



The future belongs to the curious.

Exploare



A magazine from Hoare Lea



The future belongs to the curious.

“Learn to look at the whole of something, not just the parts.”

Marie Lu, author

Places.

People.

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The business of brains

Possibilities.

FOREWORD

Designing the built environment puts us at a unique intersection. We span technology, economics, local and global regulation, environmentalism, and the health and wellbeing of society. We craft the stage where lives – billions of them – play out every day.

The privilege, magnitude, complexity, and responsibility of this role can sometimes feel daunting. With every innovation, every development in how we work, and each impactful project, the need for more, better, newer seems to follow. The world feels fast, vast, and often out of control. Despite the pioneering developments they may feature, when projects take years to come to fruition, it can feel as though there's always more that could be done.

So how do we combat that overwhelming feeling? How do we even begin to make changes that keep pace?

We explore.

When we ask questions – about our preconceptions, our actions, our aspirations – we open ourselves up to change. Often, we're so suffocated by the need to find answers and solutions that we forget about one of the most powerful things we can do: ask more questions.

True exploration begins with asking how, why, what if?

Sure, sometimes the question might already have been posed...but is it always the right one? Perhaps we've asked how rather than why, or when rather than who.

No matter how well intentioned we may be, it's in our nature to want to control and contain the challenges we face, and the desire to do so can leave us with tunnel vision. Often, we try the same methods; we test in the same ways.

Yet when we ask questions, we relinquish some of that control; we open ourselves up to wider possibilities, to unlearning, to transformation... We acknowledge our own ability to think and act differently.

The trend report.

Perceptions of productivity.

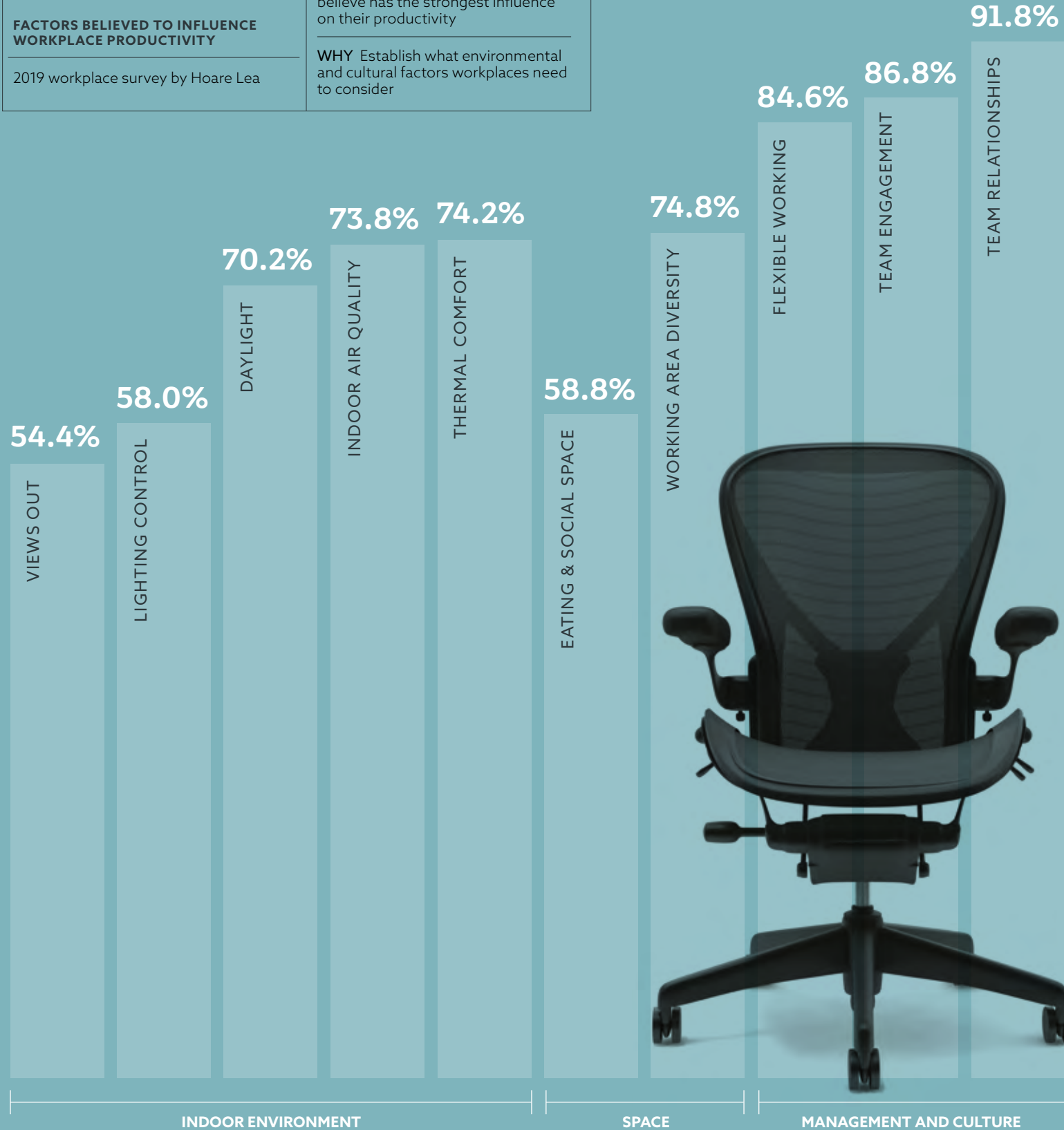
FACTORS BELIEVED TO INFLUENCE WORKPLACE PRODUCTIVITY

2019 workplace survey by Hoare Lea

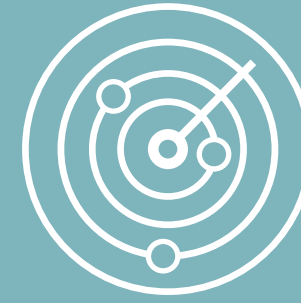
WHO 510 employees across the UK

WHAT Participants asked what they believe has the strongest influence on their productivity

WHY Establish what environmental and cultural factors workplaces need to consider



On the radar.



1.

CLIMATE ACTION

Millions attended the global climate action protests on 20 September, with support from organisations across the built environment.

Let's talk - TundeAgoro@hoarelea.com

2.

CARBON CAPTURE

Scientists have developed a new method to convert CO₂ into coal. The breakthrough approach is more economically viable than previous methods and has prompted talk of the possibility of widespread adoption in the future.

Let's talk - LukeYeates-Mayo@hoarelea.com

3.

DECODING DIGITAL TRANSFORMATION

A recent McKinsey report examines digital transformation in construction companies and highlights the value of identifying operational changes then defining digital use cases.

Let's talk - JamesFord@hoarelea.com

4.

THE WINDY CITY

Let's talk - PatriciaPino@hoarelea.com

Conversation kickstarter.

“How do we overcome the healthcare sector’s adversity to risk and allow technological advancement in our buildings?”

Alan Heathcote, Senior Estates Manager, Sheffield Children’s Hospital

“A 10% increase in green infrastructure within an urban heat island can provide 2.5°C in climatic cooling, reducing the need for expensive HVAC systems.”

Environmental Audit Committee

Join the discussion at hoarelea.com/insights

Kaizen corner.

改善

“Change for better: one-time or continuous, large or small.”

Tired of typical networking events? ‘Netwalking’ (networking while walking) is the latest way to shake up traditional industry get-togethers in favour of heading outdoors. So for your next event, why not ditch the dinner and instead embrace the great British countryside!

Hoare Lea is...



Thinking about. Growing off-grid.

New data from Hotels.com shows a considerable rise in “travellers escaping urban life to go off-grid”. With a massive 60 percent increase in guests searching for unique off-grid hotels during the past two years, this exciting sector is set to grow in popularity. In parallel, discussions for innovative ways to service hotels of this type are deepening.

Let's talk - AndrewPeggram@hoarelea.com



Talking about. Mental health in construction.

The Office of National Statistics recently revealed that the UK suicide rate has risen for the first time since 2013. With approximately 55 percent of the construction industry having experienced mental health issues, we’re working with Shaw Mind Foundation to break down the barriers around this tough topic.

Let's talk - RebeccaLane@hoarelea.com



Caring about. Savings for schools.

Untapped is a collaborative project designed to help educate and support time-pressured schools with energy-efficiency data analytics. It's a brand-new online-energy advice platform that uses smart meter data to help schools monitor and save energy, cut costs, and reduce the environmental impact of their estate.

Visit - untappedschools.com

The business of brains.

“Now it’s personal.”

LET'S TALK
ThomasBone@hoarelea.com



We're living in a society that has taken a dramatic shift towards the personal, thanks to technology transforming just about every aspect of our lives.

There's a brilliant quote from neuroscientist Antonio Damasio: "we are not thinking machines that feel; rather, we are feeling machines that think."

This idea starts to feel very relevant when we consider the rise of artificial intelligence (AI) in the coming decades. All the signs point to the fact that we'll likely see the more mundane and automated tasks managed on our behalf – with technology learning, anticipating, and responding to our wants and needs without us lifting a finger...

I believe that, in response, we'll experience a massive elevation in the importance of our emotional intelligence, creativity, and mindset. The complexity of the human brain will be even more valuable – and, as we know, where value appears, markets follow.

It's exciting to imagine how we'll design our environments to respond to this – whether that's our homes, hotels, hospitals or schools.

It'll no doubt be the workplace sector that leads the way. Imagine the real-estate value of a working space that allows us to boost our brain power, focus our thinking, and stay creative! It's not too wild to think of these future environments as 'brain gyms', where you even have an on-site expert who monitors your personal health. Will we start to treat our brains like an elite sports person treats their body? Will it allow us to work fewer hours and improve our work/life balance for the better?

This isn't just a pipe dream – the signs that point towards it are popping up in all areas of life. For decades, Silicon Valley and Wall Street companies have employed in-house psychologists dedicated to keeping employees mentally strong and happy. Then there's the rise of apps and wearable technology that allows people to record their moods in real time and even feature training 'modules' with titles like 'increase my productivity'.

Stimulating space

There's a reason why we bring health and wellbeing together under one umbrella: it's because we now understand that physical health and mental health can go hand in hand. A study by a Florida State University researcher showed clearly that both a lack of stimulation in the workplace and an unhealthy working environment had a similar long-term cognitive effect on employees.

An interesting research paper launched this year at the British Council for Offices conference in Copenhagen spoke about "the space you need for the time you need it". It was in reference to the rise of the 'space-time office', which – if it takes off – should mean higher returns and opportunities for workplaces to offer real social benefit. I can certainly see this service-led model opening up further investment into environments specifically catered to our individual mindset needs; in fact, if you refocus the emphasis of that mantra to: "the space you need for the time you need it", it opens up a discussion about personalisation.

Craze for customisation

We're living in a society that has taken a dramatic shift towards the personal thanks to digital technology transforming just about every aspect of our lives. Today, the 'boom of bespoke' is everywhere – from playlists to presents. It's set to become second nature, with the pharmaceutical and food industries touted as the next playground of personalisation. We'll soon have treatments tailored to our own individual patient needs, and nutrition plans based on our genes, hormones and psychological tendencies.

Customisation puts control (or certainly the all-important feeling of control) back in our hands – is this the next step for workplaces? Spaces we can tailor to our own productivity preferences for temperature, lighting, or sound... When you design for the masses, you can only offer options, but when you hand over the controls to individuals, you put the power in their hands... You're the Sherpa helping them climb the mountain: vital to success. ■

Powering empowerment.

Traditional economics has told us a tale about how the world works – about what we value. But, for most of us, it doesn't tell the whole story.

How do you express the significance of having a quality job, affordable childcare, or access to a community centre? Instinctively, we all know these things matter, but don't have the practical tools to measure their worth in clear-cut ways.

Social value provides a way to change this. As it becomes a fundamental feature of built-environment legislation up and down the country, those who have championed the concept for years are calling for a consistent approach. We invited our new collaborative partner and social value pioneer **Rob Wolfe** to sit down with **Diana Sanchez** and share his thoughts...

Rob Wolfe.

of CHY Consulting

UK expert in social value strategy and delivery

Works with developers, contractors and local authorities

Diana Sanchez.

of Hoare Lea

Economist and social value champion

Works with architects, engineers, planners, and developers



Diana

So, I'm intrigued... what initially led you towards social value, Rob?



Rob

It's funny because what I do only started being called social value when the Social Value Act came in to play in 2013... but my work began back in 2006. There was £1.6 billion of investment coming in to Leeds; I was essentially given a laptop and a park bench, and tasked with ensuring the money actually addressed deprivation and benefited the city's people. I had to work out how that inward investment would create employment, grow the local economy, support communities, and develop skills. So, while the name given to it has evolved, the process and principles are still the same. It started in the north – perhaps because of demand, or because of the wider poverty disparity. Either way, it's cities like Manchester, Leeds and Liverpool that have been leading the way on this. Now, London and other local authorities are seeing the benefits, so we're at an exciting turning point where it's important we create some clear frameworks for executing social value. My background in setting up pupil referral units, integrating prisoners back into society, and supporting vulnerable young people into work/apprenticeships gives me a real grassroots view.

For me, social value is about creating actions that will make tangible change... not just a platitude in a strategy. So even though I now work at more of a policy level, I'm still obsessed with the who, why, and how things will get done – the questions that led me to social value in the first place. How about you?



Diana

The first time I heard about it was when studying economics and the theories behind what we can or can't measure. I was (and still am) fascinated by how we often bind the role of business to measurable things, such as growth and employment. However, we all know that 'successful' societies or economies go beyond that... they are societies where everyone can enjoy a high-quality of life. I see the growing interest in social value as the biggest opportunity for our industry to rediscover, understand, enhance, and embrace its role and purpose in society. **It's the chance to truly understand and remember who we're designing for... to find not just purpose, but more motivation.**

3.8%

UK unemployment rate

September 2019



Rob

Yes, interestingly, I've noticed that the industry is most motivated when you present clear, practical, pragmatic advice. **For too long the idea of creating social value in a development was seen as esoteric or fluffy.** Until about 2009, I was called 'the care bear': "this is Rob, he's the care bear, he does the fluffy stuff" ...and I think that stemmed from people not realising that it can be achieved in a practical way. The problem was the most common words in social value reports were 'think about' or 'consider', and people tasked with doing this didn't know where to start. Yet, as soon as you can provide parameters and practical frameworks, they completely get it. Thankfully, nowadays, we are also starting to quantify that value and it's being incorporated into legislation, so the whole approach is becoming much clearer.



Diana

Yes, I think the resistance maybe came from there not being a set process. But, we saw this with sustainable design; it requires you to consider the context particular to a project. In some parts of the world sustainability efforts are focussed on energy, in others the priority is around poverty, and that's the same with social value. It requires a slightly different mindset. I think of it in the same way as I do sustainability: that traditionally it's been viewed as a challenge to overcome, but actually **it's an opportunity to create value and excel.** >>





Rob

That point about context is so true. Every company, community and development is different. As such, I do find myself getting frustrated with the industry's focus on defining social value... because, to be honest, as someone brought in to deliver it, I don't care what the definition is! **As long as that conversation is happening, and we all set the parameters within a clear framework, then that's what matters.**



Diana

I do think the desire for definition arose once people understood that true social value actually required a qualitative approach rather than quantitative... you can't reduce the impact a development can have on people to just pure figures; it's so much wider.



Rob

Yep, social value has come a long way since it was purely about listing things: such as how many apprentices a project supported, or how many schools were engaged with etc. Of course, 10 years ago, we pushed for those numbers because it was the best way to introduce the concept of social value, but it provided people with the dangerous temptation to treat it as a tick-box exercise. I saw projects where apprentices working on site for just one day were counted in the stats. Currently, it's easy for companies and clients to claim that they are 'better' at social value merely by manipulating privately held data. **Luckily, open data could allow us to make social value objective and properly track how we are doing.** Equally, the growth of socio-economic analysis – which puts a pound sign on social value – is a way to quantify the quality of actions. What needs to always be very clear though, is that it's just monetisation: a way of speaking the 'language of development' in order to make a case for things. It's an enabler that informs decisions.



Diana

Yes, getting the right data, speaking to the right people... I think it will help society start to break down the old way of viewing things as 'hard or soft': whether that's subjects at school, skills, or whole industries. For so long, we've seen how working in silos has just created more problems: we solve one challenge and inadvertently create one somewhere else. For me, looking at social value is a way to open our eyes to the bigger picture, the connections between things – **it shows how the most humble engineering or design decisions can impact entire communities, economies, and livelihoods.**



Rob

Exactly, it's easy to forget how simple choices can make massive impacts – but it starts with getting the right information. For example, I did some social demographic research for a proposed development, which revealed invisible pockets of unemployment in the area. By looking at the data, we found the reason for that unemployment was partly due to a high number of people who were carers or single parents. The data also told us that there was one nursery place per 200 residents. The developer was wanting to create a community space and was pursuing the health-centre route. We were able to show that, if they really wanted to enhance the social value of the area and **if they really wanted to create sustainable jobs for the people who needed them most... then they needed to address the lack of affordable childcare.** The simple solution? To make sure the community space housed both the health-centre and an affordable childcare provider. >>

Opposite:
Regeneration in Leeds city centre



Rob

That's the kind of practical route to unlocking social value that we're talking about: how best to take developments forward in the first place. **For that you need true – and diverse – community engagement, a dialogue with all demographics. This 'unique context of thought' is something I can't champion enough.** If we all think in the same way, it will hinder developments. Often, community engagement is constrained to a particular group of people – those who can turn up to an event at 2pm on a Wednesday, and want to complain. Our industry needs to look up and start to embrace how other sectors talk to all members of society. I've recently started talking to an entertainment-industry agency that engages with millions of people, with the aim of developing better ideas for how to reach out to a wider variety of people.

This piggy-backing is something the industry can learn from. Too often, developers think achieving social value is too hard because they assume they have to set up their own apprenticeship scheme or community group etc. But why not just find those that already exist? The best part is, it's not just easier, cheaper, and quicker, it also often has the most impact.



Diana

Absolutely – if you think of people as citizens rather than customers then community engagement and support becomes so much simpler. We're all human beings; we all want to understand more and contribute to society. I do think ethical expectations are changing. We only have to look at the slow transformation happening across the globe: whether that's New Zealand deciding to include social value in its measure of economic success, or the rise of companies that have a business model directly focused on improving lives – it's all pointing to a transformation in what people trust, want, and expect.

1:2.3

UK Benefit Cost Ratio
associated with regeneration expenditure



Rob

Totally. It's been interesting to see the change since I started working in social value. Initially it was all marketing and PR led – it was more about saying something than doing, but people are so aware of that gap now. PR has to support what you're doing of course, but not be the driver. That's not to say that profit and good press can't be a motivation – I understand we all have businesses to run. **That's also why I find the social value conversation is so positive once people open the door to it – because it's not just about doing good, it also makes total sense from a commercial point of view:** if you design a shopping centre that supports communities then more people will come and spend money there. The same goes with houses – the more they enhance a community the more the value will rise. It's a no-brainer really...



Diana

Yes, I was excited to see that when Italian energy company Enel recently launched the first general-purpose bond linked to the UN's Sustainable Development Goals, it was almost three times oversubscribed. It's the perfect example of how, from an investor perspective, sustainability means less risk, as well as an opportunity for return while creating positive societal change. People-centred sustainable design (that understands what they want, need, care for, and dislike) is more future-proofed and resilient. It's a journey that each industry has either gone through or is going through, and it will soon converge in a completely different way of thinking and doing things. **I truly believe social value unites everyone: engineers, architects, designers, data scientists, anthropologists, economists – all these people bringing their expertise enables the best places to live in.** It's about asking the big questions: how do we want to exist as a society, what do we want to pass on?

LET'S TALK
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Opposite:
Granary Square, King's Cross



WPP Amsterdam.

The client	WPP
The expertise	Audiovisual, Intelligent Buildings, MEP
The challenge	Transforming a previously derelict Rivierstaete building to bring together 15 WPP agencies into one single location
The sector	Workplace



Photo: Gareth Gardener / WPP

POSSIBILITIES

Liquid gold.

Depending on where you live, clean water feels like the easiest thing on earth to get hold of... or the hardest. In the next 20 years, as climate change causes erratic weather patterns, water demand rises by an estimated 50 percent, and hyper-nationalism destabilises diplomatic cooperation, it's easy to see how water could become 'the next oil'.

Photo: Marko Blazevic on Unsplash

Picture the scene 20 years from now... fresh water is more precious than ever. Have water wars replaced oil wars? Are previously powerful countries beholden to those who embraced water reuse? Have we set new agricultural limits to reduce our global consumption?

From the Nile to the Amazon river, water is often a source of a country's culture, power, trade, and way of life. From the late Bronze age to the current day, water-related conflicts have peppered the history books.

Freshwater constitutes only three percent of all water on earth, and of that, more than two thirds is stored frozen in glaciers and polar ice caps. Almost all the remaining unfrozen freshwater occurs as groundwater, which is present beneath the earth's surface in rocks and soil.

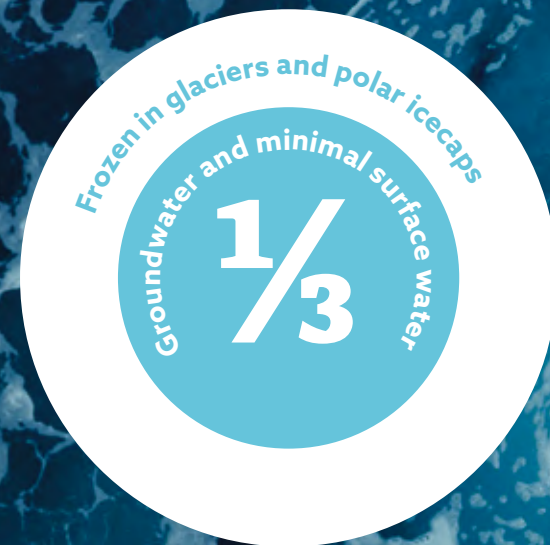
In the coming decades we have a convergence of issues that are set to explode: a growing population with increased mass consumption, water misuse and pollution, as well as climate change and environmental degradation.

Today, multiple countries and organisations have declared a water crisis. Water's value as a global resource has never been more precious. With this comes the need for a sensitive balance across our worldwide water usage, cross-boundary agreements, and sector innovation.

Water on earth.

97%
Saltwater

3% → **2/3**
Freshwater



“World peace hinges on hydropolitics.”

In light of all this, it's no surprise that hydropolitics – ‘the systematic study of conflict and cooperation between states over water resources that transcend international borders’ – is a growing area of focus and study. In fact, hydrodiplomacy is one of the great silent heroes in maintaining global stability.

Michael Jones, who specialises in public health for Hoare Lea in the Middle East, notes: “In many areas of the world, bodies of water run through several countries or dip in and out of a country's borders. The current potential flash points are the Congo Basin – where a huge number of countries are sharing the same resource; the Nile (Egypt has threatened military action if any of the water-scarce countries the river passes through attempt to manage the water resource); and the Gulf – where the use of desalination has resulted in a rise in salinity and temperature.”



Domiz refugees camp, Duhok, Iraq, 2013. Photo: Francesco Gustincich/Alamy Live News

Experts have theorised that the worst drought in close to a millennium in Syria contributed to the civil war that we now understand led to the formation of the so-called Islamic State. This kind of unprecedented water scarcity causes ‘climate refugees’, who are forced to move to nearby countries that have more water, and often results in rising political tensions.

These issues of international diplomacy stand side by side with domestic and regional politics. As Michael notes: “In the Middle East for example, water is becoming the top strategic resource and political issue. With fresh water more precious than ever, due to its use in agriculture, high-tech manufacturing, energy production and so on, there's definitely a growing understanding of water being a resource that needs better management and sustainable use.”

There have been many agreements set in place to try and avoid inequality and conflict over the use of water, with more than 300 water treaties signed internationally. Yet the management and allocation of water is still unresolved. In the decades to come, countries like Canada, Chile, Norway, Colombia and Peru that have water in abundance, will likely hold a great deal more power at the global negotiation table. As such, there is increasing demand from campaign groups and countries for the United Nations to set out a policy, with rules and boundaries on water sharing/allocation.

“While the UK as a whole doesn't have a water scarcity issue, there are areas that suffer more than most... we have big issues to address, such as allocation, scarcity, and water pollution,” explains Mike Best, Associate Director for Public Health at Hoare Lea. “There has been some discussion about breaking down the ‘borders’ between water companies – creating a sort of ‘National Grid of water’ – but this will take major Government pressure. Simply put, the UK has water, but it is not as effectively managed as it could be, in terms of it being a national resource. We have more than we need in the winter months, but when there's an extreme event or prolonged dry spell, our reservoirs and aquifers can suffer. You also have areas like Cornwall for example. It has a population that expands and contracts on a massive scale between summer and winter, and the demand in summer is becoming increasingly hard to meet.” >>

OECD countries predict that, by 2050, the global demand for water will increase by 55%.



school of thought champions policies created by communities to address how people think about – and therefore consume – water.

...And there are some real success stories from this approach. Uganda, for example, now has a thriving water industry, which is completely run by the same women who used to carry the water from the rivers. Meanwhile, in 2018, when Cape Town was days away from running out of water, a campaign that encouraged households to compete against each other to save the most water brought the city back from the brink of drought. People traded tips on social media, were given access to real-time dam levels, and consumption data was gathered on each household. Homes that cut water usage by more than 10 percent were celebrated online. This 'gamification' of resource use is an interesting example of tapping into human psychology to create a complete change in behaviour.

It's also a pertinent example of how important information is. Leveraging data and technology can establish an accurate understanding of water demand and usage, drive efficient and sustainable operations, and – ultimately – inform effective investment planning.

Flip the conversation.

Globally, food production and consumer industries use water at an unprecedented rate, with 70 percent of usage coming from the agriculture sector. A mere eight percent comes from direct human use. However, when it comes to the built environment, this individual usage is significant and it's led to the growth of something called hydro-psychology... Typically, discussions around water scarcity take a top-down approach; hydro-psychology takes the opposite view and considers the individual themselves. Based on the premise that water usage starts with people, it focuses on how much of the world's water supply is being used at the micro-level. This

Stone Towers, Egypt
Image: Zaha Hadid Architects



One water.

There is also another important paradigm shift taking place in our thinking – and it's happening within the water sector itself. John Albert, Chief Research Officer of The Water Research Foundation, notes: "Traditionally, water treatment is separated by treatment type rather than thinking of it as a whole system. But that style of thought is changing with reduced water supplies and as water demands continue to grow. A 'one water' approach to water management takes a holistic, systemic view of waste water, drinking water, and storm water infrastructure."

"On the whole, when it comes to building projects, everyone is encouraged to use and waste less, and this is always a good principle to design for," explains Mike Best. "As Public Health engineers, we strive to design sustainable water systems, such as grey-water recycling and rainwater harvesting. However, we are faced with these being viewed as 'options', as they're aren't yet UK statutory requirements. There are forward-looking schemes, such as BREEAM, which encourage them to be included, but they're not compulsory currently. As designers we can champion the cause, but where finance is the driving force and there is a need to control spending, we find these systems are often quickly removed from the build."

In addition to the design of systems, there's also the all-important aspect of whether water can even be supplied to a site in the first place... Laurence Johnson, Head of Utilities & Energy Infrastructure at Hoare Lea, explains: "When it comes to connecting a project to water utility services, we are starting to find that there just isn't enough infrastructure. In the past, it was mostly just a case of connecting to water pipelines, but now, in certain areas, costly and time-consuming micro reservoirs need to be built in order to provide water to a new development."

"As a country, we don't collect a lot of water, despite having high levels of rain. We're having to plan for water droughts and flooding. Rather than the relatively regular weather patterns we've seen in decades past, we're now looking at solutions that can handle much more extreme patterns. The climate and biodiversity issues we're seeing across the globe have to be addressed in everything we do. Pollutants, flooding, SUDS (sustainable urban drainage systems), aquifers (underground water brought to the surface through natural springs or by pumping), and blue greening all need to be considered. It's about managing water in a holistic way so that it becomes a sustainable asset." >>

70% of the world's freshwater resources are used for agricultural purposes.



'The Dublin Principles'. Integrated water resources management (IWRM).

Set out in 1992, these are the basic principles that dictate modern hydrology and water management.

1. Social equity.

Ensuring equal access for all users (particularly marginalised and poorer user groups) to an adequate quantity and quality of water necessary to sustain human wellbeing.

2. Economic efficiency.

Bringing the greatest benefit to the greatest number of users possible with the available financial and water resources.

3. Ecological sustainability.

Requiring aquatic ecosystems to be acknowledged as users and that adequate allocation is made to sustain their natural functioning.

Main image: Bahía Blanca, Buenos Aires Province, Argentina. Satellite view. Elements of this image furnished by NASA.

Circular thinking and carbon benefits.

In the Middle East, these kinds of holistic water systems are much more prevalent. When a development is in the middle of arid desert then regenerating waste or grey water is vital. "We find many projects just can't get utility connections because they're non-existent," explains Michael Jones. "As such, there's a much stronger appetite for circular solutions, especially those that emulate the natural water cycle. There's certainly a growing need for comprehensive and sustainable water strategies... and they should consider the management, storage, treatment, and usage design solutions needed."

There's also an important, but often overlooked, link between energy consumption and efficient water usage – the water-energy nexus. Addressing efficient water management can actually significantly reduce energy consumption in domestic, commercial and industrial systems, saving money and tonnes of carbon. It's arguably a relatively easy step towards zero carbon... and it also points towards a new paradigm for design: system thinking – where the whole system is considered rather than just the individual parts.

The challenge lies with encouraging and educating changemakers, and individuals, to view holistic self-sufficient systems as the most attractive option – the default solution.

Indeed, in our globalised world, success won't just come from countries cooperating to share the earth's most vital resource. It also needs us to view it as part of a whole ecosystem where resource use is prioritised from the outset. If we manage both? We might just be able to forge a harmonious kinship with the lifeblood of our planet. □

LET'S TALK

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MichaelJones@hoarelea.com



Springwell Leeds Academy.	
The client	Leeds LEP, Interserve Construction
The architect	Atkins
The expertise	Acoustics, Fire Engineering, MEP, Sustainability
The challenge	Radically improving the provision of specialist schooling in Leeds for children with social, emotional and mental health (SEMH) needs
The sector	Schools





PEOPLE

Design for life.

Iconic interior designer, entrepreneur, author, adviser, TV personality, mentor and MBE... a conversation with Kelly Hoppen could never disappoint.

Photos courtesy of Kelly Hoppen



As someone who has been in the business for more than 40 years now, I thrive when I'm exploring new areas of design.

Q What defines good design for you?

KH Good design should not only look good, it should *feel* good. Environment is everything.

The three key things I consider when designing a space are texture, colour, and proportion. I find the balance of these maintains harmony in a space, which is essential. There are 'rules' of course – they underpin the design, the foundation – but I view creativity as another layer of design, where they don't apply.

Of course, if you're looking at colour schemes, I have rules for shades that go together and shades I avoid pairing as a general rule of thumb, but even I'm tempted to break these sometimes.

Q Do you stick to certain principals when designing, or have you found yourself adapting to the changing needs and wants of people?

KH My core design principles of balance, simplicity, and neutrality, remain the same regardless of what, or where, I am designing. I've always been really vocal about how the spaces we inhabit affect our mood and wellbeing – my entire philosophy is based on a fusion of East meets West, incorporating eastern principles around Feng Shui, balance, and symmetry into modern western design.

It's also about designing spaces in a way that best meets the needs of the client. I want to enhance and complement the way they live, so this means my approach has adapted organically over time.

Q You also seem to have moved from private clients to more of a mix with commercial projects during your career. Was that a deliberate decision?

KH It wasn't a conscious decision as such – the opportunities arose and I took them. As someone who has been in the business for more than 40 years now, I thrive when I'm exploring new areas of design. I still love creating homes for private clients, but I also adore taking on a new challenge, and every project has appealed to me in its own way. They all come with their unique challenges, but that's what makes them exciting. If every project was the same, it would be boring. Whether designing a hotel or a cruise ship, broadly the same principles apply: they should feel like a home away from home. So my experience of designing private residences has definitely influenced my approach to commercial projects.

Q Do you draw on your own personal ethos for living?

KH Yes, home is somewhere you should go and just be able to truly relax and feel at peace. To me, a home is the ultimate sanctuary. >>





I will always make suggestions if I feel something could work better – that's what people hire me for!

Q As someone who works for clients, how do you approach communication and collaboration?

KH Getting to know the client first is crucial for any project and open communication is vital. I always ask the client in the first instance to fill out a very detailed questionnaire. It gives me a great insight into how they live and their personal style, and then we go from there and discuss. International projects in particular are the most bespoke, as I focus on respecting the culture, architecture, and the people.

Working with a client is always a collaboration as you're partnering with someone to create a design for them, but I am given a lot of free reign. People come to me for my style nowadays, and I will always make suggestions if I feel something could work better – that's what they hire me for!

Q Refurbishments are a growing trend – how exciting is this for you as a designer and what does it offer (or take away) in terms of creativity?

KH It has its positives and its negatives. On one hand I'm limited in what I can do in terms of structure, but it does allow me to think creatively about how to make the best use of the space.

On the other hand, sometimes I would love to just tear something down and build it back up again! I find I need to see and experience a space to start to get a vision for it and understand how each element will interact with one another. Lighting in particular is so important to get right and can really impact the design. For example, the position of the sun at various times throughout the day alters the colour of paint on a wall. >>





Right: As a mentor for the charity, Kelly recently spoke at the National Youth Mentoring Summit organised by the Diana Award.

Q As well as *Dragon's Den*, you're involved in the Government's GREAT campaign and work as an adviser to small businesses... what lessons from your +40-year career do you bring to that role?

KH Having had a business for this long, I've experienced all the ups and downs that come with it – I know what works and what doesn't, and can pass on the lessons I've learnt. My business was a small company at one point, so I know what it's like to just go for it and be driven by your passion.

I also understand the ups and downs of being a female entrepreneur. My experience opened my eyes to how women have all the sensibilities and capabilities to be incredible entrepreneurs and should never be intimidated to make their mark in a male-dominated environment. I've been lucky to be surrounded by incredible women throughout my life and think it's so important for people to connect and support women.

I'm still actively involved with the GREAT campaign and am a passionate advocate of British talent. *Dragon's Den* meanwhile was such an amazing opportunity that I couldn't say no! Interestingly, despite being there to provide my insight, I ended up learning a lot more about what it takes to make a business work. So many entrepreneurs would come in with an amazing idea, but it takes more than just that to create a successful business or brand.

Q What do you think can hold people back from entrepreneurship or having the confidence to develop ideas?

KH I've learnt so much through my work with the Prince's Trust and the Diana Award, a charity that aims to make high-quality mentoring programmes accessible to all young people irrespective of their background. It's also trying to break the stereotypical view of who can be a mentor. Take, for instance, people who have dyslexia – something that's often perceived negatively. I didn't realise I had dyslexia until I was 30 when my daughter was diagnosed with it, but it made so much sense. When I was at school, dyslexics were misunderstood – I used to panic because I couldn't spell and got bullied because of it. But dyslexia is just a different way of thinking. I realise now that it allows me to see things from a completely different perspective: I can visualise designs in my head before I put pen to paper, design to music, and translate sound into spaces.

So it's made me realise that all children should be encouraged from a young age and have role models they can relate to. Mentoring young people and watching them go on to achieve amazing things is so rewarding. In my opinion, everyone should have a mentor; whether it's a parent, an employer, a colleague, or even a friend. Mentoring the next generation has shown me how conscious they are of societal issues and how they stand up for what they believe in – it's a very inspiring thing. □



Women have all the sensibilities and capabilities to be incredible entrepreneurs and should never be intimidated to make their mark in a male-dominated environment.

One Blackfriars.

The client	St George South London
The architect	SimpsonHaugh Architects
The expertise	Fire Engineering, MEP, Sustainability, Vertical Transportation
The challenge	Allowing an awe-inspiring sculptural tower to function for residents and hotel guests alike
The sectors	Residential, Hotels





Partner Andrew Morris reveals his personal selection of transformative projects in cities across the Middle East.

LET'S TALK

AndrewMorris@hoarelea.com

Shaping my cities.

Middle East.

HOARE LEA & THE MIDDLE EAST

Since opening our first international office in Abu Dhabi, to the thriving multi-location setup we have today, we've helped shape some truly transformative projects in the region. We're proud to be part of this exciting design and construction industry, and we'll continue to play our part in growing it even further.

From our earliest...

1

SIDRA. Commenced 2008.

SIDRA is a fascinating building. Essentially a world-class, ultramodern, all-digital, academic medical centre, it was designed and planned to the best international standards, and offers specialist care for women and children. We were joined by colleagues from our Manchester, Birmingham, and Bournemouth offices who developed the design to US and UK standards - so it was a true team effort! Our local engineers here in the region worked with the installers to ensure these high standards were met throughout the build. It was a proud moment when the hospital opened as it truly sets an exceptional new standard for medical care and research in the region.

2

Hazza Bin Zayed Stadium. Commenced 2010.

This was an epic project to work on. Anything hailed as a feat of engineering is always going to be interesting! Our biggest challenge was to design a comfortable environment in the middle of the desert without mechanical cooling... Thanks to innovative engineering, it was the first stadium to achieve a Two Pearl ESTIDAMA (the Arabic word for sustainability) rating - earning it the prestige of being one of the region's most sophisticated developments.

3

Masdar HQ. Commenced 2011.

It was incredibly exciting to work on a project that broke ground with its impressive sustainability achievements. As you might imagine, when a building's anchor tenants are Masdar (a renewable energy leader) and the International Renewable Energy Agency, the bar is going to be set pretty high! Yet we managed to create an ultra-sustainable building in an extreme environment, which often sees temperatures in excess of 40°C. It even became the UAE's first ever Four Pearl ESTIDAMA rated building.

4

Legatum, DIFC Gate. Commenced 2011.

The creation of this bespoke, personalised fit-out within the Dubai International Financial Centre was an exciting, collaborative journey from concept to completion.

Insider tip: head to one of the restaurants for a spectacular view over Jumeirah Emirates Towers.

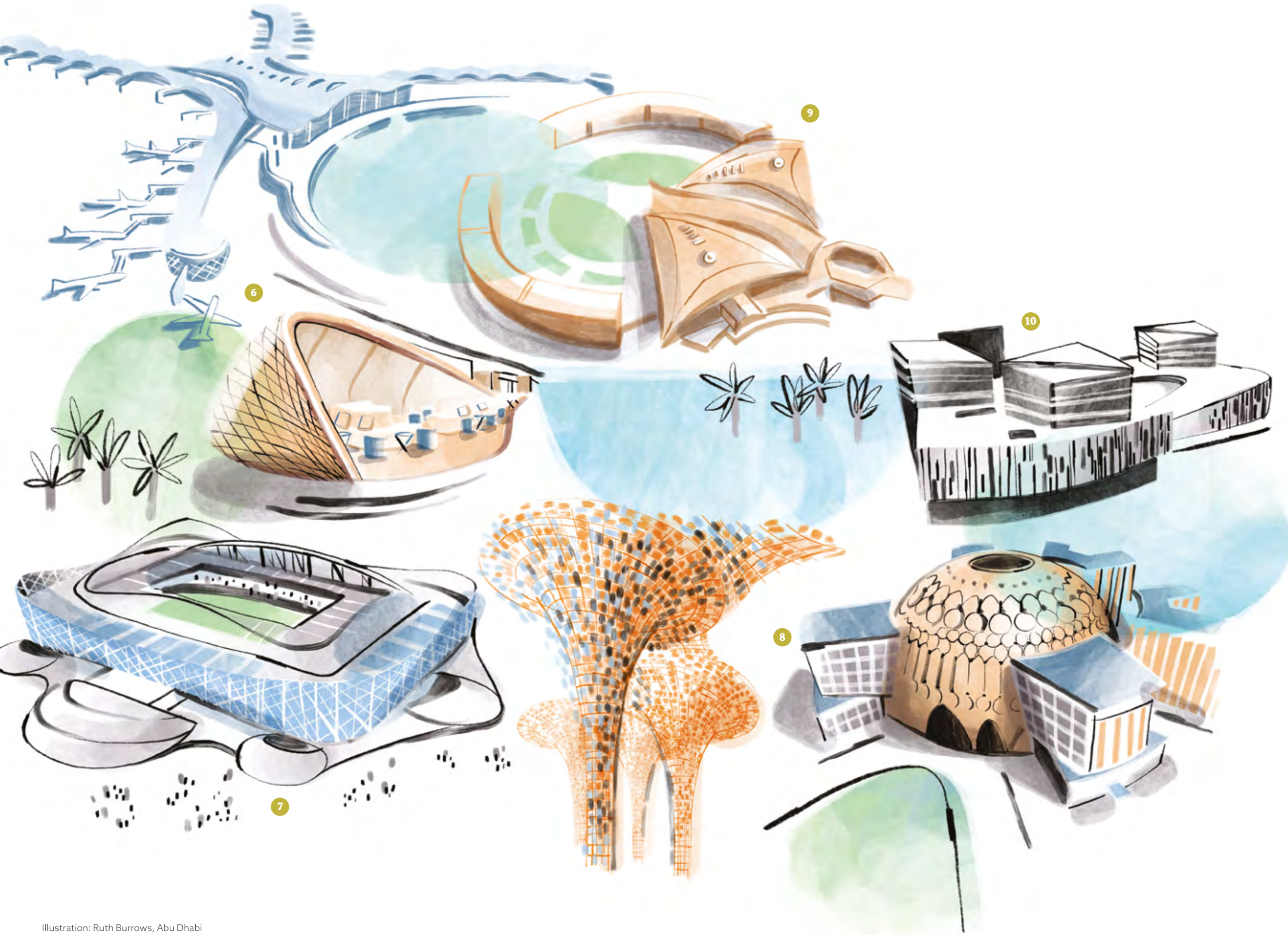
5

Doha Metro: Green Line. Commenced 2012.

I experienced my proudest work moment to-date on this project. This immense infrastructure scheme will transport the region into a more sustainable future. The timescales, ambitions, and size immediately made it a complex challenge like nothing we had ever taken on. At the project's peak, to hit the 2015 design delivery date, we had more than 150 of our engineers involved. It was a vast undertaking, and hitting the deadline was a phenomenal achievement: collaborative working at its best.



Shaping my cities. Middle East.



...to our latest projects.

6 Abu Dhabi airport. Commenced 2014.

The main terminal provides seven million square feet of world-class passenger experience. We also worked on the Etihad Lounge, designed to be one of the best airport lounges in the world. Our Audiovisual, Fire Engineering and Lighting Design experts worked alongside us to help create an exceptional experience. Some very lucky people now get to enjoy the different dining areas, spa, cinema, and dedicated children's entertainment zones.

7 Al Rayyan Stadium. Commenced 2015.

Thanks to our fantastic relationship with Patten Architects working on the Hazza Bin Zayed Stadium, we were the team chosen for this FIFA job. It was an incredibly complex design that required a coordinated multi-office approach, along with our specialist groups. We had some challenging temperature conditions to achieve within the stadium, bowl and on the field of play, which meant CFD modelling was key. It was a great moment when our client said the solution we developed was the highest performing design and the first to meet all requirements.

8 2020 Dubai Expo. Commenced 2015.

Iconic developments that attract attention across the globe come along only a few times in your career. The World Expo is such a project. We provided a range of design services for almost every building (all permanent structures) in the Expo 'districts'. These feature food & beverage pavilions, retail exhibition spaces for 180 participating countries, expo operations, event spaces, and amenities.

We're also working on Al Wasl Plaza, the striking centrepiece of the Expo. It's made up of an intricate 65-metre high domed trellis that will act as a 360-degree projection surface. I can't wait to see it all come alive next year.

9 Armed Forces Officers Club. Commenced 2016.

This Grade A listed heritage property is an iconic Abu Dhabi landmark. While most projects in the region focus on new builds, this development offered us a unique opportunity to demonstrate our skills in refurbishment. It was all about developing designs for the new buildings that would integrate into and complement the existing site - all without affecting its character and legacy.

10 Media Zone. Commenced 2019.

This development on Yas Island is set to be a gamechanger. It's a brand-new central hub where all the major media providers in Abu Dhabi will be located, along with shops, restaurants, studio spaces and a large central piazza that will host events. We're responsible for the MEP fit-out design of the office spaces for all the Media Zone premier partners including CNN, Sky News and Red Bee Media. It will be exciting to see this connected community grow as they innovate, collaborate, and create together.

TWO EXPERTS: ONE BELIEVER - ONE SCEPTIC

The X files: Does certification truly deliver?



The sceptic.

JOHN LLOYD

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I'd argue that, in many ways, a building's owner and occupants don't necessarily experience much benefit from a high-scoring certification rating.

Most certification schemes focus on the design elements and are awarded around the time of practical completion or handover. Often, the aspects of a rating system that affect a building's energy demand, emissions, and internal environment are based on predictive calculations with no mandated post-occupancy verification to check that these predictions were achieved. To me, certification doesn't do enough to overcome the now fairly well understood 'performance gap' issue.

A Better Buildings Partnership analysis of the energy-use in more than 200 properties showed that there is little or no correlation between EPC ratings and actual energy performance. In fact, the average energy consumption of a building was found to be similar whether the building had an EPC rating of C, D or E.

Point scoring

Have designers and assessors become increasingly focussed on achieving the necessary points rather than a useful outcome? If certification is treated as a tick-box, point-scoring exercise then it won't deliver better buildings. From the occupant's perspective, their building's certifications are probably deemed somewhat irrelevant.

I believe, if we want to deliver better buildings that perform as well as we intend at design stage, we have to bite the bullet and commit to verifying that in-use performance is in line with our design estimates. Where it's not, there may be some simple adjustments that can be made through a seasonal commissioning process to reduce the performance gap. It would also allow designers to learn more about the reasons for differences between design and operational performance, and would lead to better designs in the future.

Emerging delivery frameworks, such as WELL and Design for Performance, focus more on post-occupancy performance and therefore guarantee better outcomes alongside a shiny certificate. I believe they signpost the future direction that certification schemes must head in to remain relevant.



The believer.

THOMAS SMITH

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Often the flexibility of certification schemes can lead to a perception problem from clients and design team members. Good-practice features incorporated into designs don't necessarily make the building more sustainable, but rather offer the potential for them to be so. For example, unused cycle racks don't improve the sustainability of a scheme, but no cycle racks at all would completely remove the option for occupants to safely secure their bikes, and is likely to discourage sustainable travel.

Balancing act

As technically-minded professionals, it's natural for us to base our measure of success on empirical information or that which can be measured and demonstrated. In buildings this often draws us to energy performance and it is here that faith in certification's ability to deliver can be doubted. However, the very point of certification is to cover a wide range of themes. Take BREEAM for example: it ensures that no key sustainability themes are ignored and that the benefits of one part of the tapestry of sustainable environmental factors are not over sold. For instance, you might have an energy-efficient building but you've chopped down woodland to build it, or you have a WELL Gold building but it's difficult to get to and workers experience a long, stressful commute.

Often, frustration with certification is generally due to the procedural and bureaucratic nature of schemes and not due to their elements being poorly thought out or irrelevant.

It's also crucially important to consider that most certification schemes are regularly updated and therefore can incorporate improved approaches, such as Design for Performance. With this in mind, in the future I believe certification schemes will evolve to include better metrics, and continue to be a mechanism to drive improved environmental performance.



Photo: Channel 4 Television

The word on The Street.

Empowering the self-build dream.

Graven Hill is a first-of-its-kind site based in Bicester where 1,900 unique homes will be built over the next 10 years. *Grand Designs: The Street* followed the first 10 ground-breaking Graven Hill pioneers as they built their own individual homes to form a street, and ultimately a community, like no other in Britain.

Designer and presenter, Kevin McCloud:

"In 2010, I went to The Netherlands on a trip with a bunch of leaders of local councils and politicians to look at a large self-build town called Almere, built on reclaimed land near Amsterdam. Meanwhile, a small local authority in Bicester, Cherwell District Council, had also been bitten by the Almere bug. In fact, they wanted to replicate Almere

and facilitate Britain's first self-build and custom-build site on a grand scale. They were negotiating with the MOD to buy an old military site as they wanted to see what it would be like if they invited the general public to build their own homes. It's this experiment that we've been following for the last five years on *Grand Designs*. We've witnessed the first 10 pioneering households build a street of very different homes. But it's just the start. Ultimately there will be thousands of homes, some social housing, some custom-build as well as self-build. I believe it's a model that could be copied by local authorities up and down the land.

"Our pioneers are not people with large financial cushions to float on. All started out as ordinary householders who decided to build a home and they're now all transformed as individuals and

hugely empowered. As this town of 1,900 homes grows, they're going to become the go-to gurus of how to build with Hempcrete, or how to deal with the mortgage company. They are the self-build wizards of Graven Hill.

"What I loved to see in this project was the transformation from a bare piece of brown field land next to a railway into a proper street and community. For the last five years the pioneers have slogged away, and they've got to know each other so well as a result. They have spun all this invisible social glue; this is just the beginning of something." □

LET'S TALK

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Engineers of human experiences
Hoare Lea is an award-winning engineering consultancy with a creative team of engineers, designers, and technical specialists. We provide innovative solutions to complex engineering and design challenges for buildings.

Irrespective of the scale or complexity of a project, we provide a full range of MEP, environmental, and sustainability services, bringing buildings to life and ensuring that they perform in operation as well as they look.

Locations

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Expertise

Acoustics, Air Quality, Audiovisual, Building Physics, Digital Engineering, Expert Witness, Façade Access, Fire Engineering, Intelligent Buildings, Lighting Design, MEP, Operational Engineering, Performance, Property Services, Research & Development, Security, Sustainability, Utilities & Energy Infrastructure, Vertical Transportation, Vibration.

Sectors

Arts, Culture & Heritage, Courts, Data Centre & Mission Critical, Defence, Distribution, Healthcare, Higher Education, Hotels, Manufacturing & Process, Prisons, Residential, Retail, Schools, Science & Research, Sport, Transport, Workplace.

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Exploare.
The future belongs to the curious.
Challenge accepted.

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Artist Stuart Padwick with 'Talk To Me', a series of two giant sculptures designed to stimulate conversations about mental health, in King's Cross.



Exploare.

DESIGN MATTERS
WITH KELLY HOPPEN

SELF-BUILD COMMUNITIES
WITH KEVIN MCCLLOUD

SOCIAL VALUE WITH
ROBERT WOLFE

SHAPING THE MIDDLE EAST
WITH ANDREW MORRIS

THE BUSINESS OF BRAINS
WITH THOMAS BONE

THE WORLD'S WATER
WITH INDUSTRY EXPERTS