government was to fund accommodation at a minimum standard, based on specific need. Schools that had buildings in a very poor state of repair could receive funding through the Priority School Building Programme or the Academies Capital Maintenance Fund. Local authorities that needed to increase the supply of school places could apply for Basic Need funding that they would use to extend schools in their area. Free schools were treated on a case-by-case basis but were only funded to provide the same minimum standard, lowest cost environment as other schools. It was seen as being up to individual schools to make the most of what they had and to craft how they would deliver education from their premises, rather than central government. There would be no equivalent of BSF’s Educational Transformation under the coalition government.

The overriding rationale then, is to empower schools and liberate them from government control – whether that comes from central or local government. School premises are seen as a neutral backdrop to education, not its direct enabler. Central government sets standards and funds accommodation to a minimum level. Local government retains responsibility for providing sufficient school places to meet demand, assisted by funding from the centre.

If a school wishes to improve its environment beyond the minimum, then it is up to the school community or Academy Trust to raise the money for this through grants from external bodies, sponsorship, fundraising or careful management of reserves – much like the cultural sector. Raising money by selling off school land for development is rarely a viable option because of the strict measures in place to prevent the loss of school playing fields. Brand new schools on new sites may be able to generate additional money through planning gain measures or by designing the school as part of a mixed-use development.

It is difficult for schools to have large ambitions within the current funding climate. English schools
are not resourced to spend time raising substantial amounts of money. Achieving the best environment possible becomes a matter of adapting existing buildings, imaginative use of available funds or accumulative change as a result of small projects paid for from routine maintenance budgets. This is where an injection of design expertise can be so valuable – imagining the same place different can be very difficult for people outside the design professions. But are we stuck with this situation forever? This regime certainly seems to be entrenched for the foreseeable future, but other places in the world are tackling the same issues in different ways.

In the USA, schools are funded and managed in school districts. These are separate from other forms of local government and have their own tax-raising powers. The taxes raised from the local population are used to manage the schools day by day. If school districts wish to fund a programme of improvements beyond their annual tax income, then they can borrow money against their future tax revenues. This mechanism is called a Bond Programme and requires local voters to vote in favour of the school district taking on the debt and also the intended use of the money.

Spending on schools is popular and as a result substantial bond programmes tend to be voted through. New school facilities seem generous to the UK, so much so that universities are concerned about how they can meet students’ expectations for the quality of learning environments and sporting facilities. This system leads to a very close relationship between schools and their communities. School districts prefer to spend their funds within their locale, so schools are able to establish a close relationship with local suppliers. This is particularly useful for architects and builders who will be local to the school they are creating and will have a detailed dialogue with the teaching staff and the managing school district. They are also likely to be asked to do further work to a school, if the need is identified.

Could this ever happen here? Last year’s referendum on Scottish independence set in train a series of events that might just mean that it could. The Scots voted ‘No’ but the subsequent arrangements for devo-max mean that precedents are being set that could be implemented in new regional governments in England and in Wales and Northern Ireland. Scotland already has full control of its education spending and its standards and priorities differ from England’s. The Manchester City region is making serious plans to operate as a regional government and it could be followed by other parts of England. In Greater London, mayoral hopefuls have called for an independent body to oversee education in the capital.

If these regional governments come about, they are likely to have some tax- or rates-collecting powers and any funds that are raised would probably be ring-fenced for spending locally through local businesses. As for the design of schools, regional government might not be required to follow central government guidelines for space standards, etc. Central government still produces guidance on school design via the Building Bulletins but most of this information is not a legal requirement.

Could this really be the future? I think it could. It’s difficult to predict another chain of events that would lead to a significant change in the amount that central government is prepared to pay for school buildings or a change in the size of schools. As for when it might happen – don’t hold your breath.
THINKING LONG-TERM

BY LORNA RYAN, HAWKINS BROWN AND ALEX WARNock-SMITH, URBAN PROJECTS BUREAU
The current political and economic climate means all new schools will be academies or free schools with increasing independence to manage their own assets. Schools and education providers must therefore make most of the resources they have to plan ahead and to prepare for future challenges. In the procurement of new schools, the refurbishment of existing buildings and the development of campuses, architects are the key professionals to lead this process.

Feasibility studies
A detailed feasibility study is an essential design stage in which architectural thinking can help reveal financial and qualitative values and risks, setting in place the structure and DNA of a project. It is at feasibility stage that the ‘brief’ of the school building is developed, along with options for the form and spatial organisation, allowing the education provider or group of staff and students to plan how best to spend their money.

At a higher level, the feasibility study allows the project funder to assess different forms of procurement, financing models, construction systems and approaches to a site in an integrated manner. Pros and cons of different approaches regarding cost, time and quality can be considered before committing to a particular route. Recent school buildings that have undertaken a detailed feasibility study have often achieved better-quality buildings in less time and for less money.

Spatial strategies
Many of the problems facing schools relate to a lack of strategic thinking and long-term vision. Through decades of changes in policy and transformations in funding, school buildings have become decrepit and campuses have become fragmented. Teachers and school administrators...
Presently bisected by a through-road, the project reconfigures the campus with a new series of shared internal and external learning and events spaces, creating an active heart to the school and the surrounding community. As part of the spatial strategy, the school was awarded an Academies Capital Maintenance Fund, which led to the design and construction of a new sixth form study block. The building provides extra teaching, study and events spaces for sixth form students.

**Client**
Graveney Trust

**Budget**
£1.04 million

**Location**
London

**Internal space**
698m²
lack the skills or knowledge to know how to manage their campuses and deal with the myriad issues they face. A spatial strategy would critically analyse the organisation of a campus and building conditions to identify areas for future development and growth.

It would set out short, medium and long-term strategies for change; keep abreast of innovations in learning and technology, and incorporate financial planning, funding applications and fundraising strategies.

Central to the challenge is the perception that a one-off capital payment from the government to build or improve a facility is the beginning and end of the project (and will solve all the problems of the school estate in one go). It is an attitude that needs to change.

A school building project is never finished – it must be able to constantly grow; to support changing teaching methods – not to mention the ongoing maintenance required to ensure the estate is fit for purpose for future generations. With large capital investment unlikely for the majority of our schools, many decisions will centre on what to do with relatively small sums of money. A masterplan will enable schools to focus spending to maximise resources.

**Campus as a resource**

*I suspect it will become increasingly necessary to investigate how local needs could be used to attract investment. Greater consideration of such potential may need to be given at the due diligence stage when considering a project.*

Mark Ducker, executive principal of the Step Academy Trust, Croydon

In many ways, a school’s estate is an economic territory as much as a physical territory, requiring economic and financial planning as well as physical organisation. It can be a financial burden if badly managed, or a resource if well-planned.

Schools need to be more entrepreneurial in managing their estates to generate alternative funding and revenue streams, through subletting their buildings or selling land for development, for example. This shift in attitude indicates a need to understand a campus, or a site, as a dynamic territory and a resource that needs managing with flexibility and skill, whatever the politics. When we consider inner cities, we see significantly developed areas, escalating land prices and huge market pressure to build more homes and schools. What we don’t see are fully accessible large sites to allow cost-effective new school buildings to be erected.

How then can we ensure schools and their funders are getting the best value for their estates? How do schools ensure they are making best use of space? And, most importantly, who provides this advice? It is known that there is a deficit in both family homes and in education places. Perhaps funding schools through cross-subsidy from housing could be a model, which could provide a viable commercial response to both.

**Adaptation and refurbishment**

The solution to a school’s problem does not necessarily lie in the design of a new building or facility. Adapting and upgrading existing buildings can be a more cost-effective solution than constructing new buildings, especially in lean economic times.

Small changes and interventions can often bring about large benefits. In the example of Charles Dickens School, highlighted in *Future Schools – Innovative Design for Existing and New Buildings*, co-authored by Sharon Wright, the school head faced
The balance of refurbishment and new build for Eltham Hill School was struck through intense investigation to achieve a viable scheme. The project involves retention of the original 1920s building and a listed summer house and the replacement of a 1960s extension with a new three-storey block and sports hall. During construction, the secondary school remained in occupation through careful phasing. Carbon funding was gained by designing the scheme to reduce carbon emissions by 60%. Our partnership with the school has led to a number of initiatives including student work placements; a student leadership conference; construction industry careers events, and a pupil competition to design artwork for the new atrium.

**Client**
London Borough of Greenwich
**Budget**
£20 million
**Location**
London
**Internal Space**
7,300 m²
the problem of how to retain staff with minimal means. Something as simple as redecorating the staff room was a successful way to boost staff morale and transform the school atmosphere. With the pressure to be competitive in the sixth form sector, rebranding existing spaces to appeal to sixth formers can be a more cost-effective and immediate way of attracting students. The alternative, a longer-term investment in new-build specialist sixth form facilities, is beyond the resources of many schools.

Sharing resources
Schools tend to consider themselves in isolation. When there is a shortfall in space, can schools help each other and share facilities? In an ideal world every school would have amazing science facilities, art rooms and sports facilities in addition to the classrooms and teaching space they already have. Sharing facilities among a number of schools could be the answer in some instances, depending on location — inner cities seem logical where they are in close proximity to one another. Architects are well placed to review the larger area and explore the idea of specialist ‘hub’ blocks (eg science, art, or sport) used by a number of schools. This would promote more access to a variety of facilities, and in turn free up space on each school site for more classrooms or play space. It also means school grounds can provide much-needed community space and an opportunity to generate alternative revenue.

Territory and identity
For many schools, movement and access around and within buildings is key to how they timetable lessons and organise classes and group activities. Movement and access are also important aspects in the way a school relates to its surrounding context and community, and schools are increasingly in the position of having to balance considerations of security alongside ideals of transparency and openness to all.

A disparate campus is not only difficult to manage and lead, it can also fragment teachers, students and subjects. In designing the kind of education a school aims to deliver, a campus that supports cross-fertilisation between subjects through clusters of excellence, for example, is a model that might enhance the educational experience, increase competitiveness and attract higher levels of funding.

Components
In examining the big picture, it can be easy to overlook how future planning can work at a micro level. The total cost of a project is largely made up of the sum of each building component. It is well known that savings can be made through the use of standard or easily reproduced components. However, the overall project value can be further increased through the way in which these components are put together. Take for example the façade of Burntwood School by AHMM, where specially designed concrete panels were precast off-site to save time and reduce construction costs.

Through design-focused use of standard components, the strengths, uniqueness and priorities of each school can be expressed and, in addition to cutting the project costs, ongoing maintenance costs can also be reduced. The use of the same components – internal doors, sanitary fittings, windows – would ensure the future maintenance of these schools is as straightforward and economical as possible.

The value of spatial thinking
As a profession, architects have a duty as professionals to safeguard and promote the wellbeing and prosperity of society through the design and organisation of the

Above Tidemill Primary Academy, Pollard Thomas Edwards

‘Adapting and upgrading existing buildings to be easier to inhabit and use, last longer and be more sustainable, can be a more cost-effective solution’ ROBERT GRESHOFF
CASE STUDY #7
TIDEMILL PRIMARY ACADEMY
POLLARD THOMAS EDWARDS ARCHITECTS

Tidemill Primary Academy combines a replacement primary school with the Deptford Lounge, a new state-of-the-art district library which also provides new community facilities. The new academy benefits from increased space and improved facilities achieved through combining uses with the wider community, in a physically and socially integrated environment. The ambitious nature of this co-location of capital projects has provided a hugely popular and well-used public facility at the heart of Deptford.

Client
London
Borough of Lewisham

Budget
£36.7 million

Location
London

Internal space
3,556 m²
The transformation of Burntwood School pieces together a 1950s modernist education campus for 2,000 pupils and 200 staff in south-west London. Within an existing mature landscape, six new pavilion buildings develop the heritage of the existing facilities, orchestrating a system of bespoke constructional components to bring both efficiency and delight.

**Client**
Wandsworth Council LEA, Lend Lease

**Budget**
£40 million

**Location**
London

**Internal space**
19,800m²
Architects have the skills and professional remit to consider a variety of different and often contradictory factors and to synthesise them into workable, sustainable and flexible spatial solutions. Architects’ skill sets stretch way beyond questions of aesthetics and style and the delivery of buildings. They include applying expertise to funding, planning, procurement and management – the multiplicity of considerations that affect and shape the spatial environment – and making sense of them in order to advise on the most appropriate course of action.
#GREAT SCHOOLS

**IMPORTANCE OF GOOD DESIGN**

Drawing a link between architecture and exam results or pupil behaviour is a challenge but architects must force design back onto the agenda. If design continues to be marginalised, we risk producing schools that will fail both our children and teachers.

**FUNDING**

Central government wishes to hand over more power to local schools to control their own resources. The future could see funding raised locally with more power devolved to regional governments.

**THINKING LONG-TERM**

As schools gain greater control of their assets, developing a long-term architectural strategy is crucial. Architects’ early involvement in proposed development plans can ensure a coherent and cost-effective strategy is in place.
‘If regional governments come about, they are likely to have some tax-rates-collecting powers and any funds that are raised would probably be ring-fenced for spending locally through local businesses. As for the design of schools, regional government might not be required to follow central government guidelines for space standards etc. Central government still produces guidance on school design via the Building Bulletins but most of this information is not a legal requirement’
Mairi Johnson, Aecom

‘Through decades of changes in policy and transformations in funding, school buildings have become decrepit and campuses have become disorganised and fragmented. As architects it is our duty to safeguard and promote the wellbeing and prosperity of society through design and organisation of the built environment. Our skill sets stretch way beyond questions of aesthetics and style and the delivery of buildings. It includes applying expertise to funding, planning, procurement and management – making sense of them to advise on the most appropriate courses of action’
Lorna Ryan, Hawkins\Brown & Alex Warnock-Smith, Urban Projects Bureau

‘Government policy is very ‘evidence’ heavy, requiring quantitative rather than qualitative assessment of space. However, the Holistic Evidence and Design project summary published earlier this year by Professor Peter Barrett and his team concluded that the physical characteristics of a classroom impacted the learning progress of pupils by up to 16%. This study builds on the conclusions of the earlier 2010 Schools Environments Survey, which showed school environments have a positive impact on pupil behaviour and wellbeing in addition to the teachers’ ability to teach effectively ’
Carol Lees, Hawkins\Brown & Sharon Wright, Creative Wit
In austerity Britain, the architect’s role in shaping our children’s future is now more important than ever. Through a combination of dwindling public finances and architects’ failure to convey the value they bring, the profession’s influence on school design has waned. The Priority School Building Programme, which replaces the high-minded but flawed Building Schools for the Future, has distilled school buildings to measurable data. It is teachers that make the school, not the buildings, runs the current government’s argument. The Great Schools campaign is a riposte to this narrative. Of course teachers are pivotal, but the campaign’s central message is that, by ignoring the value of design, we risk producing schools that will hinder teachers’ ability to teach and children’s to learn.

Evidence is emerging that shows the value of design. The Holistic Evidence and Design project (HEAD) carried out by Professor Peter Barrett from the University of Salford showed that the physical characteristics of a classroom impacted pupil progress by 16%. If the onus is to be on evidence then this figure cannot be easily dismissed. Owing to the many variables in the education process, a causal link between a nice classroom and good exam results is hard to establish. Perhaps too much emphasis is placed on data. We take tremendous care in personalising our homes. Why? Because a well-designed living space improves our quality of life. Given the universal acceptance of this idea, it seems absurd that we should insist on facts and figures to prove what we know to be true when it comes to schools.

Elsewhere, the exposure of higher education to market forces with the introduction of tuition fees suggests a contradiction in the government’s lack of focus on school design. Universities have realised that state-of-the-art teaching and social facilities attract good students and staff. If the state school sector is to operate more like its private counterpart with increased competition driving up standards, then quality school environments become intrinsic to the overall vision. It is difficult to remain competitive without a well-designed platform for learning. In this respect, the government’s current contention that schools should be a neutral backdrop to education rather than a tool to help improve the fortunes of a school is nonsensical.

Financial hardship is the main challenge facing schools, but it seems that we are in a state of flux rather than settling into a status quo. A possible vision of things to come is already a working method in the USA, where funds are raised and managed by school districts. These entities have the power to raise taxes and borrow against future tax revenue to invest in education. As Aecom’s Mairi Johnson outlines in the funding chapter, this creates a strong bond between schools and the communities they serve. Given the commitment made to devo-max following the Scottish referendum and the knock-on effect that could have regarding more autonomous regional governments, the system or some form of it could be transplanted to the UK.

If this proves to be the case, architects must establish a dialogue with local schools and their governing bodies ensuring good design is on the agenda.

As discussed in this book’s final chapter, architects have far more to offer than immediate interventions in building fabric or classroom design. Working with a school to develop a short, mid and long-term strategy for its campus is one of the ways architects can make a lasting impact on its future. A case in point is Urban Projects Bureau’s work with an Academy School in Aylesbury, which has generated a 30-year plan for the school campus.

One of the most telling anecdotes to come from the Great Schools debate is referenced in Chapter 3. It concerned a headteacher who had secured modest funding to revamp his tired sixth form facilities, but did not have any idea who he should turn to for advice. Calling an architect had not even occurred to him. To make a difference, the profession must be on the radar of people like this. It will not be easy. The education sector was scalded by their experience of BSF, which promised to embody New Labour’s ‘Education, Education, Education’ maxim. But with every school designed from scratch, BSF ultimately proved too costly and bespoke. A more engaged and long-term view is called for that inspires those in education’s front-line and re-establishes the importance of investing in well-designed schools. Architects have a varied and valuable contribution to make regarding education and their message is too important to go unheard.
This report grew out of a conversation between Rory Olcayto (editor) and Will Hurst (deputy editor) of the AJ, and Roger Hawkins of Hawkins\Brown. Earlier this year the report by the Warwick Commission on the Future of Cultural Value found that there are barriers and inequalities in Britain today that prevent equal access for everyone to a rich cultural education. The discussion concluded that such barriers pertain in all education in the UK, and not just in the arts. The varying condition of school and college estates bears witness to this inequality.

Thank you
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