"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

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

"OUR RELATIONSHIP WITH NATURE IS IN OUR DNA..."

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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