

Winter 2023

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Millmount.



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DISCOVER
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DELIVER

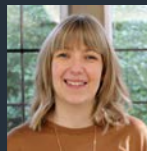
A word from Millmount

As the colder months are upon us and we spend more of our time indoors, the spaces we inhabit mean so much more. What matters to each of us is entirely individual, and considering different user needs to put them at the heart of our designs has always been our approach at JDDK.

Our focus on always pushing the boundaries around using our knowledge, passion, experience and ambition to deliver bespoke designs for clients shines through in this edition of Millmount. We explore how we deliver this people-centred design service for different projects amongst a sea of societal changes. Whether that's breathing new life into heritage buildings whilst protecting their history, how we design and build for our changing climate and economy, navigating legislative changes, and the next phase of rebuilding workplace communities that are fit for the future. Society is navigating a maze of change which requires built environment considerations to flex and adapt – which is something we're very used to.

Our designs have always been informed by our team's passion for their specialist areas. Now more than ever, knowledge of certain subject matters such as sustainable building techniques or understanding the fabric of historic buildings when approaching a retrofit, are increasingly important when designing the buildings of the future. Regulatory standards, the climate and user needs will continue to change in the coming decades, and we have the knowledge that means we can 'future proof' and design with this in mind.

We're really proud to be delivering some highly ambitious projects in the North East and around the UK. Buildings which add value to the planet, region, local communities and users. We hope you enjoy reading about them.



Clair Sanders,
Director at JDDK

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School transformed into homes for vulnerable adults



We have recently completed a major restoration project to convert the former Washington Old School in Albert Place, Sunderland to a much-needed home for vulnerable adults.

The project, which has taken 12-months to complete, is part of a Sunderland City Council-led programme that has delivered scores of new homes across Sunderland.

The Victorian building, formerly known as Biddock School, was built in 1893 and closed a century later in 1993, after which time it fell into a state of disrepair. Following extensive conversion and extension works, the old school building now houses 15 specialist apartments which have been designed for medium to long-term accommodation.

A range of refurbishment, alterations and new-build works were carried out to breathe a new lease of life into the buildings, including the addition of a stunning landscaped courtyard and a new mezzanine floor in some of the apartments, to make the most of the high ceilings of the former school.

Sustainability has been a high priority, with renewable energy used throughout the development with the use of solar photovoltaic panels and air source heat pumps, in a bid to reduce energy bills for residents and minimise carbon emissions.



Updates to housing regulations mean new framework for creativity

The UK government has recently introduced a wave of new legislation which will raise the standard of how UK buildings perform. These regulatory changes are some of the biggest the housing industry has witnessed in the last few decades and their impacts will be significant.



Clair Sanders,
Director at JDDK



Chun Yuen,
Associate

The most major changes include the introduction of building regulations [Part F](#) (ventilation, June 2022), [Part L](#) (conservation of fuel and power, June 2023), [Part Q](#) (overheating, June 2022) and [Part S](#) (infrastructure for the charging of electric vehicles, April 2023). These different parts are designed to act as stepping stones for the industry as we move towards the [Future Homes Standard](#) expected in 2025.

These updates come on top of relatively recent changes to [Part B](#) (fire safety, December 2022), which makes up part of the UK's Building Safety Act, and [Part M](#) (accessibility, June 2021) respectively. This is a significant core of new legislation for the housing industry to navigate, on top of an already long list of existing and incoming requirements.

Chun Yuen, Associate at JDDK, works across our housing projects and sees the new regulations as an opportunity for the industry to be bold about improving the energy efficiency of UK homes. Chun explains: "These updates are changing the way the industry works. Previously buildings had a lot of wasted energy whereas these new standards require buildings to be more airtight. Although disruptive in the short term while the industry adapts, in the long run these changes will lead to more energy efficient buildings with cheaper running costs which is better for owners, users, and the planet. There is a bit of a maze to navigate when it comes to deciding how the different parts fit together but thanks to internal workshops at JDDK we have come up with strategies which mean we can support clients to develop quality projects that tick all the right compliance boxes."

For developers wanting to create quality projects which comply with these new standards, they will need strategies in place before they start creating designs. At JDDK we support clients to identify project priorities and iron out any conflicts between regulations, and the strategy we create from these discussions informs our design and impacts every decision made about what goes where on site. We continually review projects and use our knowledge of the interplay between regulations to navigate the maze that leads to a compliant project whilst keeping the client brief front and centre.

Clair Sanders, Director at JDDK, who leads several of JDDK's housing scheme projects in the public and private sector, added: "To ensure our projects have exceptional character and quality, we don't just consider mandatory standards at JDDK, we refer to relevant voluntary standard guides for each scheme such as the [Nationally Described Space Standard](#) (NDSS), the [Wheelchair Housing Design Guide](#), [Housing our Ageing Population Panel for Innovation](#) (HAPPI), and [Building for a Healthy Life](#). Recent building regulation updates mean the way we incorporate these voluntary guides has changed, as the mandatory standards can impact on areas such as the voluntary space standards. Air source heat pumps, batteries for PV panels, or added insulation for example take up space, which means we need to be more creative with floorplans.

"These changes aren't stopping us from coming up with successful and ambitious designs for our clients though. Understanding the interplay between regulations is the key, and designing within parameters often leads to more creative projects."

At JDDK we have always been ambitious about making the built environment more sustainable. Since publishing our [Sustainability Strategy 20:20](#), we have upskilled our team so they can design to Passivhaus standards, a voluntary benchmark which goes far beyond the performance of what's expected in the Future Homes Standard. You can find out more about [Passivhaus here](#).

There will always be more housing regulation updates on the horizon, but these changes contribute towards the UK improving its housing stock for future generations. At JDDK we help clients consider which regulations are relevant to them, support them to achieve the right balance between them, whilst keeping the client brief at the heart of our designs.



PROJECT UPDATES

Planning permission secured for Yorkshire children's hospice



Revised Planning permission has been secured by our team to extend and refurbish Martin House Children's Hospice located in Boston Spa, Leeds. Following submitting a pre-planning application on behalf of the hospice back in 2019, soft construction works at the site have now begun.

Martin House originally opened in 1987 and was the UK's second hospice for children and young people with life-limiting conditions. The need to enhance the facility to accommodate children's more complex needs led to the Hospice Board interviewing various architects, before awarding the project to JDDK in September 2018.

The construction stage, which is due to be rolled out in three phases over the next three years, will see the creation of a new Wellbeing Centre with specialist treatment facilities, including a hydrotherapy pool, counselling and therapy rooms, alongside improved staff accommodation and new educational facilities. Crucially, the design will allow construction to be phased in line with fund-raising activities and ensures the hospice can carry on operating whilst the development is underway.

“We're always excited to be designing for children. This project allows us to build upon our previous hospice experience, namely Robin House and St Oswald's, whilst also incorporating elements from our previous Children's Centre design experience.”

 **Stuart Franklin,**
Associate Director at JDDK

“

“We are over the moon with Holly Hall Barn and its recognition at the AT Awards. It's a testament to everyone who worked on the project. This beautiful home will be treasured for years to come.”

 **Tristan Cooper**
Associate Director

Hexham barn renovation highly commended at the AT Awards 2023

Nestled in the heart of idyllic Northumberland countryside, the recently renovated Holly Hall Barn has undergone a remarkable transformation, earning Highly Commended for Excellence in Architectural Technology at the AT Awards 2023. With sweeping panoramic views of the Tyne Valley, the former agricultural building has been given a new lease of life by the JDDK team, led by Director Nicky Watson and Tristan Cooper, Associate Director.

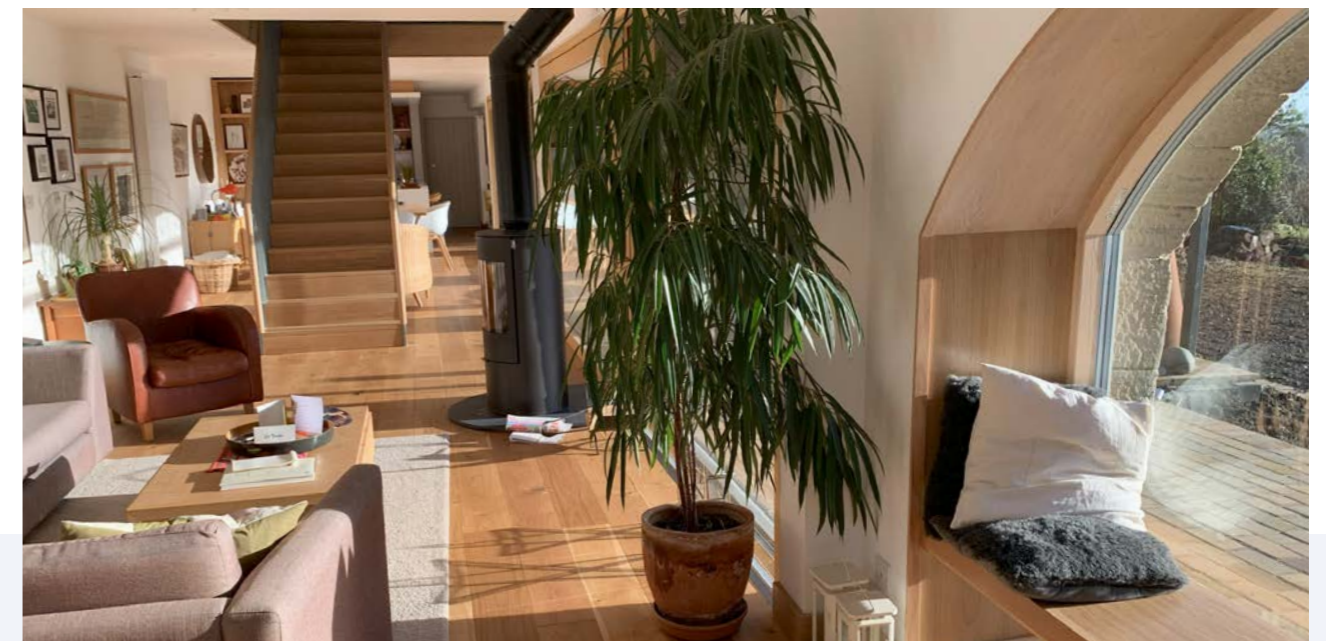
Originally converted from a barn into a single dwelling in 1977, the property has seen few changes since. Recognising its potential, the new owners worked with JDDK to blend the building's historical charm with modern living.

The project scope was extensive, with one of the standout features being the complete refurbishment of the entrance hall. Previously an unwelcoming, cramped space with a spiral staircase and limited functionality, the entrance has been transformed into a bright, airy, and characterful introduction to the home. Functionality was further improved by replacing the spiral staircase with a safer straight flight alternative, and through the addition of a boot room extension which is conveniently connected to the entrance hall.

In the main living space whole sections of the glazed external wall now open behind the barn's original stone arches, blurring the boundary between inside and out. At either end of the room, triple

glazing is set into the arches, which have been lined with oak faced ply. “Floating” oak window seats spanning the width of each arch create inviting and comfortable spaces to sit and look out onto the stunning views over the Tyne valley, the sitter feeling cosseted and cosy, surrounded by the natural wood finishes.

Sustainability remained front of mind throughout the renovation process. High-performance double and triple glazed windows and doors were installed throughout, while the external walls received insulation upgrades. A wood pellet boiler replaced the previous oil-fed system, and there are PV panels on the garage roof. Timber was chosen where possible for structural elements due to its lower embodied carbon compared to steel. Commenting on the sustainable design choices, the AT Awards judges said: “A fine attention to detail with fine modelling and a detailed focus on the PSI values was the driving force behind this sustainable design. Innovative structural solutions involving existing stone buttresses and new metal tie rods have been sensitively designed into the original 1860 barn's structure.”



Development that honours heritage



Samantha Dixon,
JDDK Associate and Accredited
Conservation Architect

Historic England [estimates](#) there are around 500,000 listed buildings on the National Heritage List for England. These listed buildings, some of which we are supporting clients to redevelop, aren't just monuments to the past either, England's heritage sector directly contributes [£14bn](#) in gross value added (GVA) to the UK economy. The monetary, cultural, and emotional value of these historic buildings mean it's vital that when reimagining them, we honour their heritage and take a thoughtful approach to development.

Working with heritage buildings also opens opportunities to create some amazing spaces – some of our heritage projects like Beeswing House and Alnwick Playhouse, are some of the most loved buildings in the region.

I am JDDK's Accredited Conservation Architect, an externally certified title that validates I have in-depth knowledge and experience of working with historic buildings. For organisations looking to transform a heritage building these are the steps we support clients with to ensure they get the best project outcomes.

Heritage Statement

At the outset of a project involving a historic or listed building or structure, it is important to produce a Statement of Significance. This is a process of assessing what is important about the building, its contents and its setting. It describes the building as a whole and its various individual elements, why it is valuable, whether that is aesthetic, communal, historic, or evidential value, and how that contributes to the overall character and significance of the building.

This Statement of Significance is then used as a starting point for the project, which can help to inform how we approach change within the building and develop proposals to meet the client's brief, and at the same time protect the heritage significance. The Statement of Significance is then developed into a Heritage Statement which includes an assessment of the impact of proposals on the heritage setting and significance.

An important part of my role as the Conservation Architect is to use my judgement and experience to assess if any harm will be caused by the proposals and whether that harm can be outweighed by an overall public benefit in the proposals.

The Heritage Statement that is developed is a required document for Listed Building Consent applications and enables decision makers and advisory bodies to understand the impact of what you are proposing on the heritage asset. If done correctly it can help the approvals process run more efficiently.



Beeswing House, Northumberland

Understanding the building

Another role of the Conservation Architect is to understand the behaviour of historic buildings and structures and diagnose any causes of decay.

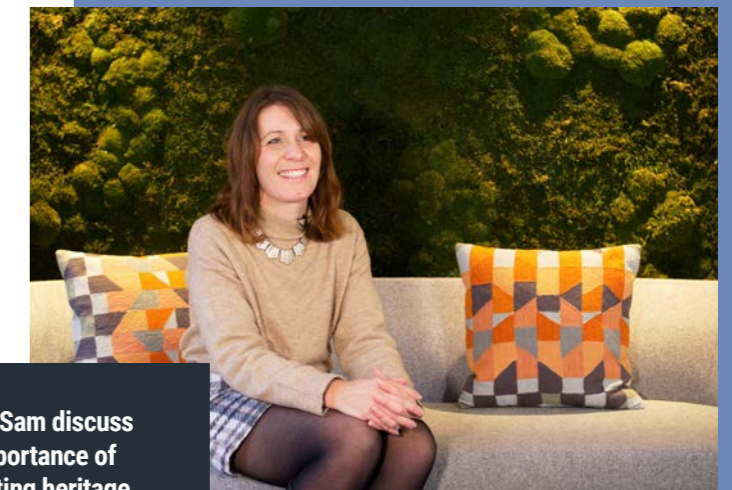
Traditionally constructed buildings (prior to circa. 1920) have solid walls and raised timber floors, which rely on the need to 'breathe' to stay dry. It involves using porous, vapour open permeable materials that allow moisture to be absorbed and then to evaporate quickly, such as lime mortar and plaster. This is in stark contrast to the modern cavity wall buildings we build today, which include the use of non-porous materials with low permeability like cement mortar, which are used to expel water away from the building and create a barrier preventing any moisture absorption into the fabric.

When the two construction types are mixed, that's when problems arise and can cause dampness and decay to the building fabric. Understanding the material fabric of buildings built in different eras is a key part of our role as an Accredited Conservation Architect. My work as an inspecting church Architect, helps with this process. This role includes carrying out a 'quinquennial' inspection, a condition survey conducted every five years, which includes visual inspection and analysis of the existing construction and condition of the building fabric, diagnosing the causes of any failing elements, and then making recommendations based on what repairs need to

be made and when. One of the common problems I witness during these inspections is when the stone has delaminated, this can happen when the wrong type of mortar has been used for repointing or repairs. Generally, churches will be solid stone wall construction, and if repointed with a modern cement, the moisture can't be absorbed by the mortar, and the stone will take the water on instead. If a frost comes, the moisture within the stone will expand and delaminate the face of the stone. This can leave the stone vulnerable to further decay, so avoiding this damage in the first instance is essential.



Alnwick Playhouse, Northumberland



Watch Sam discuss
the importance of
protecting heritage

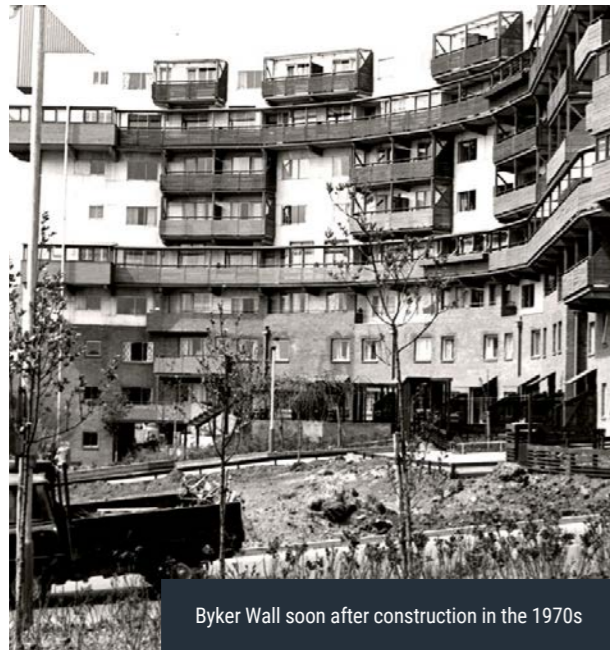
Watch now



Current Grade II Listed Byker Estate



CGI of regeneration plans for Grade II Listed Byker Estate



Byker Wall soon after construction in the 1970s

The value of specialist knowledge

For any developers looking to work with a heritage building I would strongly advise they engage an Accredited Conservation Architect early in the process. To achieve this title, we must go through a rigorous assessment process to demonstrate a significant level of experience working on heritage projects and we have to prove an understanding of the core principles of conservation and how to apply them.

Using an Accredited Conservation Architect will ensure assessments of significance are carried out correctly, aligned with the national planning policies, and more likely to be agreed upon by the Conservation Officer which can reduce the time it takes to get the approval needed.

Employing specialists at the start of a conservation project pays off both in terms of the quality of the build, the long-term cost of maintaining the building, and protecting any historical significance and value that building holds. Breathing new life into heritage buildings whilst honouring the historic stories they tell will not only maintain, but enhance, these valuable assets, meaning they will be here for future generations to appreciate.

Byker Community Trust, Karbon Homes

We are currently working with Byker Community Trust, part of Karbon Homes, on updating the external environment of the Grade II* Listed Byker Estate.

After carrying out our initial research and assessment we identified the main significance of the Byker Estate was not just in its visually interesting aesthetic, but also in the innovative way it was designed, by the acclaimed architect Ralph Erskine in the 1970's. Ralph believed the estate should be designed with the community for the community, and set up his office in the middle of the estate so residents could pop in and talk about what they wanted their community to look like. This level of public consultation was unheard

of in the 70s, and his approach has no doubt influenced attitudes around public consultations and social housing today. Considering the feedback he received, he developed the estate separating it into eleven neighbourhoods.

In keeping with the significance of the project today, we have been engaging the Byker Estate residents in our proposals much like Ralph did in the 1970s. We divided the project into the same eleven neighbourhoods, and after liaison with the residents and Council's Conservation team, we have agreed designs and submitted a planning application for the first neighbourhood. The project feels like it has come full circle, as our co-founder David Kendall was an apprentice on the project with Ralph Erskine in the original Byker Estate designs over fifty years ago.



CGI of regeneration plans for Grade II Listed Byker Estate

Arts & Crafts: The human experience and contemporary architecture

William Morris, whose timeless designs feature as part of the interiors of homes across the world, famously declared, "have nothing in your house which you do not know to be useful or believe to be beautiful". Morris, alongside other artists such as John Ruskin, is still celebrated for his role in inspiring the Arts and Crafts Movement, which grew to become an international trend born out of mid-19th century Britain.

Brought to life by many architects over the years such as Edwin Lutyens and William Richard Lethaby, the movement has had a significant influence on architecture and design. It began in response to the rise in factory production of 19th century, at a time when the decorative arts was awarded relatively low status and marked a change in how society valued how things were made.

The influence of the Arts and Crafts core principles is not restricted to the past. Today, they continue to influence the design of buildings that go on to have a sense of place and are expressive, being able to communicate with their users. Recently, we have seen how projects like ['Humanise'](#) are acknowledging people's desires for better connections to our built environment, and for buildings to bring joy for hundreds of years to come, instead of building for short-term commercial gain.

Our founder, Jane Darbyshire, was heavily inspired by the Arts and Crafts movement in her architecture, and over 35 years since JDDK was established, some of our projects are still influenced by the movement today.

Here, we explore its lasting legacy, and how the human experience remains at the forefront of our decision making in design, to make sure we always create buildings that are rooted in their location and have a lasting impression with everyone that passes through them.



Alison Thornton-Sykes,
Principal Architect



Nicky Watson RIBA,
Director

Arts and Crafts influenced updates to Jesmond Dene House

The look and feel

Many well-known Arts and Crafts buildings, such as Blackwells in the Lake District, embody how we typically envision how buildings that are inspired by the movement might look. However Arts and Crafts is not only a stylistic movement, and applying the principles of Arts and Craft design in contemporary architecture does not mean slavishly following an architectural style, or look, of the past. In fact, one of the core principles of the movement was to be free of an imposed architectural style. Instead, applying Arts and Crafts thinking creates architecture that: responds to its place; is well crafted in its construction; and meets the needs and values of its inhabitants. It is those things that drive how a building looks and feels as well as enabling a building to communicate with its users.

For example, views and how they are framed by windows or open glass, anchor a building in its landscape. And a landscape can be amplified by the flow of a space, using local materials to hold a building in keeping with its surroundings. These characteristics communicate, speaking to you as part of your experience when you're within a space, and good design vitally creates a dialogue between place, building and people.

Influences from the past

Some of Jane Darbyshire's designs are easily recognised today thanks to the inspiration she drew from the Arts and Crafts Movement. This influence was not only due to stylistic features such as use of local and natural materials, but also due to how she used Arts and Crafts design principles to ensure that the user feels connection to a building and its surrounding area. Jane applied the principles of the movement in a subtle and contemporary way that brought the best out of client briefs across a mix of projects, by putting herself in the shoes of an individual that will be experiencing a building.

This is especially seen in Jane's innovative hospice designs. St Oswald's Hospice was one of the practice's early projects, where the building's features and detailing such as dormer windows and chimneys, give the building user a real sense of being within a "home" where they can feel safe and welcomed.

Another forward-thinking approach to design that used the human connection principle of Arts and Crafts was Jane's work in housing estate regeneration. Housing estates were suffering from a lot of

deprivation and Jane made developments to bring more humanity back into them after their original 60s and 70s machine-led design, by instead using people focussed thinking. Jane's designs brought a human scale to the houses, often focusing on front door areas with big eaves hanging over to give just a little bit of shelter. Simple ornament was incorporated using patterning and texture of materials. All creating a friendlier and cosier user experience, because we all deserve that from a home.

We still hold these influences and principles after over 30 years practicing and learning from Jane and our former Director, David Kendall. They both instilled in us that every project must be approached with an understanding of user desire and need whilst responding to a site's characteristics and locality, creating a sense of place with the final results. Putting the end user at the heart of the build is key, while crafting the detailing and expressing the materiality of the building's components also create a connection between user and place.

Today, that learned approach is layered with other elements. We're now designing in a society that has sustainability goals, a net zero agenda, new health and safety and fire regulations, as just some examples, but the core principles passed down through generations remain steadfast.

The Arts and Crafts approach in contemporary in practice

We have been privileged to work on some Arts and Crafts movement buildings, such as Jesmond Dene House, where as well as conservation of the old, we have been able to respond to the original architecture, in the spirit of the movement, with modern extensions where natural materials and the skills of craftsmanship are celebrated. However, it is also interesting to look at some of our buildings which aren't obviously Arts and Crafts at first glance but have design principles shared with the Arts and Crafts movement, that lift the design to be something special.

Albert School

A recently completed scheme in Sunderland, Albert School, is a restoration project which saw the conversion of an old school building into homes for vulnerable adults. The original Victorian building remains alongside new contemporary extensions, designed with Arts and Crafts principles throughout. A cream coloured brick is a modern response to the Victorian red brick, and it has been detailed with 3-dimensional patterning that brings simple and human scale ornament to the building in a modern way. The roof parapets and eaves are crisply detailed, the roof incorporating modern photovoltaics. The apartments are designed with visual and physical connections to the central garden and treed landscape surrounding the site. These details together create a multi-sensory experience for the user and help them to feel connected to their space in a way that enriches quality of life.



Albert School housing, Sunderland

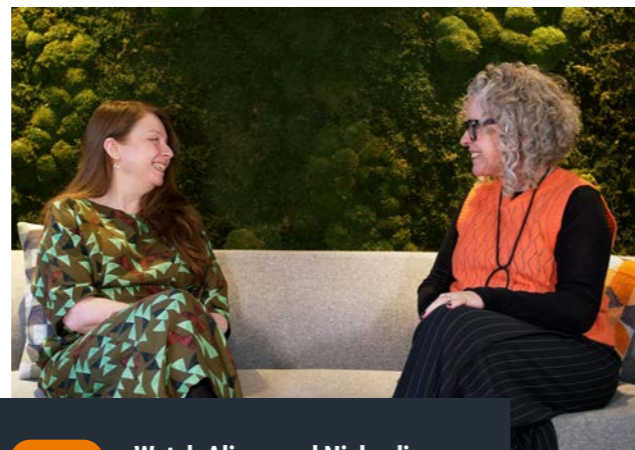
Rivergreen Centre

The Rivergreen Centre's architecture has a contemporary look but embodies many of the principles of the Arts and Crafts movement. The building communicates with its users, thoughtfully expressing the materials it is made of and their careful detailing telling the viewer how the building "works". A vast temperature controlling rammed earth wall was created from site materials, and sits alongside the exposed timber structure, connecting users of the building to the outside. Stained glass windows bring ornament into functionality - a classic Arts and Crafts design technique.

How buildings communicate over a lifetime

A finished building speaks back to the people using it, for decades after it was built. Each detail can and should communicate something about where the building is and where its features have come from - its sense of place. Design can root a building in its local vernacular, and we design in response to that context. The enduring qualities of design are a form of communication and build those all-important connections between building, place and people.

Many buildings today were designed for one purpose and the architects could never have imagined how they would end up being used in the future. A stately home might be converted into a wedding venue, a brewery may be converted into an office, or a church into a restaurant. Architecture is simply a platform for the human experience and the fundamentals of the Arts and Crafts movement only enhance this, using its guiding principles to relate the building to its context and provoke a meaningful and positive human response to spaces and places.



[Watch Alison and Nicky discuss the influence of Arts and Crafts on contemporary architecture](#)

Watch now



Rivergreen Centre, Durham



Rivergreen Centre landscaping

Passivhaus: The future proof home



South Tyneside Homes
Passivhaus standard housing

 **Adam Vaughan,**
Director, Certified Passivhaus Designer,
Trustmark accredited Retrofit Coordinator

 **Tristan Cooper,**
Associate Director, Architectural Technologist,
Certified Passivhaus Designer

Passivhaus is a low energy building standard which provides a framework for designing and building, comfortable and energy efficient homes. Although a large number of Passivhaus certified buildings have already been completed in the UK, the adoption of the standard has been gathering pace in recent years. Clients recognise that Passivhaus buildings can reduce fuel bills and help to decarbonise the built environment.

As we are currently delivering our first Passivhaus project in partnership with a social housing client in South Tyneside, we are beginning to see how builds to this standard push the boundaries around making the built environment more sustainable, in line with our Sustainability Strategy, developed to match these ambitions. Written at a time when awareness of climate change was gaining momentum, and with many local authorities declaring climate emergencies and setting net zero targets, our strategy recognised that Passivhaus was going to be a vital tool for us to offer our clients.

How does it work?

Passivhaus addresses the 'performance gap' often seen in traditional builds, through a combination of accurate energy modelling, robust detailing and high-quality construction. Our certified Passivhaus Designers are using the Passivhaus Planning Package (PHPP) to accurately model the performance of buildings, and to demonstrate that the Passivhaus criteria are met. There are several factors that we need to consider to deliver the Passivhaus standard cost effectively.

Orientation: One of the early design considerations is the orientation of the building. Passivhaus principles require us to think about the path of the sun across a site to maximise solar gain (heat acquired from the sun), as well as what shade is needed in the warmer months. Looking through this lens, we often place living rooms with bigger windows on the south elevation to make the most of any passive solar gain from the low winter sun and provide external shading to prevent overheating in summer.

Form factor: The next consideration is form factor which is a measure of how compact a building is. Heat is lost from external walls, roofs, and floors, and more compact buildings have relatively lower heat loss areas. Terraces and apartment blocks can often have a lower 'form factor' which means we can reduce how much extra insulation is needed. Optimising a building's orientation and form factor early in the design process can help to deliver Passivhaus cost effectively.

Air tightness and ventilation: The airtight building envelope of a Passivhaus means that heat loss is minimised and cold draughts avoided. To further reduce energy use, Passivhaus buildings always have a ventilation unit (MVHR) to provide a constant supply of fresh air and to recover heat from exhaust air. This system ensures excellent indoor air quality, and because the (triple glazed) windows don't need to be opened for fresh air, Passivhaus homes are typically quieter too. Of course, there's nothing to stop users opening windows if they wish!

Quality assurance: Many people don't realise that Passivhaus is also a quality standard. Projects are independently certified, and there is a rigorous checking process which continues through the design and construction phases.

“
Passivhaus is proven to provide an energy efficient alternative in terms of residential development and this small-scale project will allow us to see the impact the technologies have on tenants' lives.

Innovative social housing with South Tyneside homes

The energy efficiency of Passivhaus design is one of the reasons why our client, South Tyneside Homes, chose to adopt the standard for new homes at their proposed pioneering Reynolds Avenue project. They want to keep utility bills down for residents, whilst also minimising their carbon footprint.

As the project enters its planning stages, Simon Mercer, Asset Manager at South Tyneside Homes, explains more.

“South Tyneside Homes on behalf South Tyneside Council are committed to providing energy efficient homes for our residents and tackling fuel poverty. We have made a commitment to address carbon emissions in the borough and are taking all necessary steps to make the Council carbon neutral by 2030 through our climate change strategy and action plan.”

He continues to say “We will use this scheme to monitor and review the impact of the systems within the homes to help inform future development opportunities. As technologies change, we need to ensure we are developing homes that are fit for purpose in the future and meet the needs of our tenants with a cost-effective strategy.”



South Tyneside Homes
Passivhaus standard housing

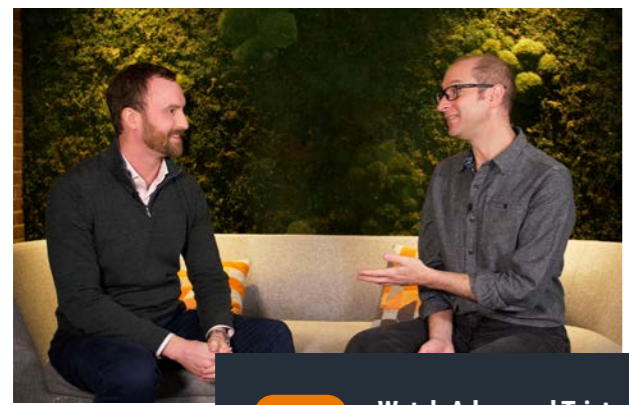
What are the challenges?


One of the main challenges when designing a Passivhaus building is meeting the high standards. Due to the focus on energy efficiency, a lot of consideration goes into minimising the energy lost through the junctions between two parts of the building fabric called thermal bridges. Once the heat loss from these thermal bridges is added together, this can significantly impact the energy efficiency of a building.

We've reframed this challenge into a specialism, as our Certified Passivhaus Designers can carry out thermal bridge calculations in-house using our thermal bridge modelling software, Flixo. This isn't just useful for Passivhaus projects either – building regulations now require thermal bridges to be modelled, albeit to a lower standard. Many architects subcontract this stage of a project, but having this service in-house means we can offer clients a more joined up, better value, design service. Our team doing the thermal bridge calculations also better understand the performance of the building overall.

Any competent contractor can deliver Passivhaus designs on site so the skills of the wider construction industry shouldn't be a barrier to opting for this route. What it does require is an understanding of the processes and why a different approach is important. The level of supervision on site is also key. For example, if a tradesperson drills a hole through an airtight barrier and it doesn't get sealed before it is covered over, then the building will likely fail the rigorous air tightness test. JDDK are supporting our clients by offering them introductory sessions to Passivhaus and helping their site managers and tradespeople to understand issues such as airtightness.

A Passivhaus project requires more 'upfront' design, with key decisions made earlier in the process than many designers are used to. This means that stakeholders in the project team who provide technical input, like Engineers and Architectural Technicians, will likely need to be involved at an early stage. It's also vital to appoint and liaise with the Passivhaus Certifier as soon as possible.



 Watch Adam and Tristan discuss the impact of Passivhaus design

[Watch now](#)

What impact will it have?

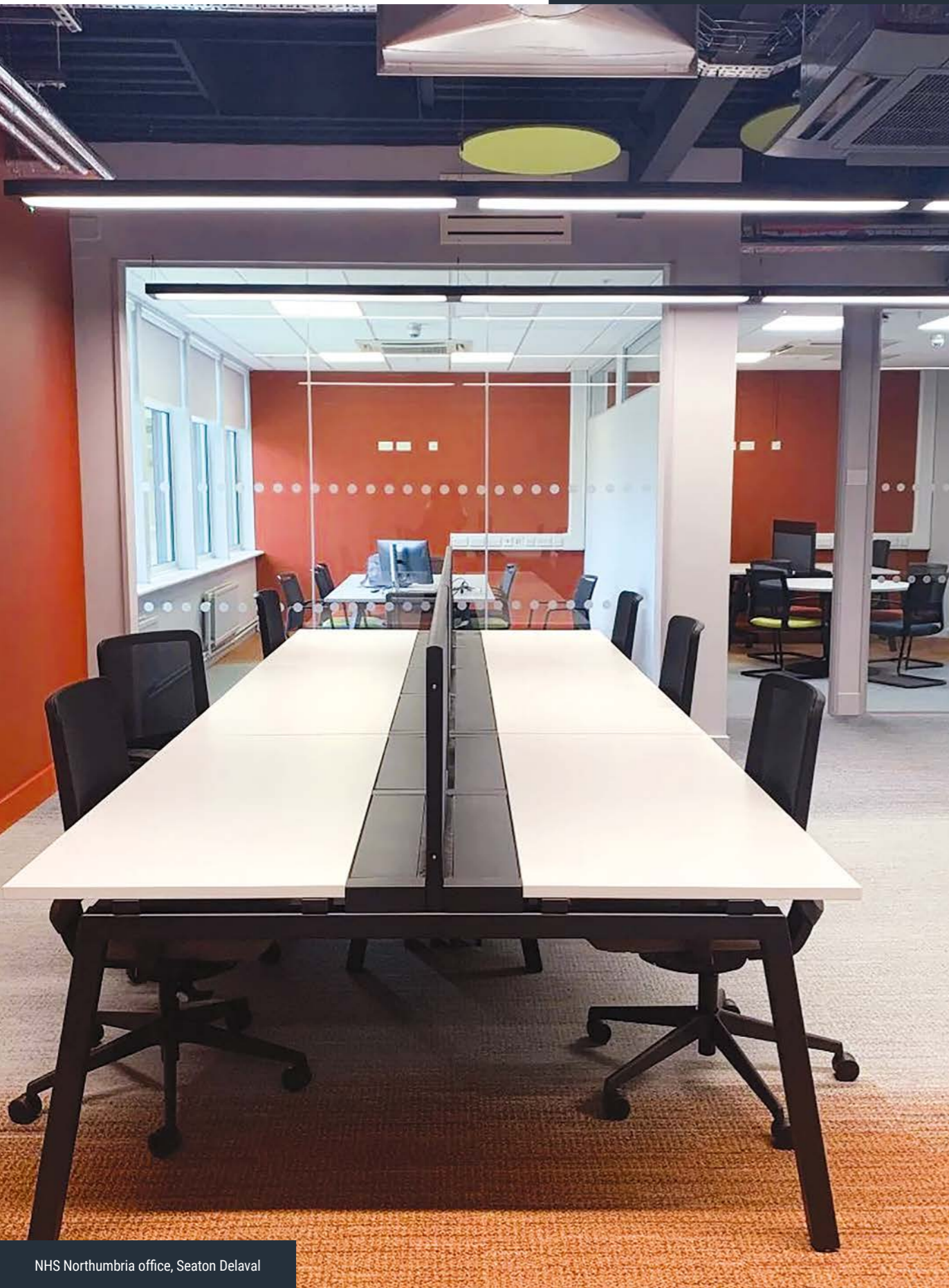
The adoption of the Passivhaus standard across the built environment will play a key role in reducing carbon emissions from our building stock, including from our existing buildings where the Passivhaus Retrofit (EnerPhit) standard is applied. Occupants will benefit from excellent levels of thermal comfort and indoor air quality, alongside lower fuel bills. Landlords will benefit from higher quality buildings with better longevity.

We are Certified Passivhaus Designers and are proud to be offering free Passivhaus feasibility studies to some of our clients to help them understand how the standard could be cost-effectively applied to their schemes.

Passivhaus, and the principles it promotes, offers a tried and tested solution to some of the challenges our society is currently facing. We're proud to be banging the drum for, and delivering projects that champion these values in the North East.



South Tyneside Homes Passivhaus standard housing



NHS Northumbria office, Seaton Delaval

WHAT'S TOPICAL

Why today's office is designed for difference

 **By Nicky Hodgson,**
JDDK Associate Director and Architect

Across industries, return to office (RTO) is being discussed as the next big shift in our working patterns, as the widespread adoption of home working 100% of the time post-pandemic is turned on its head, in an effort to boost collaboration in the workplace. Big brands like Amazon, Apple and Zoom have already begun to mandate RTO for their workers, and a recent survey by KPMG found that 63% of UK CEOs are predicting a full RTO for their teams by 2026.

While few businesses are ever likely to have teams back in the office full time, there is a widespread trend towards balancing the time spent between home working and in shared offices. As business leaders prepare to welcome workers back into their offices more often, a key question must be asked: what should the office of the future look like to help encourage this shift?

RTO will look different for everyone, but all businesses will have to adapt to meet the demand for hybrid working between home and an office that helps people to work better together. Currently, some businesses are reducing their office portfolios, while others are reimagining how their offices can be best utilised as a collaborative space that helps staff thrive when they come together.

The new core benefit of office working is to foster creativity and community spirit across teams. People want to come in to work and feel that their office allows them to work comfortably, in the same way they would at home, but to do so side-by-side with their colleagues. At JDDK, we've noticed that this cultural shift has already prompted office

retrofit projects to focus more on flexibility and employee experience. To hear from a mix of industries on how they are approaching office design in the new era of hybrid working, I recently headed to the Workspace Design Show in London.

Discussions at the event made it clear that across the country, offices have become a major recruitment tool for businesses. Many industries are facing a 'war on talent' and a key consideration for job seekers' is the flexibility to work between home and a modern office that uplifts their working experience. From hearing about different approaches to office design, I found that our ethos of putting the user experience at the heart of our designs means we are more than ahead of the curve when it comes to creating the offices of the future.

For business looking to the future at what their office needs to become to make RTO effective, I explore my tips for making the best out of the space available to set teams up for success.

WHAT'S TOPICAL



Flexible spaces in the NHS Northumbria office

No 'one size fits all'

The home working experience gave employees time to reflect on what environment they need to feel their best and work most effectively in. If employers apply these considerations, they can create a space which retains and empowers the talent in their teams. We are working with clients to understand their teams' requirements and design a space that suits the individual needs of employees, creating offices that rebuild a thriving work community.

For me, designing so users' preferences are taken account of, is just 'good design', and it's how we've always done things at JDDK. But effective design in offices relies on our clients knowing their employees incredibly well, and wanting to create an environment that works for them.

There are various features emerging as must-haves in new and improved offices, some of which have already been implemented by forward thinking businesses.

- Lots of daylight and adjustable artificial lighting help lift the look and feel of office space. Movable partitions make desks suitable for private and collaborative work.
- A mix of office and exhibition space helps staff find space suited to their needs.
- Bike storage spaces and showers help facilitate the record-high number of those cycling to work.
- Delis, morning rooms and yoga spaces have been enabled by employers partnering with service providers.
- Noise pollution is being limited by the use of the soft furnishings and acoustic walls.

Fostering flexibility, wellbeing and productivity

Due to the changing preferences of the workforce, the varying attitudes across generations, and vital diversity and inclusion legislation, one of the key considerations to good office design today is designing for flexibility. By flexibility I don't mean hot desking – this is widely being left in the past as staff prefer a reliable space to call their own – flexibility in the office means designing the space so it can be used in different ways.

A building design with lots of fixed services and walls will quickly become redundant, whereas open plan spaces that utilise partitions with bookshelves and plants can easily be transformed for different purposes. Whether you need everyone at a desk or an event space for a company-wide meeting, an open plan space with movable parts can be changed quickly.

It was discussed throughout the Workplace Design Show that learning through osmosis is also cultivated by an open plan layout where interactions between colleagues are more frequent. From an interiors perspective, it is worth avoiding fixed furniture, looking at how flexibly you can design services and whether you'll be able to change colours and accessories easily in the fullness of time.

Most employers now recognise that investing in employee wellbeing translates into a more productive workforce. This shift has resulted in employers doing more to encourage rest and play as well as work in offices.

Wellness amenities like comfy spaces for a break away from working, accessible landscaped outdoor space, increased cycle hubs and changing facilities are all valuable assets. Offices designed for flexibility, to suit a variety of working styles, will enhance wellbeing and productivity.



NHS Northumbria office, Seaton Delaval



The nation-wide trend of transforming offices into spaces that put people's wellbeing and productivity front and centre is an opportunity for businesses to stand out.



By Nicky Hodgson,
JDDK Associate Director and Architect

A hub of collaboration and community

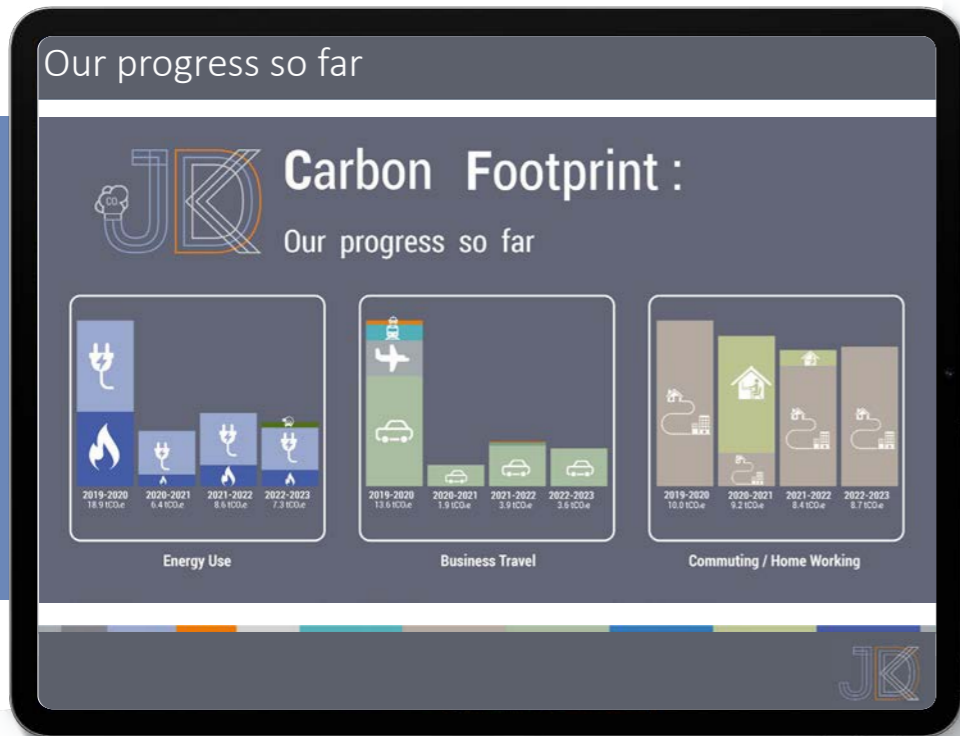
The value of coming together in an office space to foster creativity and innovation is being noted by business leaders globally. Architects have a big role to play in reimagining these offices where flexibility, wellbeing, productivity, and decision making informed by sustainability is key.

The nation-wide trend of transforming offices into spaces that put people's wellbeing and productivity front and centre is an opportunity for businesses to stand out.

To reimagine offices in a way that truly makes a lasting change on culture, businesses need to have a deep understanding of what makes their teams tick, then work with us as architects so we can create designs that accommodate all those differences.

NHS Northumbria

One of our recent projects was the refit for NHS Northumbria's office in Seaton Delaval, which caters for a hybrid workforce. The project aimed to attract and retain talent from the competitive IT sector and encourage employees back to the office so it becomes a hub of collaboration, innovation and creativity. We designed for many different eventualities in this project. The plan had a space for desks as well as lots of smaller spaces suitable for Teams meetings and phone calls. We also included break out spaces with soft seating and coffee tables where ideas can be shared in a relaxed environment. The bright, airy kitchenette maximises the potential for social interactions, which is an important part of rebuilding a workplace community.



Sustainability

JDDK carbon footprint progress continues

At JDDK we recognise the important role that architects have to play in shaping a low carbon future, which is why we have made an ongoing commitment to reducing our carbon footprint as a business.

Since 2019, we have been calculating our carbon footprint on an annual basis, in an effort to reduce the practice's carbon emission outputs year on year.

With the exception of 2020 – 2021, where the pandemic skewed our working patterns alongside businesses across the world, our carbon footprint has reduced significantly over the last four years. One of the key changes post-pandemic has been the introduction of virtual meeting infrastructure which has enabled us to keep our business travel to a minimum. The introduction of our 4-day working week has also played a fundamental role in reducing carbon consumption levels.

In a bid to encourage staff to make lower carbon travel choices when commuting to work, we have installed a secure cycle shelter, staff shower and changing facilities, drying room and a storage unit. Two EV charging points have also been installed in our car park. The introduction of these facilities has resulted in an uplift in the number of staff members commuting to work via bike or electric cars.

“As a practice we are extremely conscious of tracking the carbon footprint of all our projects, and it’s something we are equally as focused on as a business. The team’s ongoing commitment to reducing their carbon footprint has seen our overall carbon emission levels drop from 43.7 in 2019 to 20.3 tCO2e this year, which is a reduction of over half. We’d like to thank everyone for playing their part and taking small but significant steps to help reduce our collective carbon footprint.”



Samantha Dixon,
JDDK Associate and Accredited Conservation Architect

Culture

On the road with JDDK

Embracing ways to improve our wellbeing is a key focus for our team. Every year we take some time away from the office together, to get outdoors, exercise and be creative, whilst celebrating our personal and professional achievements.

For this year’s annual wellbeing day, our in-house Wellbeing and Mental Health Champion and Mental Health First-Aider, Alison Thornton-Sykes, organised a visit to Whalton Manor’s stunning gardens in Northumberland. The Manor’s historical significance dates to the 17th century, in later years being re-designed by Sir Edwin Lutyens. The magnificent garden surrounds the house and includes listed summerhouses, pergolas and walls festooned with rambling roses and clematis as well as magnificent herbaceous borders.



We met with the Manor’s head gardener whilst also taking time to independently explore the gardens. Following a team lunch, we took on an afternoon of outdoor watercolour painting hosted by North East artist, Mark Bletcher. The gardens offered plenty of inspiration and our newfound confidence following Mark’s top tips made for some amazing results, despite many of us being first-timers.

Every now and then we also like to get together for a work trip that incorporates architecture, activity and culture. In previous years we have visited Madrid, Edinburgh, Glasgow and Belfast. This year, we took a fleeting tour of The Lake District in August, stopping by Carlisle, Ambleside and Coniston.

Carlisle Cathedral was our first stop, where we visited the RIBA North-West award-winning building “The Fraternity”, designed by Feilden Fowles. We then ventured to Ambleside where we explored Lake Coniston by canoe, before enjoying an evening meal together at The Tap Yard.

On Saturday we visited the Windemere Jetty Museum – another RIBA North-West award-winner designed by Carmody Groarke, before setting off on an adventure around Rydal Water and up Loughrigg Fell, which despite typical British weather, offered magnificent views of the Lake District landscape and provided the opportunity for us to fine tune our map reading skills!



Partnerships

Framework appointment success with Thirteen Group

We are pleased to have joined regional landlord and housing developer Thirteen Group's new Strategic Development Framework.

Being Partner Consultant allows us to work with Thirteen Group and its other Partner Consultants and Contractors, to assist in delivering the group's ambitious development plans for the future. This includes a focus on decarbonisation, social value and tenant satisfaction.

Having a full framework in place will assist in getting homes on the ground sooner, by streamlining the procurement processes for design and delivery, as well as supporting efficiencies throughout the whole design, delivery and occupancy process.

“We have a long-established relationship with Thirteen Group which our appointment to the framework cements. It also underlines the quality of the developments that we have delivered for the group to date. We are delighted to develop our relationship further through the framework, which brings the promise of involvement with a number of exciting and forward-thinking development opportunities.”



Mura Mullan,
Director at JDDK

Charity

St Oswald's charity of the year

We have recently launched our 'Charity of the Year' scheme following our transition to an Employee-Owned Trust. The new Scheme welcomes each member of staff to nominate a charity which is close to their heart, with the charity then selected at random from the list of fantastic causes nominated.

We're pleased to share our charity of the year for 23/24 is St Oswald's Hospice, a beloved local charity which provides specialist care for babies, children, and adults with life-limiting conditions.

JDDK have been fundraising and donating since earlier this year and in October next year, Stuart Franklin, our Associate Director will be embarking on an ambitious 5-day hill tribe trek in Vietnam to raise much needed funds for the hospice. The trek will be followed by two days in the Mai Chau region, where Stuart will work on a local community project supporting a local palliative care unit.

Stuart has raised a remarkable total of £1,370 so far, which will go towards vital funds for babies and young people alongside their families. A big thank you to everyone who has donated. The whole team at JDDK wish Stuart the very best of luck!



Volunteering

Celebrating 173 years of ABS

Architects Benevolent Society (ABS) is one of the longest established occupational benevolent funds, providing support for the wider architectural profession in times of need. As we look to celebrate 173 years of ABS, we'd like to shine a light on the dedication and commitment of our ABS ambassador and Trustee, Alison Thornton-Sykes, JDDK's Principal Architect.

Thanks to Alison's active role in the network of Northeast Ambassadors for ABS, the fund is a cause we are deeply invested in as a team. As part of her extensive fundraising efforts, Alison has coordinated a host of engaging fundraising events and incentives, including our 'Bake the World a Better Place' bake sale and our popular Tyne Bar Quiz Night events earlier in the year.

In November, Alison helped organise a Paint and Sip fundraising evening at Magic Hat Cafe, led by local artist Mark Bletcher, and arranged for the JDDK team to participate in Time2Sketch, which encouraged everyone to step away from their desks for an hour and sketch something close to their hearts. The events brought together mindfulness, creativity, and wellbeing, aligning with ABS' focus on mental health support.

Alison's role goes beyond hosting fundraising events and extends to raising awareness of ABS' advice, support, and assistance services across the architectural community and their families. Recently, Alison spoke at the Young Architectural Practitioners Forum (YAPF) in Newcastle, where she introduced ABS and its mental health and wellbeing support. Looking ahead, with JDDK's support Alison is hoping to build on fundraising events in the Northeast and encourage greater engagement throughout the wider ABS community.

Movers and shakers



(L-R) JDDK's team of Directors - Adam Vaughan, Nicky Watson, Clair Sanders and Mura Mullan

Clair Sanders is appointed as a Director

We are delighted to announce that Clair was appointed as a Director in October, and joins Nicky Watson, Mura Mullan and Adam Vaughan on our management team. Having gone to strength to strength at JDDK over the last 17 years, Clair was a natural choice when the rare opening for a new Director came up.

Clair will bring cross sector experience to the management team, having worked with businesses and organisations on projects across healthcare, leisure, education and commercial industries. With a passion for residential and social housing, Clair will continue to take a leading role on housing schemes across the public and private sector in her new role and we can't wait to see her wealth of skills and experience come to life in her new role. Congratulations Clair!



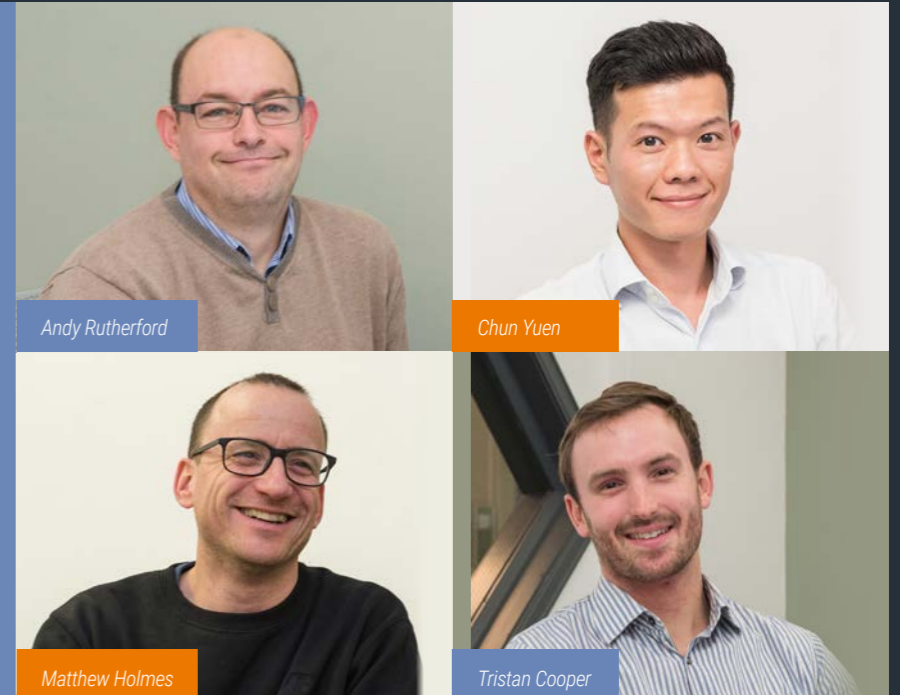
Kevin Turnbull to retire after over three decades at JDDK

Following an impressive 31-year career here at JDDK, at the end of 2023 we're saying farewell to our friend and colleague Kevin Turnbull. First joining in 1992, five years after the practice was founded, Kevin has played an instrumental role in the evolution and success of JDDK ever since.

Kevin said: "Making this announcement has prompted me to reflect on my career at JDDK and I'm proud to have played a part in taking the business to where it is today. Especially some of our collective achievements in more recent years, in particular leading the transfer of JDDK to an Employee-Owned Trust alongside my fellow Directors. It really is a special place to work and I feel very lucky to have been part of such a supportive and talented team, who have and continue to deliver exceptional development projects that impact peoples' lives and leave a lasting legacy. I wish the team the best of luck for the future."

New Technical Lead team appointed

In more recent years, Kevin has led on the practice's technical delivery, overseeing the cohesion of technology and other aspects of design across projects. Developing on this specialism further and creating new opportunities for the team, the firm's technical delivery will be led by four newly promoted team members who now each occupy positions as Technical Leads, who are already in post ahead of Kevin leaving the business in December. Congratulations Andy, Chun, Matthew and Tristan - we can't wait to see how you take on this important role within the design and delivery process.



We welcome two new starters to the team

We're pleased to announce that we have welcomed two new members to the JDDK team – Kushi Lai and Molly Falcus.

Kushi joins us as an Architectural Assistant, having recently graduated from Newcastle University. Kushi will work alongside our team to gain professional practice experience before taking his final qualifications in a couple of years-time. Kushi said: "I have been incredibly lucky to work alongside a diverse and talented team, who have really inspired me over the last four months. Week by week my window of opportunities grow with the support of the team."

Molly is currently studying for her Architectural Technology degree at Leeds Beckett University. Initially joining the team for a week of work experience, Molly is now working alongside the team one day a week to gain experience alongside her degree.

Reflecting on her time at JDDK so far, Molly said: "The mentors I have met through JDDK have been incredibly generous with their time, guidance and encouragement. Beyond the mentorship, the hands-on opportunities at JDDK have been invaluable. Contributing to projects, both large and small, has given me practical experience and allowed me to see how architectural designs move concept to reality."

It's a pleasure to have you both on board!



DISCOVER
DESIGN
DELIVER



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