

PLANNING LEARNING SPACES

FOR ARCHITECTS
DESIGNERS AND
SCHOOL LEADERS

THE VISIONARIES SHAPING WORLDWIDE EDUCATION



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SIR KEN ROBINSON

1950 – 2020



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PLANNING LEARNING SPACES

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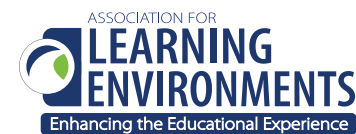


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HOPES AND DREAMS

IRENA BARKER
EDITOR



While schools grapple with the practicalities of the Covid-19 pandemic, education's blue-sky thinkers are more important than ever. Education during the pandemic may be dominated by mundane and practical concerns such as "How many people can we safely fit in a room?" and "Is there enough hand sanitiser to go around?" But teachers are worrying about whether children will have time to cover the content they need for their exams, and parents are praying their children aren't sent home with a common cold.

But amid all this, it is important not to neglect the hopes and dreams we have for education. The lockdown brought a welcome pause, enabling us to think about the nature and role of education, the potential for online learning and how we use spaces in school.

When Murray Hudson and Terry White compiled *Planning Learning Spaces*, they stressed the importance of turning to educational "visionaries" capable of reimagining education and educational spaces. This is all the more important now because Covid-19 has the potential to turn back the clock on teaching and learning for good. To underline this in the autumn issue, our contributors have named their most inspiring visionaries, who will continue to inspire change beyond the pandemic.

Take, for example, headteacher Gary Spracklen who highlights the educationalist Stephen Harris, chief learning officer for Learnlife Barcelona, saying

that he not only envisions the future but also "puts actions to his words".

Educational speaker Dave Strudwick recommends the world-renowned "edtech" guru Professor Stephen Heppell, who impressed him with his ideas about the link between learning spaces and pedagogy.

We also carry an interview with Rosan Bosch, a designer who has taken school design to a new — very playful — level.

But visionaries are not always well known. James Clarke, director of learning-centric furniture-maker Learniture, recommends Leonard and Dorothy Elmhirst, who bought Dartington Hall in South Devon in 1925 and set up a progressive boarding school there to educate their daughter. They employed a number of well-known architects to develop the school, including — incredibly — Walter Gropius, founder of the Bauhaus movement.

So, let's celebrate these visionaries and others like them. They are the people who will take education forward to a better place.

Irena Barker.



SCHOOLS BRACED FOR WINTER

The Covid-19 pandemic has presented the traditional classroom environment with many challenges. Dr Katherine Forsey, CSciTeach, looks ahead to the colder months.

There's no doubt about it, this winter will be particularly challenging for schools. Attendance rates have been falling, seasonal coughs, colds and runny noses are returning and access to coronavirus testing is difficult in many areas. Schools are doing everything possible to follow current guidelines, keep staff and children safe, and deliver a broad and balanced curriculum.

One of the guidelines — ensuring good ventilation and maximising ventilation by opening windows and doors — seems straightforward, accompanied by turning off recirculating air-conditioning systems and using fresh air supply.

However, as the temperature outside drops, I have seen guidance from individual schools asking pupils to come prepared with extra layers of warm clothing because classrooms will be cold. We are also trying to limit the movement of pupils and staff around classrooms, so there is little opportunity for warming up. I am imagining cold, bundled-up children, trying their hardest to work at their allocated desks.

The great outdoors

There is a solution to this problem. We know the risk of viral transmission is lower outdoors, and because of this many schools' plans for full opening in September included an increased use of the outdoors for learning. I would assert that learning outdoors in the winter is preferable to shivering at a desk. Outside, children have more space so they can move around while maintaining social distancing.

Evidence shows that children learn better outdoors, it is good for their well-being and has a positive impact on teachers too. In my experience, almost the entire primary curriculum could be taught outdoors and many secondary subject areas too; we could seize this opportunity to develop and grow our curriculum-based outdoor education provision.

The outdoors provide greater context, resonance and meaning — this fantastic free resource could be placed at the heart of our planning. Those in charge of learning spaces could also use the winter to review outdoor areas, make them more accessible and stimulating for learning, and zone areas of provision and timetabling access in the same way as is done for indoor space. Just as this pandemic has driven the wider adoption of online teaching methods, maybe it will also encourage schools to take full advantage of their outdoor spaces for year-round learning. If children are being told to wrap up warm anyway, it's a great opportunity to get them al fresco.

Dr Katherine Forsey, CSciTeach, is a Learning Rooms and STEM Consultant, and an Outdoor Learning Specialist.



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HUMANITY, OPTIMISM AND IMAGINATION

Matthew Taylor, Chief Executive of the Royal Society of Arts, pays tribute to the inspirational educational thinker and author Sir Ken Robinson.



Sir Ken Robinson, who died in August at the age of 70, had a big influence on me. Around the time I joined the RSA my mother was keeping on at me to join millions of others in watching Ken's famous TED talk "Do schools kill creativity?" When I did, I made two decisions on the spot: first that we would start filming RSA talks and getting them to mass audiences; and, second, that we would invite Ken to be one of our early keynote speakers. Since then, RSA livecasts, replays, the "Animate" series and shorts have been watched hundreds of millions of times all across the globe. And, of course, one of the most popular is Ken's Animate, which has been viewed well over 20 million times.

Ken gave his 2008 RSA talk to mark receiving the Society's Benjamin Franklin award. Afterwards he charmed my star-struck mum, reminiscing about Leeds in the late 1960s, when they had both been students. I only met Ken a few times, but I can confirm that he was just as warm and engaging face-to-face as in his famous talks.

The facts of Ken's life have been set out in several glowing obituaries. They talk about his childhood in Liverpool overcoming the barriers presented by poverty and disability; his fascination with arts in education; his powerful 1998 report on creativity and

learning to the Blair government; and his bestselling books (most notably *The Element: How Finding Your Passion Changes Everything*). His influence on policymakers stretches from Northern Ireland to Singapore.

Yet many will see Ken as a heroic failure. After all, in his own native country the narrow curriculum, the obsession with testing and the fact that arts and cultural education has been marginalised, especially in schools in working-class areas, all illustrate how education policy has gone in the opposite direction. Yet, as Ken appreciated, the world is complex and unpredictable.

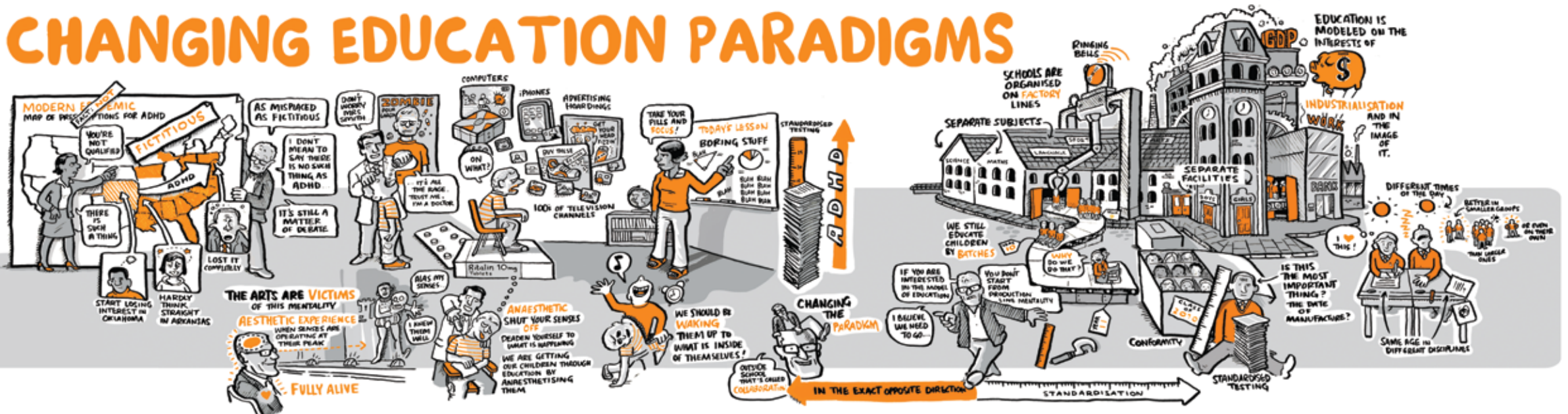
In the wake of Covid-19 and the terrible impact it has had on children's learning, not to mention the exams debacle, the time is right to change the conversation about education, its methods and purposes. Now, perhaps, long-running arguments about the relevance and value of schooling will start to move centre stage: What skills and competencies do young people need in an age of AI and robotics? How do we prepare young people for a world of new challenges and risks, of which the climate emergency is the most obvious? How do we address the epidemic of anxiety and depression in youngsters?

The humanity, optimism and imagination of Ken Robinson's work will be a vital asset.

How to measure a person's life? Perhaps by the effects they have on those who live on after they have gone. Tens of millions of people have been moved and inspired by Ken Robinson. From kids who realised it wasn't necessarily their fault that they were bored in school, to jaded teachers thrillingly reminded of the idealism that made them choose the profession. I suspect the greatest impact of Ken's work is still to come. Watch his talks, read his books and maybe we can start winning some of the battles he so valiantly fought. ■

...THE TIME IS RIGHT TO CHANGE THE CONVERSATION ABOUT EDUCATION, ITS METHODS AND PURPOSES.

CHANGING EDUCATION PARADIGMS



Terry White, Chair of A4LE Europe, introduces this edition, which explores the role of the visionary in developing the learning spaces of the future.

VISION WITH ACTION CAN CHANGE THE WORLD

When Murray Hudson and I compiled *Planning Learning Spaces*, we stressed the importance of the role of “visionaries” in reimagining education and the spaces and places in which we learn.

Visionary educationalist Loris Malaguzzi inspired our thinking through the Reggio Emilia approach, where the learning environment is seen as the “Third Teacher”.

In the foreword to our publication, the late Sir Ken Robinson stated: “...reimagining schools is one of the most creative challenges in contemporary education.”

The renowned architect Herman Hertzberger also set the scene for the publication, but chose to focus his initial words on education rather than the design of buildings: “There are essentially two ways of educating people. One way is to tell them how the world works... The other way is to let people develop a capacity for thinking for themselves.”

We need such visionaries, who have passion and creativity, to inspire everyone to make a reality of their own vision. To achieve this requires great leadership; leadership that empowers more of us to lead and not just to follow. This is all the more important now, because Covid-19 has the potential to turn back the clock on learning and teaching for good.

Central to such thinking are the words of Joel Barker and often used by Nelson Mandela: “Vision without action is just a dream, action without vision just passes the time, and vision with action can change the world.”

This edition focuses on “vision into action” and on those that are inspiring, creating and leading change.

Danish Kurani is explicit in his contribution: “We need more people in society to think deeply, challenge stuff, not just go with the flow.”

Sir Clive Woodward, in talking about the Apex2100 ski academy in France, recognises that education must be at the heart of all they do because a passion for learning makes athletes perform at the highest personal level.

Rosan Bosch creates an environment where play and creativity are not only valued but also integral to motivating learning.

Visionaries will not always be well known but they will have seized their moment to create change while recognising the importance of collaborative activity to embed and sustain new initiatives.

Architect Richard Leonard, director of the Hayball practice in Australia, highlights the work of designer Mary Featherston, whose 2003 internal refurbishment of a run-down school in a modest outer suburb of Melbourne “changed everything for us designers”. He writes: “We had neither seen nor experienced spaces so finely tuned to kids, to the way they learned, and to the education pedagogy that underpinned the design.”

Visionaries will have influenced us all in our thinking. They will not all be well known, but they will have had the capacity to inspire us to think differently in all aspects of our life and work.

Importantly, vision into action is not age specific and perhaps visionary youth is coming of age – Greta Thunberg describes herself as a “16-year-old climate activist with Asperger’s”.

We must all play a part to unleash learning for future generations and equip young people with the knowledge and skills to play their part in a rapidly changing world.

This edition aims to help us convert our visions into actions and not to remain mere dreams. ■



Image: Tom Ross
For Richard Leonard's full profile on Mary Featherston, visit www.planninglearningspaces.com



Image: Dartington Archive

DOROTHY AND LEONARD ELMHIRST

“Dorothy and Leonard Elmhirst bought the Dartington estate in 1925. Dartington Hall School was one of their first projects - a progressive school to which “free thinkers” such as Bertrand Russell & Aldous Huxley sent their children. Dartington was a holistic project - there were no contradictions, and it was this honesty as well as their humility that has inspired me.”

Nominated by James Clarke, *Learniture*



Image: Kate Hudson

DAVID THORNBURG

“David Thornburg inspired me because of his visionary approach to learning and how we can innovate and think of learning as a dynamic collaboration. I have been inspired by his metaphors and transformed them into a tangible design practice. And I continue to refine this practice to drive the much-needed paradigm change in the way we educate future generations.”

Nominated by Rosan Bosch, *Rosan Bosch Studio*



Image: Granelis Ltd

HERMAN HERTZBERGER

“Herman Hertzberger’s learning spaces always surprise and delight. His schools offer individual choice and opportunities to learn in different environments. He also genuinely cares for and responds to all the users of the buildings including the community.”

Nominated by Michál Cohen, *Walters & Cohen*

MARY FEATHERSTON

“The one person I keep referencing in education design is Mary Featherston. Her project that changed everything for us as designers was a small internal refurbishment of a run-down school: Wooranna Park Primary School. It was a passion project for Mary and a meeting of minds with innovative educators at the school, demonstrating what the collaboration of creative designer and courageous educator could achieve”.

Nominated by Richard Leonard, *Hayball*



“MAKING SURE THAT KIDS OF ALL AGES ARE ALLOWED TO LEARN BY MAKING AND DOING, USING THEIR HANDS, THAT ACTIVATES DIFFERENT PARTS OF THE BRAIN...”

CHANGING LIVES THROUGH GOOD SCHOOL DESIGN

Who do national governments, and many leading businesses and organisations, including Google, call for advice on educational design? Danish Kurani is a celebrated architect and Irena Barker spoke to him.

At around the ages of seven and eight, Danish Kurani often found himself with time on his hands. His parents, immigrants from Pakistan and India who worked hard to run a dry-cleaning business in the suburbs of Atlanta, Georgia, would leave him in the back of the shop to play with whatever was lying around.

Danish would while away the hours playing with coat hangers and shirt boxes. “I was really fascinated with creating things that had some sort of mechanical function to them,” he tells *Planning Learning Spaces*. “I was always building things and seeing if I could get them to move and function.”

Having the time to just mess around and experiment came out of necessity, but it turned out to be a luxury that many overscheduled children rarely have in the modern world. “I think if we look at kids today, or people in general, with all of our devices, we don’t allow ourselves to be bored ever – and that’s when your mind is free to wander and dream up things,” he muses.



The space and time he had to play and explore as a child has also influenced which educational philosophies feed into his work.

"I feel like we have a propensity to push kids towards education technology – and those are good tools, but they are not the only things that kids need to be doing. "Making sure that kids of all ages are allowed to learn by making and doing, using their hands, that activates different parts of the brain," he explains.

Having to invent new games with scarce resources was an important learning experience for Kurani, who is now known for the educational and social design projects produced by his Kurani architectural practice. It taught him, he says, divergent thinking, which might well be what has led to Kurani being so well known in the education world for his innovative designs.

An admirer of the Australian educational innovator Stephen Harris – "he just gets it" – and Saeed Arida, founder of the Nu Vu School in Cambridge, Massachusetts, Kurani's thinking is highly progressive.

Talking to him by WhatsApp from Atlanta, he is clearly a designer who thinks long and deeply about how to lead a good life, what makes for a good education and how design can make an impact socially.

But he didn't start out in the education world. His first projects were in the corporate sector, working on hotels and office towers. It was while he was carrying out post-graduate study at Harvard University that he decided educational architecture was the best way for him to make a difference in the world: "I was doing

funded research with Boston public schools, helping them think about schools in the year 2030 and what that might look like."

Then came a project working with Brazil's ministry of education to plan schools' provision in unmapped favelas with little infrastructure, which proved to be another seminal experience.

"I see us as a very reactive society; we have these problems in the world, whether it's climate change or economic failures or a housing crisis, and we're very reactive to the problem.

"I've always seen education as this proactive thing that we could be doing – if we educated everyone in the world extremely well, then we would create fewer problems."

Education should not just be about whether people know formulas and theories, but whether they know how to be good humans and citizens, he says.

"To me, taking this all-encompassing definition, education seemed to be the most proactive way I could help – as an architect – to educate people better around the world; that is, actually contributing to solutions and preventing problems in the first place."

Unfortunately, it is not always easy to convince governments and other decision-makers about what Kurani calls the "basic necessity" of good school design. Something that, he suggests, could be the fault of architects themselves.

"Part of it boils down to the fact that the general public doesn't understand the power of architecture and the

"WE NEED MORE PEOPLE IN SOCIETY TO THINK DEEPLY, CHALLENGE STUFF, NOT JUST GO WITH THE FLOW... ESSENTIALLY, THAT CURIOSITY IS A WAY OF TEACHING KIDS HOW TO THINK DEEPER, HOW TO SLOW DOWN, HOW TO LOOK BEYOND THE SURFACE."

built environment, and so it's seen as a luxury item as opposed to this basic building block of life, which is literally around us 24/7.

"Every person interacts with architecture every single day. Even if you're living in the most remote parts of the Amazon you will have some thatched roof or fence... it's inescapable, and to ignore such a large part of our lives is to me insane. Why don't we put more energy and research and thought and deliberation and care into it? Some of the onus is on us as architects; we need to better communicate the value of design for the general public."

Architects could spend less time showing off their sleek glassy towers and more time explaining why they have made design decisions, and researching the efficacy of their designs, he adds.

"We need to be at the conversation table with global leaders when they're talking about how do we solve climate change, how do we solve the housing crisis, how do we solve problems in education; no one's going to take us seriously enough to be at those conversation tables if we're just out producing junk and talking about the junk."





This is not something Kurani could be accused of. A glance at just a couple of his design practice's most recent projects shows a broad range of innovative environments with very specific goals.

He designed a New York tech lab for the innovative organisation Black Girls Code, which aims to open up the tech industry to girls and women of colour. Common pieces of technology are mounted on the walls so that the inner workings can be seen and interacted with. The ceiling of the lab is used to demonstrate how a motherboard works with copper circuits. These concepts, says Kurani, were introduced to "spark some curiosity and get kids to think deeper". "We need more people in society to think deeply, challenge stuff, not just go with the flow. Think about when I'm using a piece of technology, have I ever stopped to think about how it works, what's inside it, what might make it this way, what makes it so great, what makes it not so great? Essentially, that curiosity is a way of teaching kids how to think deeper, how to slow down, how to look beyond the surface.

"Women and black kids often feel like outsiders [in tech], like they don't belong; we want the girls to feel like insiders. So, part of that was to pull back the curtain and show them it's not some exclusive, enigmatic, scary thing – it's actually quite simple and fun, it's not masculine or feminine. Part of getting them to feel like insiders was...exposing the hardware inside that's powering those things – let's make it less scary."

Another contrasting project is Riverbend School near Chennai in India, where happiness and well-being are the key elements of the curriculum. Funded by the SPI Incubator project set up by Kiran Reddy, CEO of the cinema chain SPI Group, Kurani says Riverbend "pushes the boundaries" of what a school can be (see P18-19).

He puts this originality down to the creative freedom he was given by the founding team, who have professional backgrounds in business, cinema, psychology and other sectors, rather than education.

"You can see that in the results. And you think about how progressive and advanced the thinking is, it's really pushing the boundaries of what education could be.

"I think that boils down to the fact we had creative freedom and they weren't bogged down by this nostalgic inertia of what education has always been; they just weren't from that world."

The weekly boarding school "flips" the current education model, moving away from an emphasis on content – because that can be obtained online – towards well-being, social and emotional skills, and problem-solving.

"What's hard to get – and what you really need in person – is that experiential learning where you're taught how to be a good human, you're taught how to be happy, you're taught how to have good character, be a good person in the world," he says.

These are values that no one could dispute, of course. And for Kurani, it's clear he walks the walk. Architecture and design are, for him, ways to change the world for the better. ■

Kurani.us

Schools pictured: P13: High Tech Elementary School. P14-15: Khan Lab School. P16-17: Black Girls Code



A COMMUNITY WHERE HAPPINESS CAN BE CULTIVATED

With its lush gardens surrounding peaceful streams and lakes, Riverbend School near the southern coastal city of Chennai, India, feels more like a nature retreat than a weekday boarding school. And that's exactly what Danish Kurani, the lead architect, was aiming for when he designed this campus of contentment.

The inspirations were a documentary, *The Economics of Happiness*, about how villages foster strong relationships, and a Harvard University study, which found that strong relationships lead to happiness. Armed with these insights, Kurani created a school where happiness is a top priority.

His mission for Riverbend was to improve the quality of students' lives and education through architecture. Mimicking the layout of a village, Kurani designed a one-of-a-kind school where right angles and straight lines are nowhere to be found. All the buildings at Riverbend are intentionally human-scaled – one to two storeys – and curved, so there are no corners where students can feel left out or isolated.

To cultivate a sense of community, student dormitories are modelled after the traditional form of communal housing known as *tulou*, found in China's Fujian province. Unlike other housing models, which reflect social hierarchy, *tulou* demonstrate equality and collaboration. The rooms are built around a central square, and each unit has its own common space for students to gather and build relationships.

Riverbend features winding paths, outdoor pavilions and a public plaza, for events, situated at the heart of campus. There is a meditation deck where students can practise yoga, as well as agricultural land where they can grow vegetables and raise small animals. Every aspect of Kurani's design is intended to promote physical and mental well-being as a path to happiness.

Riverbend prioritises the development of a child's personality and character, which is something most traditional classroom environments don't view as

their responsibility. Riverbend's teachers also draw upon ancient Hindu texts to teach students that true happiness comes from within. According to Eastern philosophy, disconnecting happiness from external factors leads to a much happier life.

The school's curriculum is project- and enquiry-driven. Each term, students try to solve a new global challenge, such as health equity, food access or clean energy development. Students also get to pursue their personal interests in woodworking studios, digital creation labs and test kitchens (where they can explore cultures through cuisine).

When it comes to future possibilities, students are encouraged to keep an open mind, whether that means going to college, becoming an entrepreneur or pursuing a passion project. Giving students the freedom to choose their own path removes a lot of the stress and anxiety experienced by students at traditional Indian schools.

Riverbend aims to dispel the idea that you need to sacrifice health to achieve success. The conventional mindset is to work hard now so that you can be happy later. But Riverbend's goal is to teach students that they can find happiness, inner purpose and success all at the same time.

Because many schools are re-examining their academic priorities in order to incorporate happiness, Riverbend offers a model for the future of education. With everything that is going on in the world, it has never been more important to have an environment where kids can learn how to be happy, no matter what is going on around them. ■





“IMAGINATION IS KEY TO LEARNING BECAUSE IF YOU CAN'T IMAGINE SOMETHING, THEN IT'S NOT PART OF YOUR WORLD AND YOU'LL THINK NOTHING ELSE IS POSSIBLE OTHER THAN WHAT YOU ALREADY KNOW.”



A MOVEMENT ROOTED IN NATURE

Rosan Bosch has for decades been a passionate advocate of the importance of intelligent design in shaping learning environments. She outlined her philosophy in a conversation with Fiona McCarthy.

Leading Dutch-born, Denmark-based designer and dynamic public speaker, Rosan Bosch wants us to move more. “The actual movement of our body defines our thoughts, meaning that if you want to change your thought pattern, you actually have to change the way you move,” she asserts. She also wants us to reconnect with nature: “Our relationship with nature is in our DNA – we instinctively feel comfortable within the landscape.”

Bosch, whose eponymous studio specialises in the revolutionary design of schools and classrooms, also believes movement and nature are two of the most essential ingredients in helping to enhance the way both children and adults alike learn. And yet, why have they become mutually exclusive to both the educational process and the way we design schools today?

A mission in modernity

It has long been Bosch's mission, since the early noughties, to drag the antiquated topography of our classrooms into the twenty-first century. It felt personal too, spurred on in those earlier days by the pain of seeing her own two vibrant, engaged young sons, Loui and Milan (now 22 and 18), become increasingly despondent about school – “talking about it as a boring

duty,” she remembers. “If school has become some kind of sterile, white-cubed laboratory which has nothing to do with the world surrounding you,” she says, “then the things you learn there are not active the moment you leave that white cube.”

Today, Bosch's globally pioneering interdisciplinary practice, with offices in Copenhagen and Madrid, draws upon the worlds of art, architecture and design to collaborate with schools and educational bodies, as well as libraries, hospitals and workspaces, to prioritise design as a tool for development. She and her team, which includes not only architects and designers but also sociologists and anthropologists, work on projects around the world, from Beijing, Milan and Lahore to Egypt, Argentina and Mexico. (Her most recent project, St. Andrew's Scots School in Buenos Aires, was featured in *Planning Learning Spaces*, Issue 3.)

Simply asking why?

Her own background has always encouraged her to ask the question “why?” In contemporary art – first studying at the Hogeschool voor de Kunsten in Holland, with courses in Fine Arts at the University of Barcelona, before working as a contemporary artist until founding the Rosan Bosch Studio in 2010 – and before that the



“OUR RELATIONSHIP WITH NATURE IS IN OUR DNA...”



influence of her mother, a teacher and photographer “who gave me this investigate, interactive hands-on approach to discovering the world”.

“Why do we have a system which says, ‘now you’re in a classroom, you shut up?’” she asks. “Many educational institutions are out of date, where modern pedagogical methods, learning principles and values are put to work in surroundings that haven’t changed since medieval times.” In Bosch’s mind, we need our children to be creative, independent people with new ideas: “To tackle the challenges of tomorrow, in a fast-paced, urbanised and global world, which we can’t even begin to foresee.”

Six principles

While Bosch garnered worldwide acclaim in 2012 for her design of the Swedish free school, Vittra Telefonplan, her methodologies were formed much earlier with concepts pioneered at the Ordrup School in Gentofte, Denmark, completed in 2006. Considered a forward-thinking school because it centred its design around the understanding that every child learns differently, Bosch and her then design partner Rune Fjord Jensen divided the school into areas with distinct functions, creating new spaces for learning.

Here, the ideas of ‘quiet and absorption’, ‘discussion and cooperation’ and ‘confidence and presence’ incorporated into Ordrup have since morphed into a six-principle system her studio has devised – citing the work of educational technology futurist David Thornburg as vital inspiration – to work across both

a physical and digital self-directed learning landscape.

“The first four – Mountain Top, Cave, Campfire and Watering Hole – are scenographies that stage how skills and reflections are processed,” Bosch explains; “the last two, Hands-On and Movement, add an important extra dimension to the process,” she continues.

Mountain Top, for example, is about creating a space for one-way communication – a place for individuals to address a group and let thoughts, views and knowledge flow from one to many.

Cave focuses on communicating with yourself, allowing for deep concentration, whether its lying down, finding a quiet corner or being in a small, strictly defined space (like the reading tubes she first devised for Ordrup) that can also be transparent or open to remain connected with the other surrounding spaces.

Campfire is for collaboration, working in groups – “not set in a circle in a classroom but rather taking responsibility for your team, working out how to communicate better,” Bosch says – whereas Watering Hole is a visually attractive place for drawing students together at a relaxed intersection, enticing an informal exchange of information and knowledge between different people.

Hands-On – connecting your brain with your body, “a sensory learning experience that is playful and piques students’ curiosity” – and Movement are perhaps Bosch’s favourite elements. “Although these are trickier spaces for a designer,” she concedes, “because you need to facilitate places where you can get dirty

and make a mess, using tools and materials, and the problem with a big open space for movement is that it becomes a dead space when it’s not being used.”

Stimulating the imagination

Encouraged by the work of American psychologist Barbara Tversky – especially her book *Mind in Motion: How Action Shapes Thought* (Basic Civitas Books, 2018) – Bosch says that movement is particularly key to her own system. “If the actual movement of our body defines our thoughts – studies show over 20 per cent of us need to move a body part to activate our brain – then the current architecture of a classroom is so bad for learning because it makes you sit still,” she sighs. So instead of the usual strict system of corridors and classrooms, she draws on nature for designing this variety of learning landscapes

Cutouts of trees create a focus for “campfire” meeting points, undulating sofas in varying shades of green act as “watering holes”, providing a variety of destinations within the school day for all the different ways we learn. For example, the “mountain top” designed for Vittra Telefonplan – a large blue staircase, “like a massive iceberg” – provides multiple platforms for conversations and play, and inside there is even a small space for a cinema. “You can sit inside of the mountain, on top of the mountain, you can run over or around the mountain,” Bosch says.

Although architecture and design are her practice’s modus operandi, Bosch sees the role of design as being to stimulate all the senses – light, colour, texture, scent

and taste; her true driving force is always pushing the boundaries of understanding and enhancing “how we actually learn,” she enthuses. Integral to this is play (indeed, Bosch is currently writing her second book, *Play to Learn: Designing for Uncertainty*), which she argues is crucial for stimulating curiosity. “When you get curious, you start to wander, to explore and discover things which then speak to your imagination,” she says. “Imagination is key to learning because if you can’t imagine something, then it’s not part of your world and you’ll think nothing else is possible other than what you already know.”

Even if a school can’t afford to create an entirely new building, Bosch’s system can inspire schools to introduce their own ideas for learning landscapes. In Mexico, at a small public school, with no money, “they had three small individual tables which they put together, covered with a scrap piece of billboard painted with a little bit of paint left over, and they were super proud of their organic ‘campfire’ place,” says Bosch.

During the Covid-19 lockdown, the six principles also helped teachers there to structure the digital programme for home learning. “Then what happened was the parents started to relate to it as well,” she explains. Ultimately, Bosch’s methodologies became a fusion of the digital and physical world “which will make it so much easier for us to integrate a gradual hybrid system of our principles into schools”, she shares excitedly, wherever they may be. ■

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WHAT SIR CLIVE WOODWARD DID NEXT

(BUILT A WORLD-CLASS SKI ACADEMY)

An elite ski academy in France, located at 2,100 metres altitude, may hold the key to a new model of education; Suzanne Kyle finds out how.

Tignes, high above the snow line in the French Alps, with views of Mont Blanc, might seem an unlikely setting for a visionary new model of education. Apex2100 is the brainchild of a British investor and skiing-enthusiast who asked Sir Clive Woodward, the world-renowned sports coach (and a qualified teacher) who took England to victory in the 2003 Rugby World Cup, to “design the best ski academy in the world”. Five years later, Apex2100 opened its doors with a mission to create future World Cup and Olympic alpine skiers. It may also inadvertently have become a trailblazer for a model of technology-enabled blended learning, the potential benefits of which the global pandemic has brought sharply into focus.

“BEING ABLE TO MOVE AROUND, WRITE ON THE WALLS AND RECONFIGURE THE ROOM INCREASES ENGAGEMENT; ADD TO THAT THE INTEGRATION OF THE FURNITURE WITH THE IT AND WE’VE CREATED THE IDEAL ENVIRONMENT IN WHICH OUR ATHLETES CAN EXCEL.”

SIR CLIVE WOODWARD





“I THINK WE OWN THE LARGEST SPACEOASIS TEACHERWALL IN THE WORLD, WHICH WE’RE VERY PROUD OF!”



Three key principles

What makes an elite sports academy the best in the world? How do you balance rigorous physical training with the need to furnish each athlete with an education that will sustain them throughout their sporting career and beyond? And how do you educate people whose innate physicality means that sitting still for hours constitutes an existential threat? Sir Clive Woodward, now Director of Sport for Apex2100, spent a year finding out by visiting elite performance institutions worldwide, from football to ballet. He distilled his hands-on research into three key principles:

1. Education, education, education

Education must be at the heart of absolutely everything you do. Not only academic subjects but also learning about your sport, your discipline, nutrition, sleep, physical conditioning and beyond.

2. Think global

Make your cohort international, because globally minded athletes are better off. There’s no point just competing against your home nation, you need exposure to the best from all over the world.

3. Facilities

The fabric of school must be absolutely bespoke to your mission. What you put inside that school is crucial because it will enable your athletes to succeed.

An environment in which to excel

Chris Thomson, CEO of Apex2100, was appointed to get the academy up and running. For his Masters in

Teaching and Learning from Oxford University, Chris studied how to transform the digital nature of learning for the next generation.

“I had a very clear view on how we could design the classroom spaces and ensure the ability of kids to learn beyond the classroom, complemented by IT,” explains Chris. “The 16–19-year-olds who attend the academy full time might travel to 25 competitions from January to April. They are not going to be in the classroom for long, but they’ve got their laptop, the software. It’s a blended model of independence, flipped learning and small classes that is tailored to them.”

Sir Clive Woodward added: “Education was always going to be at the heart of everything we do at Apex because a passion for learning makes athletes better. If you excel on the ski slopes there is no reason why you cannot excel in the classroom. The learning spaces we now have at the academy create opportunities that allow this to happen, which, simply, you wouldn’t see in a traditional school environment. Being able to move around, write on the walls and reconfigure the room increases engagement; add to that the integration of the furniture with the IT and we’ve created the ideal environment in which our athletes can excel.”

Apex2100’s integrated IT infrastructure came into its own during the pandemic. The school closed on a Thursday and by the following Tuesday it was back up and running online. During lockdown the academy held nutrition talks with parents and athletes, juggling and balance coordination lessons and parents’ evenings, as well as “normal” lessons. It was a seamless transition,

enabled by the infrastructure the school was designed around. It’s a model that could ensure education cannot be so profoundly disrupted as it was during lockdown.

A blank canvas

The research for the academy took two years, with Chris visiting schools throughout Europe to gather ideas about how to create the best possible learning spaces for the academy’s athletes.

“The bricks and mortar were already in place,” Chris says. “We didn’t have any say on the shape of the rooms but beyond that it was a totally blank canvas. Halfway up a mountain is an extremely expensive place to build a school, so every square inch performs multiple functions. It’s a marriage of flexible spaces; for example, the dining room can be used for dining, a slalom lesson, a chemistry lesson, a tutor meeting – every bit of the academy can be used in multiple ways.”

Alongside the classrooms, science labs, library and staff offices you’ll find gyms, a performance centre, hydrotherapy pools, a movement studio and physiotherapy treatment rooms, which set the academy apart from a “normal” school. Chris’s team now includes an international staff of 12 professional subject specific teachers, many of whom hold degrees from elite universities (five have Masters degrees); coaches,

including former World Cup and Olympic skiers; experts in strength and conditioning, nutrition, digital well-being; and a sleep scientist.

Flexible learning spaces

The Apex2100 athletes are, naturally, active learners, rather than “sit-down-for-an-hour” people and the learning spaces take this into account. Bespoke teacher walls featuring a central screen flanked by vast writable walls with integrated storage were specified. The dry-wipe walls occupy the longest side of the classroom, providing a huge canvas for teachers – and learners and athletes are actively encouraged to get up and move around during lessons.

The chairs were chosen not just for their ergonomic qualities, but also because they allow the user to rock or twist, enabling the athletes to sit actively.

“The learning spaces at Apex2100 are built to promote open-minded and collaborative learning; both fundamental aspects of our education programme as an IB World School,” explains Sophie Campbell, Head of Teaching and Learning at Apex2100. “From the walls to the desks, students are able to write on almost all surfaces of the classrooms, and the interchangeable tables mean that rooms can transform from conference style to collaborative spaces in an instant.”

“IF YOU EXCEL ON THE SKI SLOPES THERE IS NO REASON WHY YOU CANNOT EXCEL IN THE CLASSROOM.”

On his regular learning walks around the school Chris notices how all the teachers use the writable walls differently: "A maths teacher may have an area for rough jottings and a more formal area for an exam-style question; an English teacher may share vocab and buzzwords. There is so much space these thoughts can be left up there, they don't have to be rubbed out straightaway."

"I love it when I see multiple kids writing on the wall," enthuses Chris. "You might have six kids writing ideas on the wall all at the same time, and then stepping back and sharing them."



"That's six kids working with five others – so that's 30 interactions in the space of a minute, whereas a smartboard would only enable one. That's great to see. "And the configuration in these rooms looks different every day, depending on what they are using the spaces for," he continued. "Also, when not in use, we can flip up the tops on the tables, move them away and turn it into a conference centre so the building earns money when the athletes aren't there. The furniture is so agile, it ticks all the boxes in terms of what we wanted it to do."

**THE APEX ATHLETES
ARE, NATURALLY, ACTIVE
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The library is also a highly flexible space featuring shield-shaped tables for collaborative working and screens for online lessons. The power sockets on these tables have French, English, USB and USB-C sockets to make it easy for every athlete to plug in their device. Individual workstations allow learners to work independently.

Even the lockers have been designed to precisely meet the needs of the athletes, featuring integrated charging, space for a folder and the Apex2100 rucksack. "It's the furniture interacting with the IT interacting with the infrastructure – and if you get that right, hopefully you're in a good situation," says Chris. "We're really pleased with all the spaces; the feedback from staff, students and parents is incredibly positive. Students really enjoy the fact that a lesson doesn't need to be sitting down for an hour; they are encouraged to move around, and they absolutely love writing on the walls and on the tables. We get the kids to do the tours around the building, for prospective athletes and guests, and they say 'it's great here, at this school you can draw on the walls', which is a really lovely thing to hear."

A collaborative curriculum

While nurturing sporting talent is the academy's primary aim, athletes must also maintain high standards in their academic work too or they lose time on "the hill" (aka "the mountain"). No one is under any illusions; the career of an athlete may be short, curtailed by injury or simply fail to take off, so the education at Apex2100 is designed to support its athletes during their sporting career and afterwards. As an IB World School, Apex2100 is committed to moving away from the "old school" style of education.

"The IB curriculum is all about collaboration and open-mindedness," explains Chris. "The environment we've created, the furniture and the IT, complements the IB curriculum. It's very different from 'here are your learning criteria, let's tick them off'." ■

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ASPIRING TO BE THE MAGIC KINGDOM

Richard Gerver is a well-known speaker, author and a former headteacher. He remembers how, on his first day as a new head, a sprinkling of fairy dust became the catalyst for incredible change.

I remember the day I was appointed headteacher of Grange Primary School, a large, struggling primary school in Long Eaton, UK. The 500-place school had been under a cloud for the best part of a decade; poor results, high staff absence and low-level behaviour issues were the norm.

Prior to my appointment, there had been no permanent headteacher in place for nearly two years, because the previous one had been off through ill health.

It was not a happy place, but it had enormous potential. The school had a real sense of community and some great staff and fantastic kids, but was in a deep hole.

The shock of realities

My first day will live long in the memory. I arrived early and laden, rather like a new pupil, with a new pencil case and a smart new suit. Unlike a new pupil, I also carried my very own posh cafetière, which my wife had bought me as a present for getting the job.

I floated into my office and spent a little while “making it mine”. I adjusted the furniture, rearranged the files, hung a few pictures and brewed a coffee. I put on some music, Einaudi piano music I think, and smiled. Wow, I thought, I am actually a head.

However, by 8am, reality was beginning to hit; a succession of people asking questions that they expected me to be able to answer, problems presented to me like gifts, and I was bombarded with information.

By 9am, many of the kids had swept past me into their classrooms with an air unique to children who are used to seeing a succession of heads. The cherry on the cake came at 9:45am when one of the school’s governors who had appointed me came in to my office.

She poured herself a coffee, sat down and told me that, as head, I would now be in charge of scattering her ashes on the school site after her passing. It turned out that she had been one of the first pupils through the door when the school had opened in the late 1930s.

By lunchtime, I had begun to feel the creep of imposter syndrome. My then local authority adviser had come in to go through with me, in detail, exactly what was wrong with the school, its budgetary and staffing problems, and its very poor pupil data.

Visions of Disneyland

As the clock clicked around to 3:45pm and my first staff meeting, I confess that I was a little dazed; my new suit was already creased and at least two of my new pencils had been chewed through.

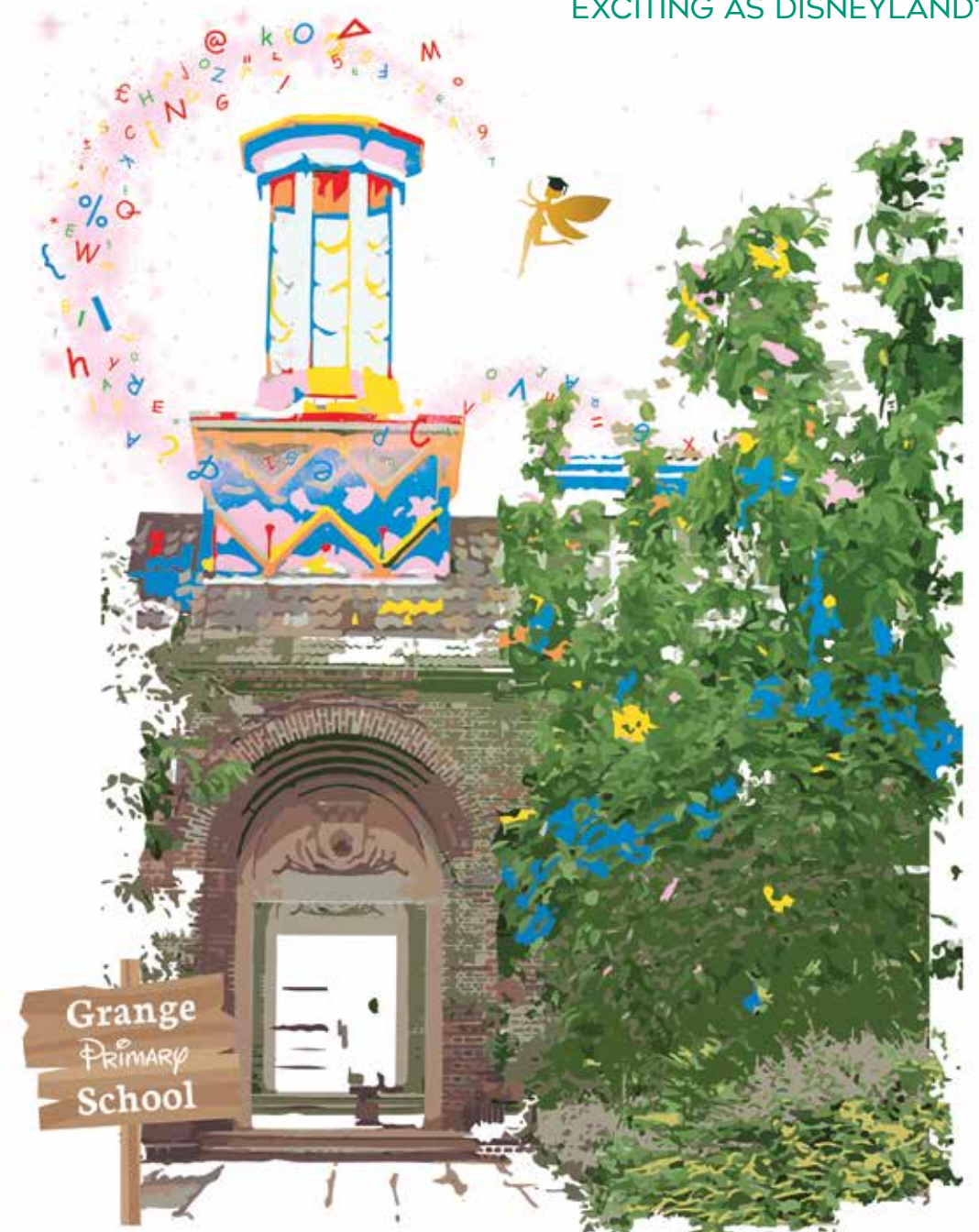
I walked into the staffroom to be met by a sea of faces, full of expectation tinged with cynicism. I had intended to start with Churchillian “fight them on the beaches” stirring oratory, but my mind went blank in front of these worn and exhausted people.

What did finally come out of my mouth had not been deeply thought through or really planned. I asked them all this: “How can we turn our school into somewhere as exciting as Disneyland?”

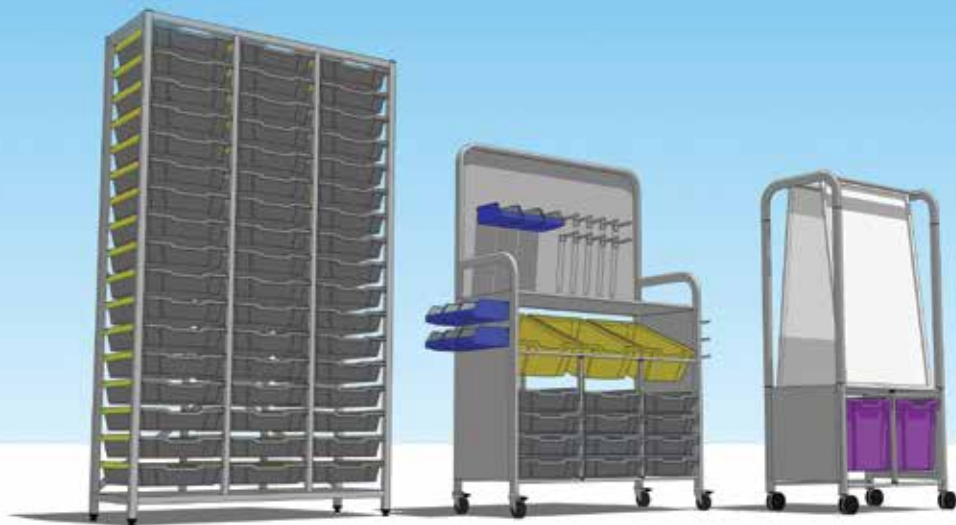
There were a few sniggers. In one corner, I promise you that money was changing hands, as part of the sweepstake on how long I’d last. People did start talking though, and by the end of the meeting there was a little stream of positivity.

When I look back on it now, I realise just how important that question had been for kickstarting the incredible seven-year journey that followed.

HOW CAN WE TURN OUR SCHOOL INTO SOMEWHERE AS EXCITING AS DISNEYLAND?



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...IT'S SOMETIMES THE SIMPLE THINGS THAT GET FORGOTTEN IN THE STREAM OF NEW POLICIES, SYSTEMS AND STRUCTURES.

Over that time, the school flew; mainly because the kids and the staff made it fly. It was described some years later by a visiting group of heads from Australia as the happiest school on earth.

The school achieved so much over those years but it definitely was catalysed by what happened after the Disney question. We agreed that schools couldn't be all smiles and rainbows and, actually, neither was Disneyland. A trip there is riddled with "tough stuff"; queues and challenging weather for example, but it is a place that most children and many adults find magical. A place where people are prepared to endure the tough stuff because of the moments of real joy.

Living, learning, laughing – forging a new environment

We all know that learning isn't easy – it's hard, and at times requires real self-discipline, resilience and trust. But, if we could unpick and translate what Disney does to create such a positive environment, we might just be onto something...that is really where our journey began. It's where our school vision came from.

Three words – 'Living, Learning, Laughing' – went on to drive and define our learning environment; everything we did had to demonstrate those three things and we started with the physical spaces.

In the first few weeks we talked to the children about the sensory spaces around them; the look of the place; the colour of the walls; the sounds; even the smells.

These are things that Disney are masters of – if people have to queue then use colour, sound and smell to make it part of the immersive experience.

We did the same. By the end of my first half term, the entire feel of the place had changed.

We had painted a few walls, introduced some music and some room fragrance, which meant that children, staff and even parents were talking about transformation with a spring in their steps and a smile on their faces.

We focused a huge amount of time and resources on room design and layout, and the school library was

totally overhauled to make it child-friendly rather than adult-owned.

The same was true of the classrooms and public spaces. There were bright colours and furniture – and we used natural light where possible. We used coloured glass to create stimulating spaces. Of course, the real transformation of learning and attainment was going to take longer, but we had sprinkled some fairy dust that led to a momentum shift that was genuinely magical.

We went on to build a radio and TV studio, museum, café and shops – all run by pupils – so we could build a curriculum based around the school as a model "town". These innovative approaches made the school well known and we had many visitors keen to look at how we were making learning relevant and fun for our students.

For all the angst and pressure that teachers and heads are under, I urge them to remember that it's sometimes the simple things that get forgotten in the stream of new policies, systems and structures.

The physical and sensory environments can often drive schools forwards – they are tangible and immediate. In Walt Disney's own words: it's amazing what a little magic can do. ■



Richard Gerver is author of the international bestselling books, Simple Thinking and Change: Learn to Love It, Learn to Lead It. He is now regarded as one of the world's most original and authentic thinkers around human leadership and organisational transformation.



“A REALLY JOYFUL CHILDREN’S ENVIRONMENT WITH GREAT OPPORTUNITY FOR EXPRESSION, MOVEMENT AND LEARNING”

Lene Jensby Lange, the founder of Danish consultancy Autens, describes two of her projects that caught the eye of judges.

THE WINNER IS...

In 2020 two of my projects – Lindbjergskolen and Skolen i Bymidten, Helsingør Skole – were finalists for the prestigious School Architecture Award by NohrCon.

Lindbjergskolen emerged the winner, described by the judges as “a really joyful children’s environment with great opportunity for expression, movement and learning”. The school opened in the city of Herning in January 2020 and it is so much more than a school: it is a local community centre.

As well as the school facilities and afterschool clubs, Lindbjergskolen also houses the local library, sports hall and trampoline centre, offering a wealth of indoor and outdoor creativity, sports and play opportunities to families in the area 24/7.

The 15,000-square-metre building features large amphitheatre seating staircases in all departments, climbing walls, multiple sports facilities both indoors and outdoors, and a loop track around the school and across the roof.

Lindbjergskolen was designed by Aarstiderne Architects in collaboration with Sweco (engineering), Autens (learning environments) and Mutoxia (landscaping). The team, headed by contractor KPC, won the project competition when put out by Herning Municipality back in 2017.

The project cost 200 million Danish kroner (£25m) and was inaugurated in 2020 by the Danish Prime Minister Mette Frederiksen, who – on taking office in 2019 – described herself as “the children’s prime minister” with a clear focus on children’s lives and well-being.

The cross-disciplinary team used their specialisms to meet the city’s design brief by merging, in a powerful way, the functional and technical considerations of architecture and aesthetics with the need to deliver local learning and well-being, creating a truly inviting and well-functioning environment in which the residents of Hammerum and Gjellerup can engage in varied activities and enrich their lives.





Skolen i Bymidten, Helsingør Skole

The transformation of Skolen i Bymidten in Helsingør (immortalised as Elsinore in Shakespeare's *Hamlet*) was completed in January 2020. A combination of ambitious refurbishment and new build, with a budget of 320 million kroner (£40m), the project heralds a new era for the school, giving it a new main building, hall, club and music school.

Commissioned by the city of Helsingør, the school was designed by Kjaer & Richter architects in collaboration with Lyngkilde Rådgivende Ingeniører and I:I Landskab. The build was by Elindco Byggefirma contractors.

The client advisor throughout the project was Kuben Management, working with Autens as the pedagogical advisor to create the design brief. Students, teachers and the local community each played a big role in the early engagement which led up to the design brief, and again by identifying the key principles for the design of the learning space. ■





TEACHING AGENCY, RESILIENCE AND CURIOSITY AMID A GLOBAL PANDEMIC

Jonathan Matta, leading US designer, offers his insights into how educators and their philosophies have reimaged and shaped the classroom environment – and the impact beyond the classroom because of enforced socially distanced learning during the schools' shutdown of 2020.

A few years ago, I was visiting a university when an administrator asked me, “What do you know about active learning?” It struck me, initially, as a rhetorical question. Was this a test?

Once I realised the administrator was in earnest, my mind began to race. Where do I start? All the way back in ancient Greece, with Socrates? I argued that active learning is innate to who we are as human beings. I waxed poetic about the ancient Greek philosophers and how their teachings are at the root of what we know as active learning today.

My interlocutor was unimpressed. He wanted to know how the learning environment could enable active learning. Would desks and chairs on wheels do the trick? Certainly, some moveable furniture would attract and retain students and improve their learning outcomes, right?

This conversation exemplifies the tension between the instructional approach to active learning and the physical design approach. I believe the two approaches are firmly intertwined.

For decades, educators have sought to teach students three core qualities: agency, resilience and curiosity. This quest spawned different approaches to instruction, including active learning and cognitive learning. To bolster these types of learning, educators reimaged what classrooms should look like.

To teach agency, educators craft lessons that encourage students to do more than just submit an assignment in exchange for a grade. Strategies like project-based learning encourage finding solutions to problems that have real-life implications, to developing ideas that can better humanity. By teaching agency, instructors aim to shape the leaders of tomorrow.

Students learn agency through their physical environment when they have complete autonomy over their space. Educators enable this by designating “zones” between which students can move back and forth, depending on their activity, learning style or mood. Instructors also equip classrooms with reconfigurable furniture so that students can create their own workspaces at a moment's notice.

To teach resilience, educators allow students to experience failure. When students create something with their own hands and part of it doesn't work, they have to try something else. When that new part doesn't work either, they have to try again. To physically support this experience in the classroom, teachers introduced maker spaces.



Many educators find they don't have to teach curiosity. They simply have to reignite it. Children are inherently curious. It's the reason they ask “Why?” more than we can usually answer. Educators worldwide aim to push the limits of this curiosity and harness its power for student learning.

“To wonder is to learn. To wonder is to grow. To wonder is to live. Live with wonder, because in the simplicity of wonder lie the answers,” neuroscientist and author Abhijit Naskar writes in his book, *Time to Save Medicine*.

To teach students curiosity is to teach them to wonder. All learning starts with one thought, “I wonder...” Those two words are a pathway towards creative problem-solving.

Although they are intangible, agency, resilience and curiosity are the skills that shape children into the leaders and learners of tomorrow. The reason these skills are so important originates with our history as human beings.

Cognitive enquiry sustained our survival and evolution. After all, how did we hunt for and gather food? Our ancestors certainly didn't learn to do so in a classroom. They had to figure it out for themselves.

Socrates, Plato and Aristotle devised structures and systems of learning to drive cognitive enquiry, which evolved over thousands of years to become the cornerstones of today's schooling, from social learning to the Socratic Method.



But there's only so much agency, resilience or curiosity one can learn in the classroom. At some point, there just isn't "skin in the game". Even if students solve maths problems that involve calculating how they'll save up to buy a house, they know that at the end of the day, it's not real life. It's just schoolwork.

In recent months, the experience of learning has drastically changed. The critical, real-life skills we've designed curricula around are suddenly punching us in the face. Students are being exposed to challenges they've never experienced: a global pandemic, mass economic shutdown, systemic inequalities and widespread civil unrest. Students are organically learning agency, resilience and curiosity as a direct result.

This spring, schools nationwide shut down to stop the spread of the coronavirus. Suddenly, students were thrust into managing their own time and schoolwork, building agency in real life.

I recently conducted interviews with students from all age groups to gauge how they felt about the transition to distance learning. Several students told me they enjoyed the freedom to control how they spent their day. "[Distance learning] just gives me a lot more flexibility to do my work, in the time that I want to do it in, and in the place that I want to do it in," a Year 12 student explained. And a Year 8 student added, "A single student can go at the pace he wants to be instead of the teacher's pace".

Clearly distance learning is not for everyone. A study from the University of London's Institute of Education found that two million children in the UK did almost no home learning during the lockdown; according to the study, which assessed 4,500 UK households, one in five pupils either did no home schoolwork at all or less than one hour a day. Another report, from the National Foundation for Educational Research (NFER), supported those findings, which indicated that a third of pupils did not engage with lessons and less than half returned the work set by their teachers during lockdown.

However, social agency may have been developed through students speaking up about current issues or participating in protests, and hygienic agency by wearing masks and practising social distancing to protect themselves and others.

Additionally, nearly everything young people are experiencing right now is making them more resilient. They're learning to cope with grief and loss – the loss of social interaction with their friends; the loss of extracurricular activities and sports; the loss of educational milestones like the end-of-exam celebrations. Like all of us, they're coping with anxiety and worrying about loved ones contracting Covid-19.

Most of the students I interviewed cited social isolation as one of the most challenging aspects of distance learning. "I really want to see my friends again, in person," a Year 7 student told us. "I'm most upset that



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TO WONDER IS TO LEARN.
TO WONDER IS TO GROW.
TO WONDER IS TO LIVE.
LIVE WITH WONDER,
BECAUSE IN THE
SIMPLICITY OF WONDER
LIE THE ANSWERS.

my hockey season got cancelled," a Year 10 student shared. "I like learning from home but still want to be able to see my friends at school. And I really miss playing sports," echoed a Year 6 student.

So much about the future is unknown right now. But one of the silver linings of that uncertainty is that curiosity comes more naturally to students and adults alike. We find ourselves examining everything: from how to keep people safe and healthy in a pandemic and how to keep our businesses running, to how our histories impact today's socioeconomic inequalities.

Students returning to school have to come back with a shifted worldview. Some will have participated in protests. Others will have lost loved ones. All will have endured some form of social isolation.

As educators, we want to know how we can make the most of this new resilience without being flippant. How can I focus on teaching when I have students who have to find evening or weekend jobs because their mum or dad lost theirs? Are maker spaces and mock think tanks moot in light of all that our students have experienced?

When it comes to the physical learning environment, the answer is fairly simple: educators should strive to create resilient spaces.

I have participated in more than 200 workshops on designing learning spaces. Across the board, the number one request from staff and faculty is for "flexible" spaces. But "flexible" often means "resilient" – classroom set-ups that support various instructional models with the same "kit of parts" or set of furniture.

Students and educators who have now returned to school will have found that resilient spaces are especially important because they'll need learning spaces that support social distancing without compromising collaboration and that support a spectrum of learning styles. They'll need learning spaces resilient to change, no matter the complexities of today or tomorrow.

How to reform instructional approaches for active learning post-pandemic is less clear. Educators should recognise the growth their students will have experienced within such a short time. They should build on that strengthened agency and resilience, empowering students to continue questioning and problem-solving amid all the uncertainty.

Right now, we find ourselves genuinely curious about what the future holds. Will we have regular school days? Will we be able to play sport? Will we have EDSpaces?

We encourage you to ask your children, your students, your peers and yourself slightly different questions. How *might* we have regular school days? How *might* we have EDSpaces? How *might* we play sport?

Today, we're experiencing the real-life circumstances that spur agency, resilience and curiosity – the three components of active learning that educators have tried to design school-based learning systems around for decades. The world is throwing all sorts of challenges at us. There's nothing we can do but embrace them. We'll be better learners – and human beings – for it. ■

Jonathan Matta is National Education Leader at KI.
www.ki.com

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PLANNING LEARNING
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PILOTING EFFECTIVE CHANGE IN SCHOOLS

A new global project is perfecting a unique approach to supporting schools with the initial design of new learning spaces, and the transition to working within them. Murray Hudson explains.

Trumpington Park Primary School in Cambridge has a clear educational vision: it wants to nurture its pupils' independent learning and encourage collaborative approaches. Like many UK schools, however, Trumpington's classrooms weren't keeping pace with their vision, having changed little over recent years. When the school was asked to join a global pilot project to trial the planning tool laid out in the best-selling *Planning Learning Spaces* book (PLS), Trumpington saw it as an ideal opportunity to align its physical learning environments with its educational vision.

The process detailed in *Planning Learning Spaces* delivers a structured methodology through a series of workshops to help schools define their vision, values, ethos and current practice. They then use the framework to develop what they want to do next, looking at every aspect of school life, and map how this relates to learning space design. For example, schools that want to encourage independent learning need the pedagogical approach, the curriculum and the appropriate learning spaces aligned to that aim. A standard classroom is generally one undifferentiated space, making independent work difficult. What the pupils need is a quiet space away from the hubbub of their co-learners in which to concentrate on tasks suited to an independent way of working.

The PLS approach enables schools to identify how to create environments that enable the delivery of their vision.

"As primary practitioners, we are acutely aware of the important role played by the learning environment, however this can sometimes feel restricted by the furniture and fixed features of a space," says Mel Shute, head of school at Trumpington Park Primary. "We are excited for others in education to see what can be achieved by opening your mind to new ways of working."

The Cambridge pilot comes amid significant difficulties schools are facing during the Covid-19 pandemic. Trumpington Park Primary is no different. However, the school is in a position to be able to compare and contrast the challenges and changes the school has had to make to operate on a daily basis. The staff are keen to ensure that collaborative teaching and engagement can continue despite the restrictions.

Two schools in New Zealand have already embarked on the PLS pilot; Trumpington Park Primary will be joined by other UK schools later this term and schools in Europe, North America and Australia will soon follow. The PLS process is suitable for schools looking to repurpose old spaces or for those designing new buildings and helps ensure a successful transition into

these purpose-designed learning spaces.

Professor Peter Barrett, author of *Clever Classrooms* – a leading scientific study on the impact of learning environments on performance and well-being, praised the PLS approach. "It represents common sense about the positive articulation of spaces and pedagogy. Delivering a methodology that makes this connection explicit, and ultimately driven by educational imperatives, is a really important potential contribution and I am looking forward to being involved in the rigorous assessment of outputs from this project."

Terry White, co-author of the book *Planning Learning Spaces*, which outlines the approach used in the project, commented: "By spending time engaging early in the design process with a strong focus on pedagogy and next practice, we can help ensure the long-term effectiveness of these new learning spaces. A structured framework that enables a process of reflection is critical for change and has added significance as we rethink how we use learning spaces as a result of the global pandemic." ■

The Planning Learning Spaces Project is led by Terry White and draws on the expertise of the Gratnells Learning Rooms team. www.gratnellslearningrooms.com

on reflection

ALL CHANGE?

Every 75 years the education system in the UK has undergone a significant new development – and 2020 could become one of the most transformative yet experienced.

In the UK, 75 years is an important interval in educational change. The Industrial Revolution created a need for a generation who could tell the time, with basic literacy and numeracy. That in turn led to compulsory primary education, beginning with the 1870 Education Act (75 years before that, Sunday Schools had begun to flourish).

Three-quarters of a century later, the Second World War had seen millions of children evacuated (having had no schooling for four months) from the big, bombed cities to leafier and less risky locations. Children mixing socially became a catalyst for change, as gaps in attainment between children became stark. A cross-party consensus ushered in secondary education for all. The post-war baby boom saw a dramatic increase in the building of new schools; a new one opened for every day of 1972.

And now here we are, precisely three-quarters of a century later again. This time it is Covid-19 that has changed the circumstances, with a huge percentage of the workforce working from home. “WFH” has become a thing for school students too. So, if this is the next big 75-year change, what does that mean for the design and functioning of our existing schools?

Covid-19 safety measures suggest that we should reduce indoor density substantially: in schools this can be done through better use of outdoor space, staggering attendance, blending learning between off and online, or shorter weeks. But as some schools lock down again worldwide, it’s clear that the schools of tomorrow need to be pretty agile!

Transforming teaching through technology

That new agility can bring much that will be of benefit. A recent survey of a group of qualified teachers who had left teaching made it clear that they would love to retain some teaching as part of their new portfolio careers. We could win back many of the wonderful teachers lost to the profession in the last few decades. As substantial parts of the learning week move online, teachers from anywhere could be part of the learning community once again. We would gain even more excellent teachers!

However, in that same survey, I used Zoom to question groups of returning schoolchildren who had expressed real pleasure in the depth they had been able to achieve in some areas of their learning during lockdown. They enjoyed school, so I asked how many face-to-face days were needed to stay “part of the school community”. Their average response was two days a week. Two! That has the potential to transform the cost of education. A school built for 1,000 can have 2,500 on roll.

Covid-19 has guided us to embrace agility, but how to do so effectively presents us with a design challenge as we configure agile learning spaces for the next 75 years.

Professor Stephen Heppell is CEO of Heppell.net and holds the Felipe Segovia Chair of Learning Innovation at Universidad Camilo José Cela, Madrid.



Helsingør Skole
© Photo: Lars Engelgaard

We believe in keeping the client and the learner at the heart of the design process. The challenge is now even greater. We need to ensure experiences from professionals globally are shared and built upon, to create the future for contemporary education design.

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Please contact Terry White for more information on membership and how schools can be part of A4LE as associate members through partnership working. Email: terry.white@a4le.co.uk.