THE USE OF COLOUR IN LEARNING SPACES

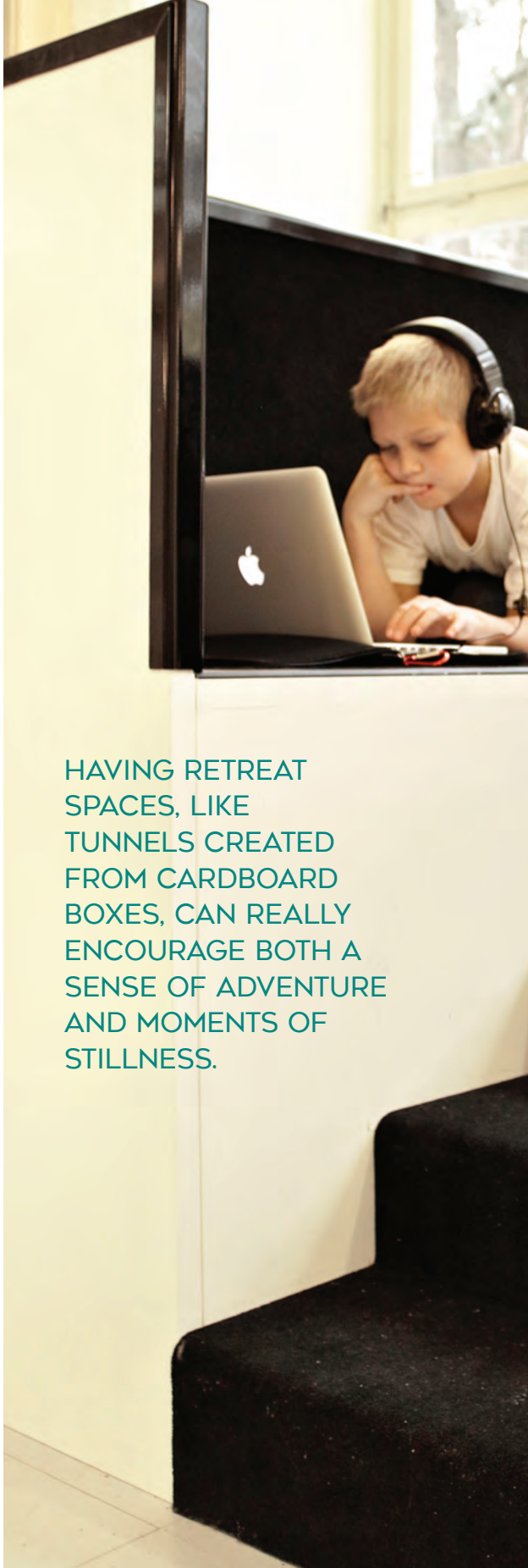
After an intense reaction to the colour of a classroom's floor tiles, Noémie Park was inspired to explore the emotional and physical reactions of humans to colour, and how it impacts learning.

Ripping up the floor tiles with my bare hands wasn't what I had in mind when I was asked to set up an early learning space at an international school in Germany. But as soon as I had stepped into the classroom, I felt queasy. The acrylic floor tiles were what I'd describe as acid sunset orange, and both physiologically and psychologically, the colour deeply disturbed me.

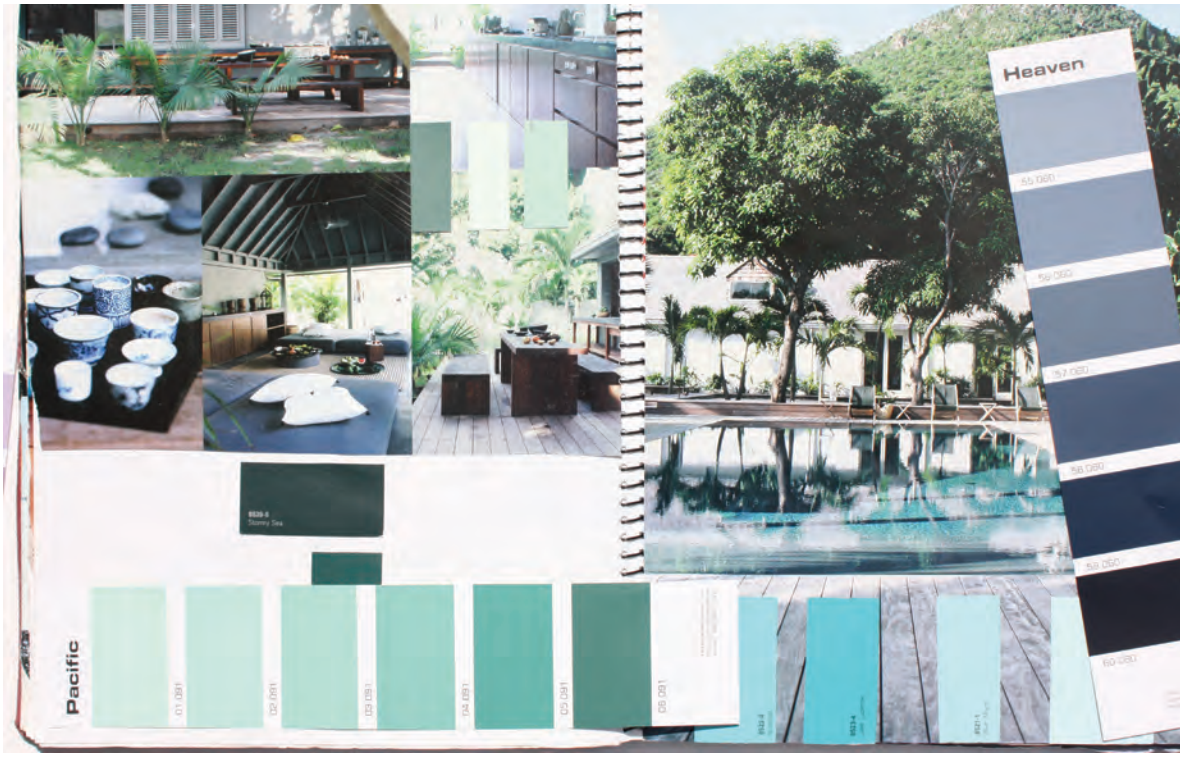
Aside from the tiles, the room had great potential: it was larger than most classrooms in the UK, and it had great natural light along one side. It had been neglected for seven years and was used for the storage of overflow classroom furniture. My job was to transform it into an engaging and thriving learning environment for three–four-year-olds.

My first instinct was that the tiles had to go. The hausemesiter [caretaker] was directed to help me out, and slowly but surely, an entirely different floor was revealed. It was a blue-green wash, and reminded me of a pebbled riverbed. It may have dated back to the building's past incarnation as a Telekom site, but it was cooling and soothing in comparison to what was there before.

That was in 2017, and since then, I've been on a journey of enlightenment when it comes to the use of colour in the learning space.



HAVING RETREAT SPACES, LIKE TUNNELS CREATED FROM CARDBOARD BOXES, CAN REALLY ENCOURAGE BOTH A SENSE OF ADVENTURE AND MOMENTS OF STILLNESS.



The power of colour

So what is colour, exactly? Colour is the sensation produced by the effect of light waves striking the retina of the eye. The colour of something depends mainly on which wavelengths of light it emits, reflects, or transmits. Research has proved that colour is extremely powerful: it builds atmosphere, affects our mood, makes us hungry, makes us agitated or focus more attentively.

The colour red, for example, is used for stop signs, to indicate sharp attention, danger and alarm. Research shows that experiencing the colour red raises respiration, heart rate and blood pressure, and can also heighten the sense of smell.

Other studies have found that the use of white paint on walls, with its high light reflectance value, causes the pupils of the eye to constrict and results in a distraction to vision, and further papers suggest that white walls can dull learning capabilities and discourage morale.

Softer tones of green and blue have been found to banish feelings of chaos, and to soothe people with various sensory conditions. Green has much shorter wavelengths than brighter colours, and therefore results in less stimulation in the brain; studies show that blue reduces appetite and lowers body temperature. Brain research has also established links between blue light, preferably reflected off water, and more-positive mental health outcomes.

So should teachers avoid red and white at all costs, and stick to greens and blues in their classroom? No: a learning space requires multiple outcomes, and it's impossible to eliminate specific colours completely from a space because they all have a purpose.

For example, lighter colours like white can support a room that lacks windows and natural light, and reduce the need for excessive overhead and spot lighting. Warm colours, like red, increase speed and

THE COLOUR RED... RAISES RESPIRATION, HEART RATE AND BLOOD PRESSURE, AND CAN ALSO HEIGHTEN THE SENSE OF SMELL.

grab attention, so could be used in areas of intense conversation in the classroom, or in the sports hall where we want children to be alert.

It's all about achieving a harmonious balance, considering the purpose of placement and remaining consistent throughout the whole school. It's a challenge, for sure.

Sensory overstimulation

For pupils with SEND, using colour to reduce sensory overstimulation is key: and consultation with specialists and school psychologists has led to many adaptations of what and where colours are to be applied on wall spaces, and in hard furniture and soft furnishing.

For example, simple steps include placing rainbow-coloured play objects in neutral wood or clear plastic trays to soften the space and reduce reflective light, or covering red chairs and red table tops with brown packing paper and calico.

In the early years specifically, the room needs to transfer from play to sleep, and therefore sage bed canopies softly cascading ceiling to floor, can add vertical bands of colour while breaking up the flatness of a white wall.

Classrooms without carpeting also offer a great opportunity to use colour because different rugs can be brought in to denote an area.

Oranges and reds work well in the middle and upper elementary class in hard and soft furniture seating arrangements because they provide energy. But in the early years, dominance of these colours can be distracting, and instead, I apply warm colours as an accent in storage tubs, grouped together in one area.

Spaces to retreat

It's important to think about the use of light and shadow too. Having retreat spaces, like tunnels created from cardboard boxes, can really encourage both a sense of

adventure and moments of stillness. I paint these spaces indigo blue and mallard/ forest green to achieve that similar cocooning and light-absorbing effect, and often find pupils snuggled deep in the tunnels with a treasure, whispering to friends or scampering through like baby commandos flashlights grasped in hand.

There's no specific template for which colours are best in the classroom: and things like a region's cultural input and specific geographic site also inform the design.

However, as more educators become aware of the impact colour can have both physiologically and psychologically, I'm hopeful that colour will be utilised beyond aesthetics.

I often wonder what impression of colours in learning spaces children will recall as adults. My pervading memory is asphalt grey. I hope for something more soothing and constructive as we map out the future learning landscapes. ■

Noémie Park is an early years teacher in Germany.

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