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LEARNING LIFE

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The PAL International School@TUFS nursery, designed by Naf Architect and Design Co., Ltd., goes beyond simply serving the need for childcare—it creates new values and excitement around children and their needs.

Photo by Toshiyuki Yano

Read more on page 38.

SOUTHEAST ASIA + HONG KONG + INDONESIA EDITION

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Dear *FuturArc* readers,

In certain circles, Earth is perceived as a kind of 'school' for sentient beings—especially humans—to learn more deeply about themselves. To what end? That depends on what you believe in. Some believe the ultimate purpose of this 'Earth school' is to enable us to learn certain lessons and then transcend them. How do we come upon these lessons? Call it destiny, fate, or what have you, the manner with which this happens differs for each individual being.

Why do I bring this up? Because this issue of *FuturArc* looks at the topic of learning vis-à-vis the architectural space or environment, built and/or natural, in which it occurs, and how sustainably each space is being fashioned to support learning and what lessons—pedagogical, environmental, ethical, and so on—are to be learnt. We also look at learning as not just a process confined to the classroom or school, but also one that is communicated and passed on implicitly, non-verbally. The best lessons are often transmitted in the unspoken; not by words but by actions.

Additionally, we turned the mirror on ourselves as a journal, a platform, of content creation and knowledge sharing. Are we still relevant as a medium through which new ideas can take flight to greater heights, and new stories presented so that readers may glean new insights? We spoke to key individuals in the design and media industry to find out. While all of them gave a resounding yes (print is still relevant!), it is not without irony that this issue turns out to be *FuturArc*'s last.

Yes, this is *FuturArc*'s final issue after 19 years.

"The soul takes flight to the world that is invisible but there arriving she is sure of bliss and forever dwells in paradise." Plato

Personal notes…

I am incredibly grateful to have had this opportunity to be part of something meaningful and impactful. The responses from readers from different countries over the years have definitely kept us going. Beyond exploring projects and points of view, *FuturArc* has also enabled students and professionals to present their designs through its design competitions. Thank you to everyone who has contributed to *FutuArc* in all ways. It has been an extraordinary journey of many lessons and learnings. – *Candice Lim*

More than a decade ago, as an architecture student, *FuturArc* was my introduction to a sustainable built environment. I read the magazine and competed in FuturArc Prize, absorbing timely conversations and design solutions beyond what was in my textbooks or image-sharing sites. I am deeply honoured to have taken up the 'trowel' these past few years in cultivating conversations and documenting exemplary work through this platform. Although the magazine ends here, I hope that we have planted the roots of sustainability for other readers like me. – *Dinda Mundakir*

It has been an amazing 19-year journey with the *FuturArc* editorial team, from the very first edition to this final issue. Countless covers and layouts have been crafted, always with the goal of delivering a "wow" moment for our readers. I'm grateful to Candice for giving me the opportunity to share my photography and sketches in the latest issues. Print media will always have its place, and who knows, maybe our paths will cross again. – *Hans Lim*

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The FuturArc Interview

RUCHI VARMA

Founder and CEO, HumanQind

by **Bhawna Jaimini**

Ruchi Varma is the founder and CEO of HumanQind, a social design enterprise building equitable, kind and compassionate cities. An architect and urban designer by training, Ruchi has been advocating for a human-centred development approach through her work. She has worked extensively in the road safety and urban development sector with government and non-governmental agencies. She is the recipient of 2020 Echoing Green Fellowship and was a Dalai Lama Fellow in 2018. Ruchi spoke to *FuturArc* writer Bhawna Jaimini about building cities through compassion, an approach reflected in her recently completed project, Crosswalk: 250 Meters of Happiness, which won a global honour award at the World Urban Forum 2020 in Abu Dhabi.

All images courtesy of HumanQind

Unlike adults, children are still absorbing what is happening around them. They look at inclusion more naturally and don't have to unlearn.

BJ: In a country like India where there is no public participation around urban development, where did the idea of 250 Meters of Happiness, where schoolchildren led the change on the ground, come from?
RV: There was a sense of frustration from working on projects and visions that were not getting translated or implemented on the ground. I was starting to question if my entire education and training in architecture and design were a myth. Over a period of time, that becomes disheartening because we, as practitioners, have the privilege of knowing how good urban design and planning can impact the experience of urban life by infusing it with warmth and kindness. But often those things get relegated to beautiful renders in immaculately produced reports, which never see the light of day.

The other motivation for this project came from observing the street in front of my house, which has a school on the opposite side. I could clearly see how societal divisions were manifesting themselves into tangible everyday experiences of so many people who are invisible and marginal to the whole development. The sheer increase in the number of gated communities or even a simple thing like the height of the boundary wall, which is now much higher than what it used to be, are all a reflection of our society, which is becoming more and more insular. I was looking for a way through which I can explore care, compassion and nurturing as ingredients of design. I was also concerned about safety issues of children on the street, but that was not the motive. I wanted to have children as co-designers of this project because unlike adults, who more or less have formed their biases and have set ways of looking at the world, children are still absorbing what is happening around them. They look at inclusion more naturally and don't have to unlearn.

BJ: I believe that HumanQind is working with multiple schools across Delhi to implement more school streets like 250 Meters of Happiness. What learning points are you taking from this pilot as you scale up?
RV: The major learning from this project is the fact that children, as young as nine, have internalised and accepted the state of our cities as they see it. They want to have a big car and are not keen on cycling or walking to their school, and are even forming opinions about gender roles. When I first started holding the workshops in the school—a private school—a realisation dawned on me that nowhere in the curriculum are the children acknowledged for who they are collectively today. The focus was so much on their future as individuals. It became clear to me from the first workshop that the children will be co-designers of this street. It was in this spirit of co-creation and 'collectivisation' through which came the blueprint of compassion that we named 250 Meters of Happiness. I was very keen to understand what will unfold when we take this process to other geographies and different school systems because India has varied school systems. We consciously chose different schools with shifting street typologies through which we wanted to address the layers of invisibility. And after working with 10 different geographies, we now know that this process is hugely successful in creating a space where different generations are seen and heard, and are given the agency to bring about change.

BJ: When you say layers of invisibility, what do you mean? Apart from children, who else is invisible in and to our planning procedures?
RV: These layers of invisibility were pointed out to us by the children. When we think of schools—by extension the streets outside—the image of very young children going to school comes to our mind. However, there is a range of four-year-olds to 18-year-olds going to school, who are often accompanied by their parents, grandparents or other caregivers. Schools are places of learning for these children, but they are also places for teachers, cleaners and other support staff required to run these institutions. And of course, there are animals and trees, which are not even acknowledged as stakeholders of any kind. There is a whole ecosystem of networks and connections on our streets that is ignored. And we were only able to grasp the degrees of invisibility because of the lived experiences of children on their everyday journeys to school. This was reiterated and reconfirmed by children we worked with in other 10 geographies too. They all had the same stories to tell, which opened us up to the scale of the systemic neglect.

BJ: Since schoolchildren have been key stakeholders of this project, what do you think we (architects and urban designers) can learn about shaping the built environment from them? And what have you and your team personally learnt from the children in the pilot project?
RV: Architects and urban designers need to see people as people and not just as clients as per their design brief. They need to drop the baggage of being the expert and be willing to listen on an equal level without patronising the people. I would also urge the built environment community to stop [narrowly] addressing the needs of children through child-friendly spaces. Through our process, children brought out an extremely nuanced understanding of spaces because they observe and absorb things very slowly—like telling us where exactly their mothers sit and wait to pick them up or exactly where they can hear the birds sing.

1 Ruchi Varma taking part in painting the mural in India's first school zone co-designed by children
2 to 4 Completed in mid-2024, 250 Meters of Happiness transformed a dangerous street into a lively space for students, caregivers and the surrounding community

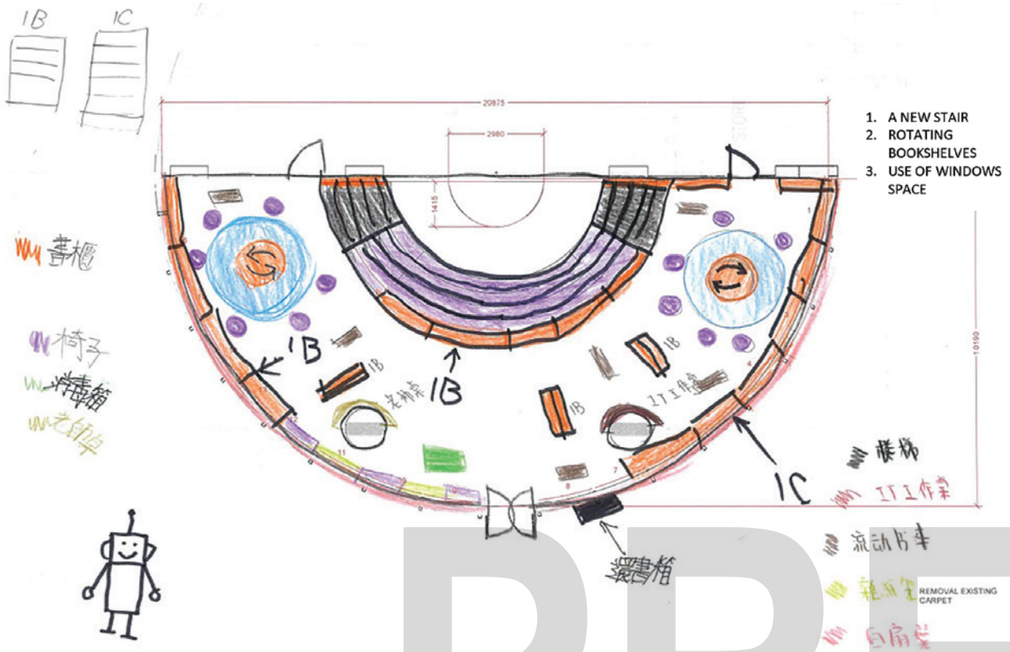


Image courtesy of Architecture for Children **1**

ARCHITECTURE FOR CHILDREN

The saying “hope springs eternal”, attributed to Alexander Pope from his poem An Essay on Man, has been commonly interpreted to mean that something better will always come. In its full form, however, the emphasis seems to be on man’s nature to expect things to be better, not that they always do.

The difference between expectation and actuality lies in how and what we do. Instead of just passively hoping, taking action is what makes all the difference.

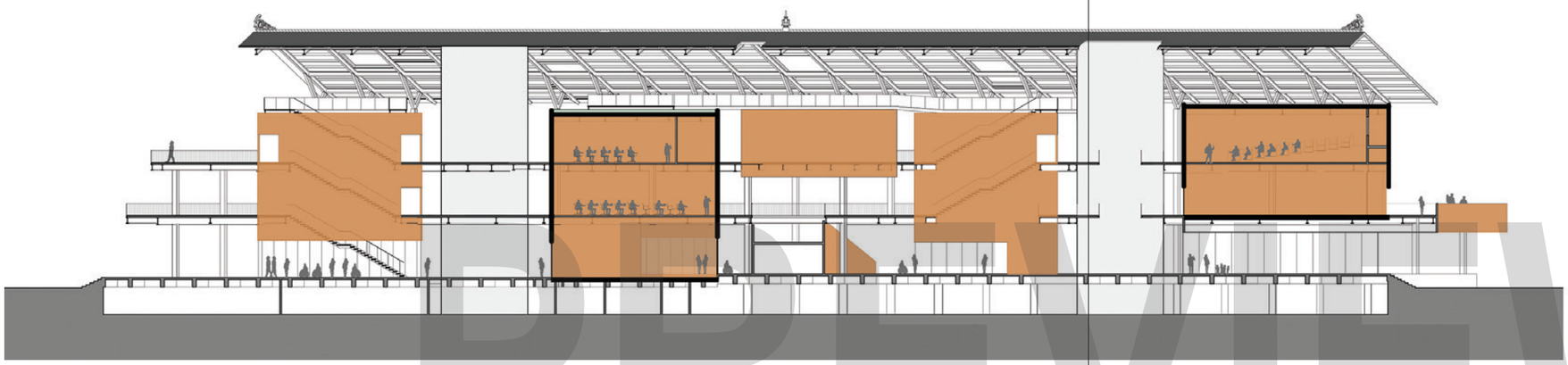
Vicky Chan, Founder of Avoid Obvious Architects, is one such person who has been making a difference. He actively advocates his ethos of holistic, sustainable design through professional work and volunteerism, the latter in educating children on such concepts. He is also Founder of Architecture for Children, a non-profit organisation where he and other volunteers teach children through activities and programmes to learn about sustainable designs with ecology, environment and materials as basis of education and making them a reality.

Here, we look at two of his projects that have been designed and built with a children-first/based approach.

1 Child's sketch of the Library at Kwun Tong Government Primary School (Sau Ming Road) design **2** Aerial view of the Spring Pavilion with surrounding plants

2

Photo courtesy of Avoid Obvious Architects



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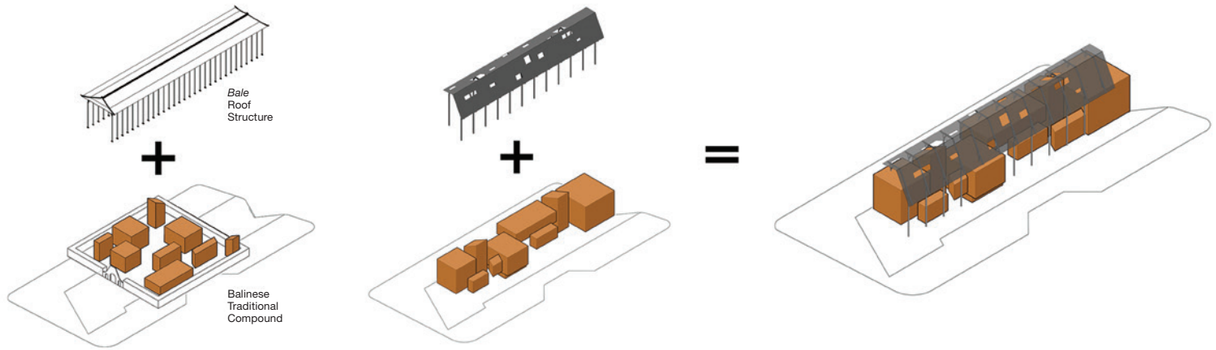


2

1. The *bale* is a multipurpose hall found inside the *natah*, or compound, filled with discrete massing.

2. Under one roof, the boxes are shaded from its equatorial climate.

3. Thus, this brick construction becomes a reinterpretation of traditional Balinese space.

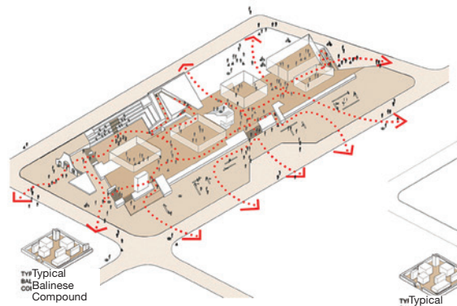
UNITED IN DIVERSITY CAMPUS

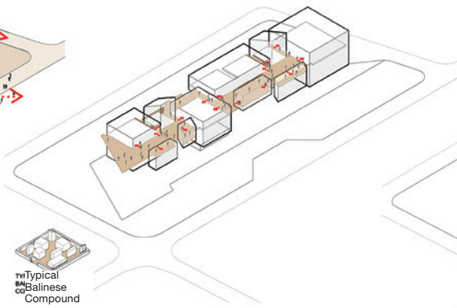
Indonesia is home to around 4,500 universities,[1] ranking second globally after India in terms of the number of higher education institutions. In this context, United in Diversity (UID)—a learning hub co-founded by partners from Universitas Indonesia, among others—aims to complement traditional forms of higher education by specialising on 'lifelong learning' programmes to shape the leadership skills of professionals. Since 2003, the foundation has held transdisciplinary forums, conventions, workshops and training programmes that connect 'tri-sector' leaders: those of civil society groups, government institutions and the private sector.

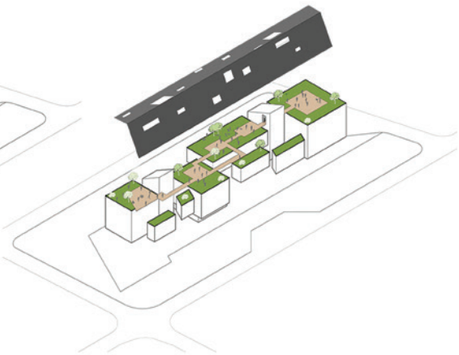
The learning hub's flagship has been built on Bali's Serangan Island, within the Kura Kura Bali special economic zone that is planned to be developed for eco-tourism and creative industries. UID's Bali campus is among the first large-scale buildings to be completed here and will form part of a Tech Park with an ecosystem of entrepreneurship incubators and research centres.[2]

"Where learning and teaching would typically occur only within contained rooms, our design facilitates collaborative learning through formal and informal gathering spaces that are permeable to suit the Balinese climate," Willis Kusuma Architects described.

1 Section **2** Massing diagrams **3** Functional diagrams







3

FREE-FLOWING SPACES
'Glazed' spaces at the bottom create a transparent environment. An outdoor amphitheater becomes an entertainment space.

IN-BETWEEN SPACES
Outside spaces become seamless communal meeting points and study areas.

ROOF GARDEN
A network of bridges and green spaces on top of the large massing creates a path with aerial views around the site.

PAL INTERNATIONAL SCHOOL@TUFS: CHILDREN OF THE HILL

1

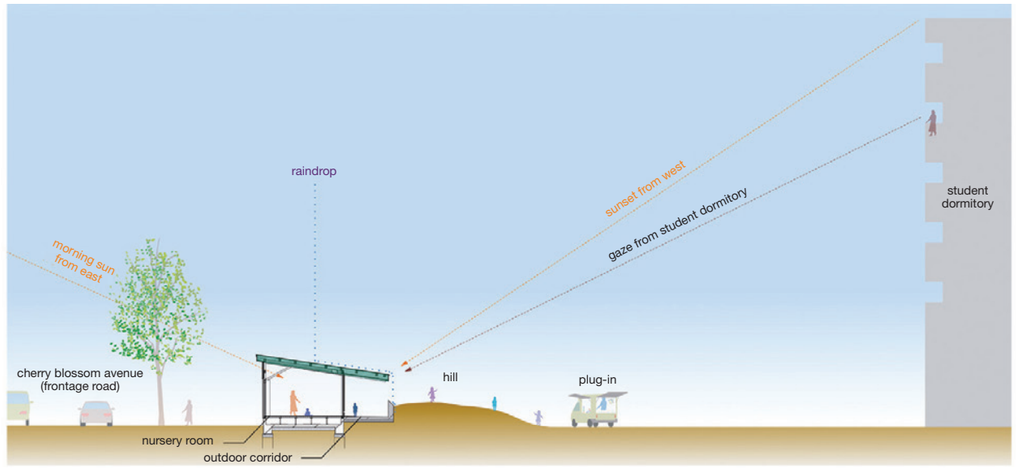
Photo by Toshiyuki Yano

In 2023, Japan established the Children and Families Agency[1], which was tasked with overseeing policies related to children and reversing the country's declining births.[2]

It could be said that this was an accumulation of the momentum already felt on the ground, one that must have been building up from the people experiencing different yet related issues of sustaining children and families in terms of not just social and financial support, but also infrastructure and services support such as amenities, play areas, childcare centres and so on. This nursery project is one such example of fulfilling a need for a university faculty that had the backing of the community by means of a crowdfunding initiative.

ORIGIN

The nursery centre, along with its after-school programmes, is situated on the campus of Tokyo University of Foreign Studies. At the design meeting, the university president said, "It's been our long-standing desire to build a nursery school at the university." While this could be commonly interpreted as being attributed to a higher ratio of women in the faculty, the design team felt that the brief to creating this nursery school extends beyond simply serving the need for childcare—it lies in creating new values and excitement around



2

1 Located at the university's central plaza, this crowdfunded nursery centre becomes a key part of the circulation hub and supports childcare needs
2 Section

PHOTO STORY
MALAYSIA

REMINISCENCES OF A NATURE-BASED SCHOOL

by **Hans Lim**

All drawings and photos (taken in August 2022) by Hans Lim

1

I was a city kid, but when I was in elementary school, I used to stay at my grandmother's house, which happened to be located behind the school. Just a few minutes' walk from a neighbour's backyard is a forest on a hill. Thus, forest exploration was my only after-school pastime in childhood. Catching insects, chasing pheasants, digging 'caves' and rolling in the mud were nothing new, and rattan canes were often the 'main dish' for dinner (my punishment for coming home covered in dirt).

Times have certainly changed—it is now almost a challenge for urban children to get in touch with Nature, let alone watch poultry roam within the vicinity of their homes.

Working on *FuturArc* since its very inception, I have seen beautiful early education buildings published in the magazine, such as the Green School in Bali, where 98 per cent of it was constructed out of bamboo and set within lush natural surroundings.[1] The core idea of the school's approach was that children can pay more attention to learning while growing up amidst Nature that can be seen, smelled, heard, tasted and touched.

In 2022, on Malaysia's National Day, Kuala Lumpur Steiner School had a one-day open house for the public. Architect Clement Wong, one of the school's founders, who was also a speaker at an upcoming TEDxPetalingStreet event, led a guided tour for the team, including me, of the urban forest school, which was established in 2019.

森林学校

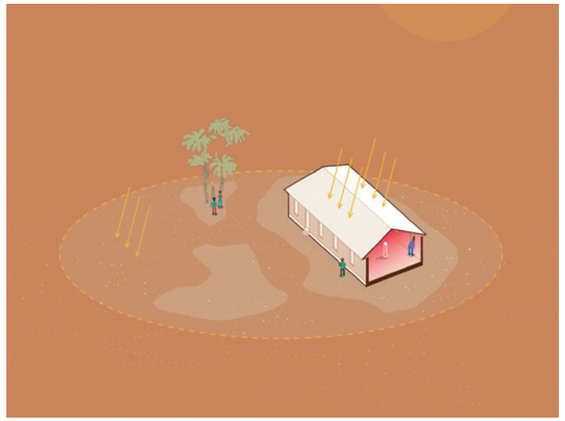
我是个城市小孩，小学时常常待在祖母家，那里位于靠山的学校后方。只需几分钟，我就能通过邻居的后院直接抵达后山的森林。因此，森林探险成为我童年唯一的课后消遣。抓虫、追野鸡、挖山洞、在泥巴里打滚，变成了我日常生活的一部分。晚餐时藤条更是成为我的“主菜”。

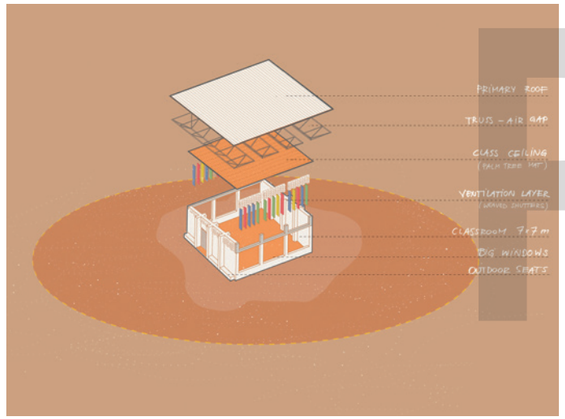
随着时代变迁，今天的城市孩子接触大自然几乎成了一种挑战，甚至在家门口见到活生生的家禽，也成了一种奢望。

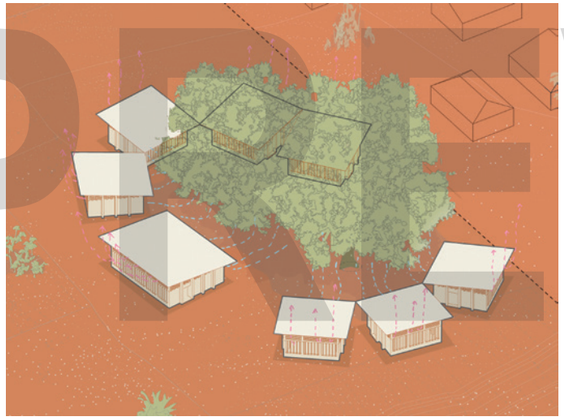
自从成为 FuturArc 设计师，我就常在杂志上看到设计精致风格又独特的教育建築，例如巴厘岛的绿色学校，它由 98% 的竹子建造，坐落在郁郁葱葱的自然环境中。学校的核心理念是希望孩子能够在可触、可见、可闻，甚至可听的大自然中学习和成长。

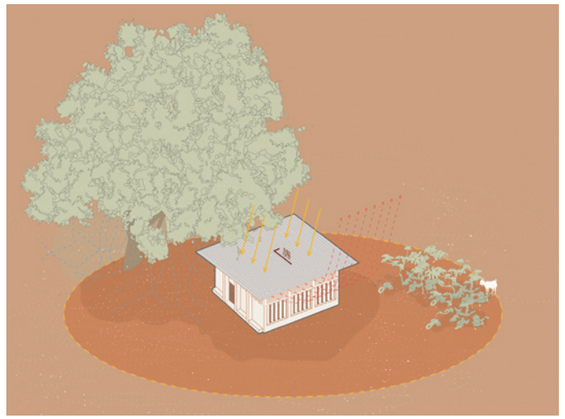
2022年，马来西亚国庆日当天，吉隆坡施泰纳学校举行了为期一天的开放日活动。学校的创始人之一、建筑师黄晓斌 Clement Wong，他也是当年TEDxPetalingStreet其中一位讲者，亲自带领团队，包括我在内，参观了这所成立于2019年的城市森林学校。

1 Built on a hill, the school comprises small masses of classrooms and various supporting spaces, including a book store, parents' lounge and teachers' residence









1 & 2 Conceptual design diagrams

2

WAYAIR SCHOOL IN ULYANKULU, TANZANIA

Ulyankulu is a former refugee settlement in the Tabora region, located in the western part of Tanzania. The inhabitants had fled Burundi following ethnic violence and killings in 1972. Since the 1970s, the settlement has transformed into a town: people made improvements to their homes, electricity poles were laid out and the local markets began to expand. In 2015, the refugees and their families were granted Tanzanian citizenship, which permitted them to stay in the country.

This unique context posed a logistical challenge for the construction of public buildings, including schools. The area's specific designation as a former refugee settlement required additional construction and entry permits. Its remote location further limited access to resources and significantly raised transportation and material costs. And finally, the experience of exile, displacement and isolation that Burundian refugees and their families have lived over the decades necessitated special considerations with the community regarding the ethics, role and purpose of the project.

"Ulyankulu is a very simple village when looked at [from] its architectural typologies," the architects shared. "Refugees built very modest shelters, mostly brick rectangular huts with pitched, corrugated metal sheet roofs … We believe that different spaces promote different activities, that both the abundance and the diversity of spaces are assets for living. There is no shortage of the first, but the latter is in short supply in Ulyankulu", wrote the architects.

LESSONS IN BUILDING A BETTER WORLD

by **Kester Ray de Vera** and **Trinnah Marie Caracho**

Photo courtesy of The Modern Balsa Initiative 1

Not all classrooms have walls. In reviewed studies,[1] learner-centred experiences, collaborative learning activities, hands-on learning and peer mentoring, among others, are emphasised in the pedagogical approaches to education outside the classroom.

Experiential learning is an active process in which students encounter authentic problems, construct novel hypotheses, test for real solutions, and interact with others to make sense of the world around them (Claiborne et al, 2020).[2] At the individual level, the benefits include:

- a bridging of the gap between theory and practice;
- a better appreciation and application of the concepts and principles learned;
- a deeper understanding of how their work impacts the world and refining of skills in ways that simply cannot happen in the classroom.

Architecture students might spend hours studying building codes, design theories and material science in class. It is only when they work as interns on an actual design project that they begin to see how those concepts come together in a functional, living space. Likewise, engineering students may delve into highly technical topics, learn about structural analysis and mechanical systems and apply calculations in designing hypothetical structures. Through hands-on practice such as supporting a house design project or working on a construction site, they encounter challenges and sense nuances that textbooks alone cannot provide.

AT THE INDIVIDUAL LEVEL

In structured learning in a classroom setting, the dynamics of working together with one's classmates under the teacher's guidance is an introduction to collaborative work. But it is greatly different from the real world. These experiences outside the classroom encourage essential life skills such as teamwork, communication and problem-solving, which are fundamental to the engineering and architecture fields. In hands-on learning or under mentorship, students are often asked to collaborate with diverse teams—be they architects, engineers, contractors or clients. Moreover, one must navigate different perspectives, deadlines and constraints. These experiences teach students how to adapt and innovate under pressure, manage complex tasks, and communicate their ideas effectively.

Stephanie Nepomuceno, an architecture student in her final year and a freelance artist doing murals and painting, said, "Designing and planning are not merely about creating something visually appealing; they carry the essence of dignity, pride and soul. Have the courage to face the unfiltered realities of the world. Discover your purpose, strive to understand others, walk alongside them, empathise deeply, and take meaningful action!"

Designing and planning are not merely about creating something visually appealing; they carry the essence of dignity, pride and soul.

She was among students who took part in the Young Builders Mentorship Program (YBMP) by Habitat for Humanity Philippines that provided mentorship to students and honed their technical and leadership skills (read more in Sidebar). The current batch of mentees were involved with projects in Caloocan and Valenzuela City in Metro Manila and Cavite in Luzon. Nepomuceno, on her part, facilitated a participatory design charette with the community members and prepared a conceptual design of a multi-purpose facility that will be built in the community.

These hands-on experiences give students a sense of purpose that goes beyond passing exams. The students realise that designs are not just ideas on paper—they can change lives, including their own. "Given that Habitat for Humanity's mission is to provide affordable housing to all, I think it's critical to get involved in initiatives that reflect your own ideals. Through this exposure, I was able to find a greater meaning for my profession. I am excited and look forward to participating more in Habitat for Humanity's programmes in the future", said another mentee Yancy Jema Gracia Alleda, an architecture student in her final year. Following consultation with the community, she created 3D massing with studies, diagrams and street sections, exterior and interior perspective images for the project's shared street concept.

For effective learning to occur, there must be a unity of thought and action. We can learn all about sustainable building methods. But our 'eureka moment' comes when we apply the theory and build a sustainable home that opens the door to changing lives. By stepping out of the classroom, students come forth to solve real problems and create spaces that serve people. Technical skills are no longer viewed through a 'clinical' lens; rather, they take on a deeper, human-centred meaning. Students are reminded that what they work on has the potential to make a lasting impact on society.

AT THE SOCIETAL LEVEL

The local community who interacts with students outside the classroom also provides insights

Photo courtesy of Habitat for Humanity Philippines 2

1 The Modern Balsa Initiative co-founder Augustus Nicko Bas (left) working with a trained carpenter from the community to prepare a simple rainwater harvesting system **2** Stephanie Nepomuceno, a mentee of YBMP, presenting a conceptual plan to members of the Sterling Park community in Caloocan City, Metro Manila, in August 2023

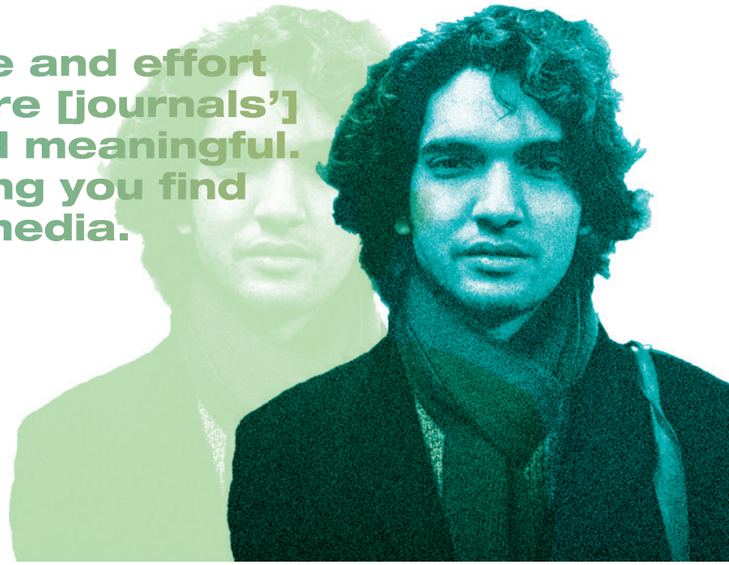
IN CONVERSATION

In this issue about sustainable learning environments, we decided to turn the mirror on ourselves, so to speak, as we too are an ‘environment’ that seeks to encourage learning by providing a space to enquire and explore what sustainable architecture is. Thus, we asked some notable voices in the fields of design and media, from creators and curators to storytellers and story-makers, key questions such as: whether journals and magazines like *FuturArc* are still relevant, and how the format and nature of our existence and expression factor into our purpose in this world (of media and beyond).

NIPUN PRABHAKAR

Photographer-Journalist; Architect-Designer

Nipun Prabhakar is an independent photographer and architect who works with various South Asian indigenous communities, at the intersection of ideas, artefacts, folklore and the built environment. His work has appeared in major publications like *The New York Times* and *The Washington Post,* etc. In 2023, Nipun was invited to the Royal Institute of British Architects (RIBA) in London to present his work on architectural photography. He is also the founder of Dhammada Collective, a design group working towards a conscious, sustainable and equitable world. Nipun has been contributing his voice in words and photography to *FuturArc* since 2021. His writing and pictorial portrayal of issues that matter to him have found a deep connection with the magazine team and readers.



I have seen the time and effort it takes to make sure [journals'] content is clear and meaningful. That is not something you find on blogs or social media.

What is the role of architecture journals today?
Architecture journals are important because they give us curated and focused content. Online platforms have too much information, most of which are not filtered or checked. Journals stand out because they go through a proper editing process. As someone who has written for them, I have seen the time and effort it takes to make sure the content is clear and meaningful. That is not something you find on blogs or social media.

Are they still a vital learning medium?
Yes, they are, but not all journals are equal. Some still maintain their reputation for high-quality content. But others have shifted focus. They now feature projects because studios or PR agencies pay for it. That makes people question their credibility. The journals that stay vital are the ones that stick to honest reporting and thoughtful analysis.

Do students and professionals read and refer to them?
From what I have seen, professionals refer to journals more than students—they often use them as reliable sources for ideas, references, or to stay updated. Students, on the other hand, seem to use online platforms more because they are free and easy to access. However, when it comes to serious research, journals still have an edge because they offer credible and in-depth content.

Is there a need for print media today? What are the pros and cons?
Yes, there is still a need for print media. Print has a unique value—it takes time to create, and people who buy it usually give it the time it deserves. It is more thoughtful and lasting compared to digital media. The main downside is the cost. It is expensive to produce, and not as many people buy print today because online content is often free. But for those who care about quality and permanence, print remains important.

***The Atlantic* is doubling down on print by becoming a monthly (again) in January 2025, going against the grain in today's media landscape. What are your thoughts regarding such examples?**
Its decision is rare but interesting. Many magazines are cutting back on print because it is expensive and hard to sustain. But *The Atlantic* seems to be confident about its audience and content. It reminds me of traditional crafts. Some artisans manage to keep going by focusing on quality and building trust over time. *The Atlantic* is doing something similar—they are betting on their ability to produce something people will value, even if it is not the trend right now.

Are there any pointed observations that you'd like to add?
Print media should not try to compete with digital platforms in speed or convenience. Instead, it should focus on what it does best—offering in-depth, thoughtful analysis, and something physical that readers can hold on to and return to. If journals stay true to that, they will always have an audience, even in a digital-first world.

IAN TAN, PHD

Research Lead; Heritage Storyteller

Ian Tan tells stories about the urban environment we live in. He uses his understanding of cultural heritage, placemaking and conservation to do so. Through interactions with other built environment professionals, he is also inspired by emerging technologies, innovative building solutions and new design strategies that can create a more liveable and inclusive environment for all. He has a PhD in Architecture and currently works at Arup, a global sustainable development consultancy.

What is the role of architecture journals today? Are they still a vital learning medium?
In architecture school more than a decade ago, I remember trade journals were the go-to sources for recent regional and international projects. Titles like *A+U, El Croquis* and *Architectural Record* were the standard bearers for the most up-to-date architectural tastes and best examples of framing and rendering one's design.

Just a decade later, with the proliferation of architectural sites and social media, we no longer lack access to beautiful images and provocative designs. I feel longstanding architectural journals now have the responsibility of setting the tone for critical architectural discourse through thoughtful interviews and multi-perspectival commentaries. While macro-issues like climate change and sustainability are at the forefront, regional-specific issues like cultural heritage and sustainable materials must also be championed.

Do students and professionals read and refer to them?
Is there a need for them today? What are the pros and cons?
It is a controversial stand, but I think professionals value their projects being featured in print more than online media. Newspapers and journals are viewed more positively, and are seen as more credible information sources.

Trade journals are valuable because they represent a sense of curation in terms of how viewpoints are being presented and how third parties, such as writers, photojournalists and editors, offer new perspectives that are more diverse compared to project components simply submitting their press release and images to online platforms.

That saying, the downside of trade journals is their awkward position between a journal published and written by professional bodies (for example, SIA, HKIA) and those catering to those academically inclined (for example, *Harvard Design Magazine* or *RIBA Journal*). It needs to find its unique selling point and be able to attract both high-quality readers and advertisers, without either party hating each other.

The Atlantic **is doubling down on print by becoming a monthly (again) in January 2025, going against the grain in today's media landscape. What are your thoughts regarding such examples?**
I think the most successful media outlets exist as both online and in print. Examples include *art4d* (Thailand) and *ArtAsiaPacific* (Hong Kong). Versatile editorial teams adopt different cadence and depth catering to the varying attention spans of online and print readers.

Are there any pointed observations that you'd like to add?
Will architectural magazines go the route of artisan zines? One of my favourite architectural magazines CLOG (https://www.clog-online.com/) seems to suggest that.

Professionals value their projects being featured in print more than online media.

MILESTONES

Global

Countries' first climate transparency reports submitted to the United Nations

On the last week of January 2025, United Nations (UN) Climate Change News reported that 90 countries under the Paris Agreement have submitted their first Biennial Transparency Reports (BTRs) outlining their progress and commitments to reach climate targets by 2030. These reports are countries' primary reporting mechanism under the Paris Agreement's Enhanced Transparency Framework (ETF), specifying efforts in limiting and adapting to climate change.

"Transparency is crucial, not only because it highlights progress in climate action but because it spurs more action: enabling data-driven responses that build resilience and protect vulnerable populations by identifying risks and vulnerabilities, and leading to better resource allocation," said UN Climate Change Executive Secretary Simon Stiell at the 29th Conference of the Parties (COP29). "Every submission, every lesson learned, brings us closer to the goals of the Paris Agreement."

Here are some countries' specific policies or actions that are related to the built environment that have been included in the reports.

China
Since 2017, China has carried out sponge city pilots in 30 cities and demonstrations in 60 cities, aimed at enhancing climate adaptability in urban and residential environments. Through this system, they were able to identify existing challenges against extreme weather, such as rainstorms, and implemented targeted redevelopments to enhance urban safety and resilience. Furthermore, networks of climate change monitoring stations in the critical plateau areas—which play a significant role in Earth's overall climate system—have also been established or strengthened. This includes the Lhasa River Basin in the upper reaches of the Yajiang River; a carbon flux monitoring network for high-altitude ecosystems in the Qinghai-Tibet Plateau; and a gradient-connected meteorological observation station at Mount Everest, to improve ecological risk reporting and warning mechanisms.

Indonesia
The country's National Inventory Document shows that the construction sector (grouped together with manufacturing) emitted the second highest total greenhouse gases due to energy consumption at 204,612.78 kilotonnes of CO_2. To reduce emissions in line with Nationally Determined Contributions (NDC) targets, the Ministry of Environment and Forestry has released the Roadmap of NDC Means of Implementation 2023–2030 to function as an operational guide and strategy for technology transfer and development. Some of the technologies being implemented include remote monitoring of solar photovoltaics to ensure efficient renewable energy utilisation and a web-based spatial data portal to improve and update the national mangrove map for coastal resilience.

Malaysia
The report identified factors that contribute to a decrease in emissions from the manufacturing and construction industries, such as a significant drop of natural gas consumption in 2008 and a sharp decline in 2020 due to the impact of travel restrictions during the COVID-19 pandemic. However, the residential sector saw an increase in emissions in 2020, which was likely due to the surge in work-from-home arrangements. Malaysia has also developed their Low Carbon Aspiration 2040, including targets such as a higher level of urban public transport modal share, electric vehicle (EV) penetration, share of alternative lower-carbon fuels in heavy vehicles and marine transport, and enhanced energy efficiency in industrial, commercial and residential sectors. In addition, the aspiration plan entails a higher level of renewable energy penetration in the installed capacity and total primary energy supply (TPES).

Photo by Vugar Ibadov/UN Climate Change

Closing plenary of COP29, presenting the 2025 UN Climate Change Conference (COP30) that will be held in Belém, Brazil

Photo by Lucia Vasquez-Tumi/UN Climate Change

Simon Stiell addresses the closing plenary of COP29 and waves a copy of the Paris Agreement

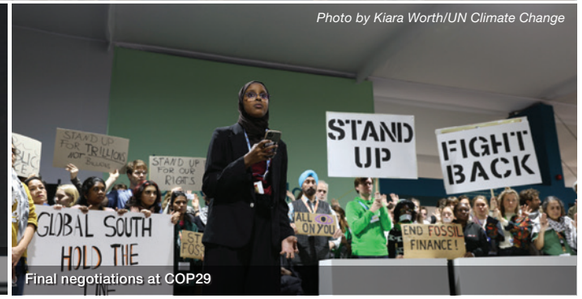


Photo by Kiara Worth/UN Climate Change

Final negotiations at COP29


Photo courtesy of Yu Kongjian

Minghu Wetland Park by Turenscape; the firm's work has influenced the guidelines for China's sponge cities (read more in *FuturArc* 4Q 2019)


Photo courtesy of Surbana Jurong Group (SJ)

SJ Campus is an example of a Super Low Energy (SLE) building in Singapore (read more in *FuturArc* 4Q 2024)

Singapore
Observations by Meteorological Service Singapore (MSS) showed that the warming trend experienced in Singapore over the past decades continued in 2023. As a highly urbanised island state, a key part of Singapore's climate change mitigation strategy is the Greening of buildings, including through certification and rating systems such as Green Mark. The latest edition of the Singapore Green Building Masterplan (SGBMP) was co-created with over 5,000 individuals across the built environment sector and the wider community, pursuing more ambitious sustainability standards. In addition to greening 80 per cent of buildings by gross floor area (GFA) by 2030, two new goals have been introduced: for 80 per cent of new developments to meet Super Low Energy (SLE) standards from 2030; and for best-in-class buildings to achieve 80 per cent improvement in energy efficiency from 2005 levels by 2030.

Thailand
The Office of Natural Resources and Environmental Policy and Planning (ONEP) has issued operational guidelines to drive the sustainable management of green spaces, with the second phase spanning till 2027. The goal is to ensure that municipalities or local administrative organisations across Thailand provide at least 10 square metres of public green space per person and that green space constitutes no less than 10 per cent of urban areas. The country also aims to expedite the integration of a climate-resilient building approach into the standards and regulations of building designs to be consistent with the changing climatic conditions and degrees of the severity of natural disasters in each area. In support of this, in 2023, the Department of Public Works announced and enforced a ministerial regulation on the design of building structures and the characteristics and specifications of materials.

Next steps
BTR submissions undergo independent technical expert reviews, which has begun in 2024. These reviews involve a thorough assessment of each report, identifying progress towards NDC targets and capacity-building needs, and supporting the countries to improve future reporting. Following the review of BTRs, the ETF's multilateral phase—known as Facilitative Multilateral Consideration of Progress (FMCP)—will encourage countries to share experiences, successes, challenges and insights in implementing the Paris Agreement, driving global cooperation to deliver climate action and support. Lessons learned from these processes are aimed to enhance countries' long-term capacity to collect and analyse data, inform policy decisions, and implement effective climate action.

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