

# PENANG MONTHLY

JUNE 2025 | FREE COPY

FEATURE

BUKIT KOTA & BUKIT  
INDERA MUDA: A FORMER  
SOCIO-POLITICAL CENTRE

PHOTO ESSAY

POSTCARDS AND PHOTOS  
OF PENANG'S HILLS

FEATURE

COLLECTIBLES IN  
THE HILLS

## HILLS OF PENANG





X

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- 1 Supply Penangites with information about significant issues in order to promote public participation;
- 2 Encourage discussion about various aspects of Penang's fate and fortune;
- 3 Profile Penang personalities who have contributed, sometimes in very unassuming but critical ways, to the reputation and wellbeing of the state;
- 4 Put the spotlight on ordinary Penangites who otherwise go unnoticed, but who nevertheless define the culture of the state in essential ways;
- 5 Highlight the importance of Penang as a generator of culture, education, industry and cosmopolitan values;
- 6 Emphasise present trends in the arts, industry, politics and economics which affect the immediate future of the state and country; and
- 7 Offer reliable socioeconomic data for the benefit of decision makers in government and the private sector.

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**EDITOR**

Ooi Kee Beng

**ASSISTANT EDITORS**

Sheryl Teoh and Rachel Yeoh

**COMMUNICATIONS**

Iylia de Silva

**BUSINESS MANAGEMENT**

OGL Consultancy

**GRAPHIC DESIGNERS**

Kai Fam and Kevin Teh

**LOGISTICS EXECUTIVE**

Muhammad Amirul Naim

**PRINTER**

The Phoenix Press Sdn Bhd (1723K)  
2509 Jalan Perusahaan Baru,  
Prai Industrial Complex,  
13600 Prai, Penang, Malaysia.

**GENERAL ENQUIRIES & CONTRIBUTIONS**

editor@penangmonthly.com or  
contact +604 228 3306 (Extension 223 or 225)

**BUSINESS ENQUIRIES**

business@penangmonthly.com

**PUBLISHER**



10 Brown Road, 10350 Penang, Malaysia

**T** +604 228 3306

**F** +604 226 7042

**IG** @PenangMonthly

**FB** fb.com/penangmonthly

**W** penangmonthly.com

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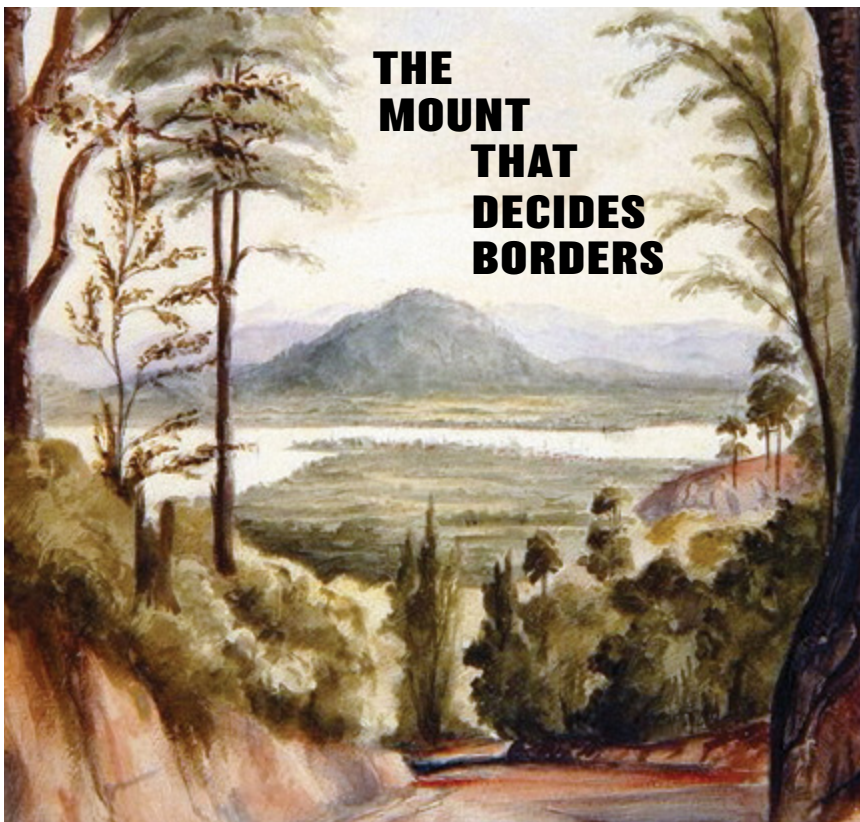


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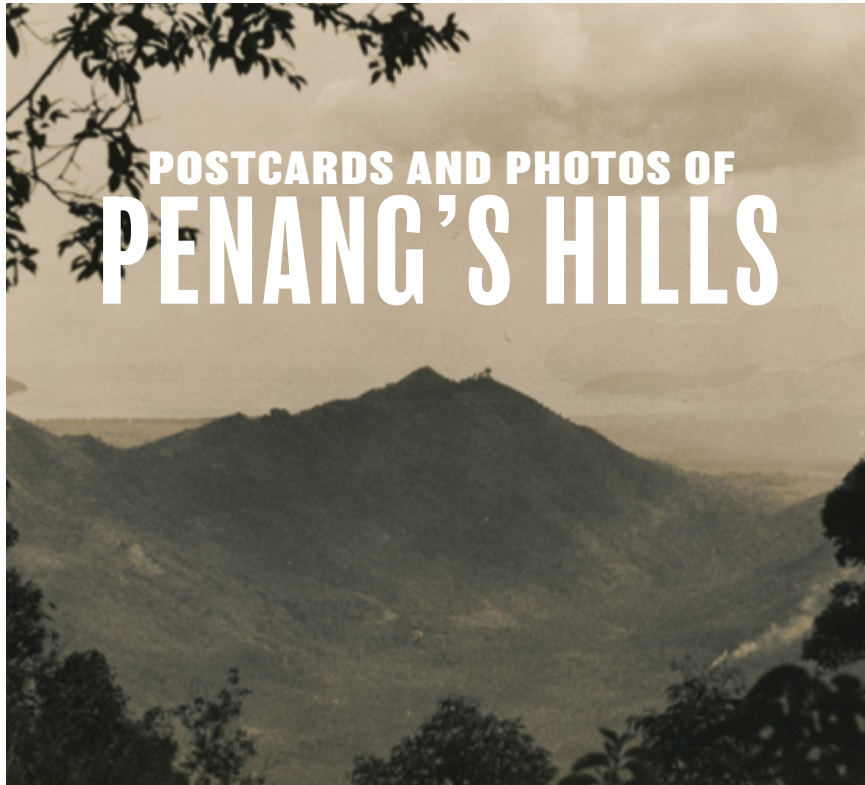
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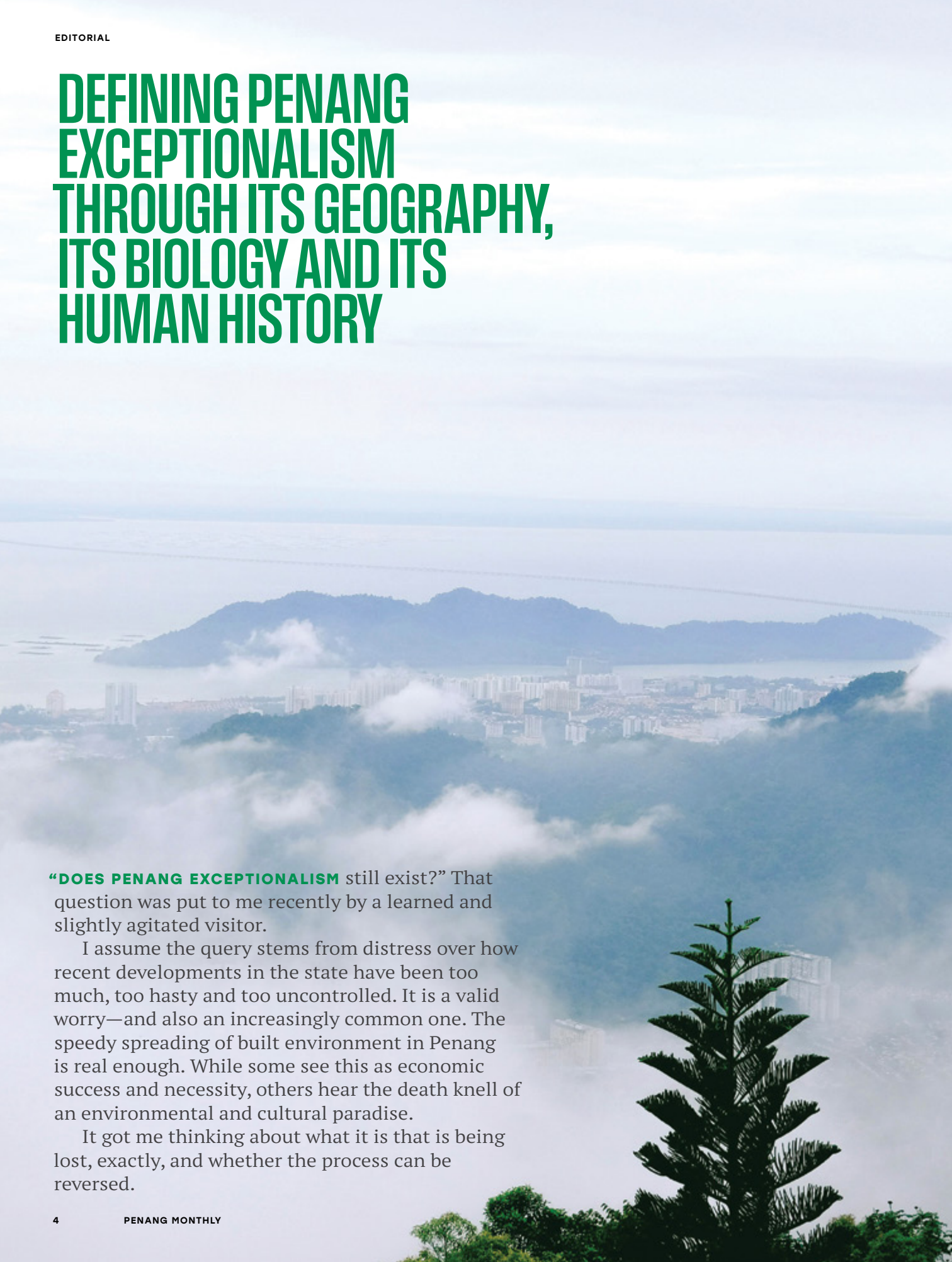
# THE CONTOURS OF HOME: FROM PALAIS TO PULAU, AN EXHIBITION ON BELONGING AND ODDITIES

# DEFINING PENANG EXCEPTIONALISM THROUGH ITS GEOGRAPHY, ITS BIOLOGY AND ITS HUMAN HISTORY

**“DOES PENANG EXCEPTIONALISM** still exist?” That question was put to me recently by a learned and slightly agitated visitor.

I assume the query stems from distress over how recent developments in the state have been too much, too hasty and too uncontrolled. It is a valid worry—and also an increasingly common one. The speedy spreading of built environment in Penang is real enough. While some see this as economic success and necessity, others hear the death knell of an environmental and cultural paradise.

It got me thinking about what it is that is being lost, exactly, and whether the process can be reversed.





One trait in people from Penang is that they are passionate about the place. Besides being their home, it is almost a holy place to them—a blessed place that inspires, attracts and awes most visitors. I remember Penang people decades ago would brush off glib criticisms about their love of the place with the glib remark that “it’s the water we drink”.

That comment may actually carry more meaning than they imagined.

Let me attempt a response that is more considered and broad, and that, at the same time, accentuates Penang’s historical, physical and geographical realities. Whatever I put forth will, in most other eyes, be subjective, more reflective of my own worldview than anything else.

Firstly, being a small island situated at the northern end of the Malay Peninsula and at the entrance into the Strait of Malacca, Penang exhibits signs of geological and marine forces that had been at work millennia ago. The Penang Strait, 2.4km at its narrowest, makes the island’s connection to the peninsula undeniable. It is an island, but stays closely attached to the rest of the world.

If I stand atop the range of hills in the middle of the island, and look south-east, I cannot help seeing the lower series of highlands rolling away in that direction. There are the Paya Terubong hills lying between this main range and the eastern coastline, and then there is the islet of Pulau Jerejak standing a few hundred metres off the shore. Beyond it are the islets of Pulau Aman and Pulau Gedung. Then, come the faraway but visible hills of the mainland. What strikes the casual observer is that these ridges run parallel from north to south, aligned both to the peninsula’s general layout and reflective of the flow of strait currents.

This easy observation says something important about the splendor of Penang’s natural location and its physical surroundings. Its geological environment remains evident, as yet unhidden by its expanding built environment, as has been the case in most other big cities not properly planned. Penang was never properly planned, and yet its seas and hills continue to complement each other, comforting and benign.

Secondly, for 250 years, the West has met the East here, the latter in its major forms: Chinese, Indian, Middle-eastern and archipelagic. The modern has had to adapt to the old, and vice versa, resulting in hybrids of all kinds.

Thirdly, while population growth has greatly affected the cape that now houses George Town and the northern coastline, along with the plains to the east and west of Penang’s hill range, the highlands remain visibly green even if occasionally threatened by eager developers. They continue to act as a vibrant and verdant backdrop that softens the intrusion of the tall buildings that now make up the cityscape and cover the original floodplains.

Significantly, in September 2021, over 12,000ha in the northwestern part of the island, and extending into the sea, gained recognition from UNESCO, which named it a Biosphere Reserve. This followed the July 2008 listing of George Town as a UNESCO Heritage Site. Furthermore, in recent years, as part of the state government’s Penang2030 vision, plans have been afoot, driven by Penang Institute and Universiti Sains Malaysia, to preserve the Middle Bank stretch of sea lying between the island and the mainland as a marine sanctuary for biodiversity studies and research.

These phenomena, both natural and human, tell us much about how people residing in Penang cannot help but stay forever cognisant of the past. To them, these tracings of the flow of time remain evident in their everyday surroundings. These are clad in the biological diversity they gave birth to; this diversity in turn sustains the cultural miscellany settled on the plains of the island.

The visible time spans etched into the landscape and the cityscape are an asset most appreciated when threatened.

As answer to the question on Penang’s exceptionalism therefore—I would say it still exists. It exists in the landscape and the cityscape, and these sustain and have given birth to the vital element determining the exceptionalism of the place, namely the deep sense of spiritual and historical ownership felt for the place by its inhabitants, and the inclusivity their society has always exhibited.

Let me end by inserting the concept of “Dragon veins” into our discussion. The landscape and cityscape of any place manifest the flow of time. They do so in abundance in Penang, and on a scale perceivable for most people. Having had that for so long, its people consider the place exceptional. And therefore it remains exceptional, and they will struggle to keep it that way.

Wherever humanity and nature can converse, that place is exceptional. And that conversation must not be allowed to stop.

*\*Note: “Dragon veins” is a Chinese poetic reminder of the flows of time and energy captured in the physical world, evident here and now to those sensitive enough to see them. Understood as an aesthetic concept, the cutting of these veins destroys the history, the beauty and the exceptionalism of a place.*

**BACK IN 2022**, we and a team from Gerila Sejarah Pulau Pinang (GSPP) decided to further explore the history of the Malay community in Penang by directing our attention to several historical areas on the mainland, or what we call “*seberang*”. The area around Sungai Dua has been known for important historical anecdotes concerning the 1700s to the 1800s; it was there that Malays, led by Tunku Sulaiman, the son of Sultan Abdullah Mukarram Shah of Kedah (r.1778-1797) coordinated many interactions among various Malay sultanates, Siam and the British.

**A FORMER  
SOCIO-  
POLITICAL  
CENTRE**

# BUKIT KOTA & BUKIT INDERA MUDA

**BY NABIL  
NADRI  
AND  
MUHAMMAD  
AMIRUL NAIM**

The Tunku’s settlement at Kampung Kota (Permatang Pauh) was where his administration as the Raja of Perai, Karangan and Kulim—appointed during the rule of Sultan Dhiauddin Mukarram Shah II of Kedah (r.1797-1803)—was based. Remnants such as the “*tanah raja*” royal grant land at Kampung Seberang Terus inherited by his relatives, the royal “Nisan Aceh” gravestones from that period, and the graves of Tunku Sulaiman himself and his relatives at Kampung Kota, are still there. However, not many realise the significance of the surrounding hills. These overlooked and guarded what was then the southernmost outpost of the Kedah Sultanate.

Most important of these were Bukit Kota (or Bukit Jelutong) and Bukit Indera Muda, situated several hundred metres south of the settlement. These acted as geographical barriers and watch posts, especially against the Siamese upriver and the British troops downriver. They provided the area with general security, connecting it along traditional riverine routes with Teluk

Ayer Tawar, another site of power during the Kedah-Siam War (1821-1842); it is situated at the estuary of Sungai Perai, with the Sungai Muda political nexus branching through Sungai Kerih at Kampung Lembah Raja.

Our initial exploration at Bukit Guar Ipoh found remnants of granite mining from the colonial period. Located at the hill section toward the west, the find may be linked to the mineral origin for the Nisan Aceh gravestones we found earlier.

We were even more delighted to discover more historical artifacts scattered across Bukit Kota and Bukit Indera Muda. Local villagers informed us that Bukit Kota still has remnants of Tunku Sulaiman’s fortification, albeit that they have largely weathered away—the materials used for the palisade were wood and bamboo.

## SEATS OF POWER

Political centres of early kingdoms in the region were often located on hills overlooking estuaries. This was both a strategic

and symbolic choice—consider Palembang, Singapore and Melaka. The combination of maritime access and elevation projected both worldly authority and a sense of cosmic alignment.

As explained by John N. Miksic in his doctoral dissertation, *Archaeology, Trade, and Society in Northeast Sumatra* (1979), similar patterns are found across the region, including in Kedah and West Sumatra. This suggests a shared cultural logic where high ground easily served as a marker of legitimacy and stability for a seafaring civilisation.

This was not a rigid model, and people in the archipelago adapted this principle to local geography and changing political needs. But while places like Bukit Kota and Bukit Indera Muda may differ in landscape from Melaka or Palembang, they carried the same symbolic reasoning. Elevated ground anchored political presence and cultural identity. This practice may reflect Malayo-Polynesian notions of associating hills with ancestral authority and continuity.





1



**MUHAMMAD AMIRUL NAIM** holds a Bachelor's degree in Human Sciences from the International Islamic University of Malaysia (IIUM). His areas of interest encompass social history, intellectual history and political thought.



**NABIL NADRI** is a researcher at IIUM's Dept. of History & Civilisation, and PhD candidate at USM's Centre for Global Archaeological Research. Passionate about local history, classical literature, and archaeology.



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## CAPTIONS

1. Map showing the location and surroundings of the “Kota” of Tunku Sulaiman (c.1839).

2. The expedition in 2022 surveying Bukit Guar Ipoh, and the panorama facing Kampung Kota and parts of Bukit Indera Muda in the background. Source: Nabil Nadri

3. A gravestone of an unknown male at Kampung Terus—a part of the Kampung Kota network, the gravestone is of “Nisan Aceh” style from the 18th century. This indicates that the deceased was of noble birth.

4. The royal cemetery with the graves of Tunku Sulaiman and his family members on the bank of Sungai Perai. Source: Nabil Nadri

5. Muslim graves (c.1800s) discovered at Bukit Indera Muda. Source: GSPP

6. A little mound covered by granite rocks at Bukit Indera Muda, considered by locals to be an ancient grave.

7. The seal which reads “Seri Pekerma Wangsa Ibnu Raja Lela Muda sanah 1291 (hijri, 1874AD). Source: suratlight.blogspot.com

8. Muslim graves inside the family cemetery of Datuk Jenaton at Bukit Minden, notably similar to those discovered at Kampung Kota and Bukit Indera Muda. Source: Nabil Nadri

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## INDERA MUDA:

## TRACES OF AN OLDER POLITICAL ORDER

Until 2024, we explored Bukit Indera Muda in several surveys with the cooperation of Kampung Kepala Bukit villagers. We had discovered remains of the old settlement which, based on old Muslim graves from the early to the mid-1800s, confirmed the connection with Kampung Kota. In 1869, Siam granted British Penang the remaining Kedahan territories on the mainland supposedly owned by Tunku Sulaiman, which lay to the east of Kampung Kota and its two initial boundary markers, Bukit Kota and Bukit Indera Muda.

Since then, the role of Kampung Kota and its surroundings as an autonomous fief of a Kedahan prince—which had always appeared as “Tunku Sulaiman’s Residence” in British colonial maps from as early as 1820s—gradually dwindled to vanish totally from cartography records by the 1890s.

## THE SUMATRAN CONNECTION

More interestingly, the existence of an early settlement at Bukit Indera Muda may actually have predated Tunku Sulaiman. The hill named “Indera Muda” is believed to be related to another leadership present in the area led by a nobility vested by the Kedah Sultanate before the 1800s with administering or developing authority. The name Datuk Indera Muda was a well-known name

adopted by a class of Batu Baran nobility from northern Sumatra (Melayu Batu Bara). Many of them such as Datuk Jenaton (or Jannatun) were responsible for early settlements in Penang.

He settled in the Batu Uban area around 1749, and was known as Datuk Indera Muda of Batu Bara before abdicating in favour of his son, Datuk Indera Muda Datuk Pambasar Baramban, whose position was later inherited by his grandson, Datuk Indera Muda Hussin. Upon visiting the court of Kedah after defending Penang against marauding pirates, Datuk Jenaton was granted 40.47ha of land stretching from Batu Uban to Gelugor by Sultan Muhammad Jiwa (r.1710–1778). Similar grants were vested at around the same period by Kedah to Nakhoda Nan Intan and Nakhoda Kechil who were based around Tanjung Penaga (George Town and its vicinity). They were of Minangkabau descent, and from Batu Bara.

A letter sent to Francis Light by a certain Datuk Raja Lela Muda, a Kedahan noble administering the lower reaches of Sungai Perai, substantiates the Batu Baran connection. According to an official seal found in another corresponding letter, he was indeed the father of a certain Seri Pekerma Wangsa Datuk Kaya Batuah of Batu Bara. There is therefore a possible relation to the Datuk Jenaton family or the Sumatran

political network in Penang and Seberang Perai. The letter, although undated, may be assigned to the period Light was in charge in Penang, i.e. between 1786 and his death in 1797.

## TRADE, PEPPER AND POLITICS

These Batu Barans were known as merchants active especially in handling pepper—it is not by chance that pepper plantations were recorded around hilly lands around Bukit Indera Muda (stretching all the way to the Bukit Mertajam area). As trajectories inspired by or even as direct successors to these pioneer works, the enterprise continued under the British and was further developed by Chinese workers in the 19th century.

## A SOCIO-POLITICAL CONTINUUM

If we recall the role of Tunku Sulaiman in Kampung Kota (and Bukit Kota) and the network of groups of diverse origins (but largely Batu Baran Sumatrans from Batu Uban, Gelugor and Jelutong), and connect these to the attempt by Sultan Ahmad Tajuddin (r.1803–1821, 1842–1845) to regain Perai in 1791 and Tunku Muhammad Saad’s (Tunku Sulaiman’s son in law and successor) resistance in 1838 against Anglo-Siamese incursions, we can catch a glimpse of some socio-political continuum between inhabitants on the mainland and the island.

# PENANG NATIONAL PARK: A TREASURE TROVE OF BIODIVERSITY THAT CAN ONLY GET BETTER

BY ALLEN TAN



1

**PENANG ISLAND RESIDENTS** are spoilt for choice when it comes to access to pristine and unspoiled natural green spaces—whether it’s a quick brisk walk around the Penang Botanic Gardens or a challenging hike up to the summit of Penang Hill. We also have access to protected areas such as Teluk Bahang on the northwest coast of the island, home to the Penang National Park (PNP) which falls under the jurisdiction and management of the Department of Wildlife and National Parks Malaysia (Perhilitan).

An important and integral part of the UNESCO Penang Hill Biosphere Reserve (PHBR) designated in 2021, PNP was established in 2003 and measures just 25.63km<sup>2</sup> (1,213ha) in size, making it the smallest national park in Malaysia established under the National Park Act of 1980. It is a treasure trove of bio-



**ALLEN TAN** is a lawyer by training and an environmentalist by accident. He was the former Managing Director of The Habitat Penang Hill and, subsequently, The Habitat Group.

diversity, comprising of hills and lowland dipterocarp and mangrove forests, sandy beaches and marine ecosystems. It is home to 417 species of flora and 143 species of fauna, and is an important component of the network of green spaces, or urban biodiversity, which make Penang one of the most liveable places in the region and the world.

The beaches in PNP include Monkey Beach, Pantai Kerachut, Teluk Kampi and Pantai Emas, just to name a few. There is a Turtle Conservation and Information Centre operated by the Department of Fisheries Malaysia at Pantai Kerachut where you can learn about the Green Sea Turtle (*Chelonia mydas*) and the Olive Ridley Turtle (*Lepidochelys olivacea*) which are listed by the International Union for the Conservation of Nature (IUCN) as “Endangered” and “Vulnerable”, respectively. Pantai Kerachut is also home to a meromictic lake, a seasonal lake fed by two distinct layers of water, one salty and the other fresh, that do not mix—the only one in Malaysia and one of only three such lakes in Asia.

The beauty of it all is how easily accessible PNP is, being just a short 35- to 45-minute drive from the heart of the George Town World Heritage Site, depending on traffic. A leisurely drive along the scenic coastal road linking Tanjung Bungah to Batu Feringghi and from there on to Teluk Bahang is an experience in itself. Breathtaking views greet you at literally almost every turn. Perhaps a stop at the K(an)opi Coffee at the Tropical Spice Garden along the way may be on the cards as well.

As you enter the now not-so-sleepy fishing village of Teluk Bahang, you are greeted by the giant Nephentes or pitcher plant sculpture at the roundabout which points the way towards the entrance to PNP. Park your car at one of the outdoor car parks and make your way towards the Perhilitan Park Office to register before proceeding on your hike. Be sure to arrange for a boat taxi to come pick you up from your desired destination at your preferred and designated time later in the day.

My personal favourites include a hike to Monkey Beach for some sundowners followed by a short boat ride back to the park entrance at dusk. Also enjoyable is a hike to either Pantai Kerachut or Teluk Kampi to simply enjoy the white sandy beaches and (relatively) clean waters there. For the more resilient, a hike to the Muka Head Lighthouse from Monkey Beach is a must.

If you have time or the interest, visit the Centre for Marine and Coastal Studies (CEMACS) run by Universiti Sains Malaysia (USM). There, you will learn about some of the cutting-edge work they are doing to increase food security for Malaysians and address some of the effects of climate change on the marine environment.



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### MAKING PNP MORE ATTRACTIVE

While already charming and worthy of a visit in many ways, as the saying goes, there is always room for improvement. In this regard, Perhilitan recently raised the admission fees for entry into PNP from RM5 to RM10 per Malaysian adult. Hopefully this will provide the park management with the resources required to invest in better facilities to improve visitor experience. Basic amenities like public toilets and bathrooms equipped with hot showers would already help improve things tremendously.

Strategic partnerships in the form of public-private partnerships with like-minded and responsible private sector operators to provide nature-based activities (for example, bird watching, nature guided walks and tours, adventure activities—preferably of the non-motorised variety—and heritage walks focusing on the history and culture of the park) would go a long way to introduce quality, world-class programmes and experiences for visitors to the park. This would also have the added benefit of generating sustainable financing for the park to further improve its management and operations.

Strategic collaboration with academia and like-minded organisations with an interest in scientific research and environmental conservations would also help raise the Park's profile. In this context, leveraging on the fact that PNP is an important and integral part of the recently designated PHBR and building bridges to connect with potential local and international collaborators and partners (including funding partners) would help PNP reach its full potential as a rich source of natural biological heritage—not just for Penang, but also for Malaysia.

Scientific research within the PHBR starting in the highlands of Penang Hill and ending at the coastal and marine ecosystems of PNP would offer scientists



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a unique opportunity to study, among other things, the effects of climate change on the flora and fauna at different elevations. The establishment of permanent plots can be explored with partners such as Forest Research Institute Malaysia (FRIM), the Forestry Department of Peninsular Malaysia (FDPM), the South East Asian Rainforest Research Partnership (SEARRP) and others as a means to facilitate long-term climate research within the PHBR.

Other initiatives to explore include looking to register PNP and perhaps the greater PHBR area as part of a voluntary carbon credit and offset regime, like the Darulaman Sanctuary (DAS) in Langkawi—the Malaysian Forest Fund (MFF) recently worked with ByteDance, the parent company of TikTok, to fund forest conservation efforts at DAS to decarbonise the latter's data centre operations in the country.

Protecting and supporting PNP and the surrounding PHBR requires the active involvement of the greater community. This support can manifest in responsible visitation, contributions to upkeep and thoughtful exploration of the diverse ecosystems.

### CAPTIONS

1. Dusky Langurs at Penang National Park. Source: Roughdiamond21 ([https://commons.wikimedia.org/wiki/File:Dusky\\_Langurs\\_at\\_Penang\\_National\\_Park.jpg](https://commons.wikimedia.org/wiki/File:Dusky_Langurs_at_Penang_National_Park.jpg)), <https://creativecommons.org/licenses/by-sa/4.0/legalcode>
2. The pristine Monkey Beach in the north-western corner of the island. Source: Asiadetailfeed (<https://commons.wikimedia.org/wiki/File:Monkeybeach08.jpg>), „Monkeybeach08“, <https://creativecommons.org/licenses/by-sa/3.0/legalcode>
3. Wild mushroom found in PNP. Source: Teh Eng Keong ([https://commons.wikimedia.org/wiki/File:PenangNationalPark\\_2.jpg](https://commons.wikimedia.org/wiki/File:PenangNationalPark_2.jpg)), <https://creativecommons.org/licenses/by-sa/4.0/legalcode>
4. Jungle view at Penang National Park. Source: Teh Eng Keong ([https://commons.wikimedia.org/wiki/File:Penang\\_National\\_Park.jpg](https://commons.wikimedia.org/wiki/File:Penang_National_Park.jpg)), <https://creativecommons.org/licenses/by-sa/4.0/legalcode>



4

BY  
EUGENE  
QUAH  
TER-NENG

# BUKIT MERTA JAM

THE  
MOUNT  
THAT  
DECIDES  
BORDERS

## CAPTIONS

1. Bukit Mertajam as seen from “5th Mile Stone, Penang Hill”, in 1846. Source: “A Glimpse of the Plain from the 5th Mile Stone, Penang Hill”, Charles Dyce, 1846 National University of Singapore Museum

2. “View from the Convalescent Bungalow...” by Captain Robert Smith. Across the Penang Strait is Bukit Mertajam and beyond it, the Kingdom of Kedah, then a tributary state under Siamese suzerainty. Source: From 1821 aquatint by William Daniel. Courtesy of the SP Collection



2

“KEEP YOUR PISTOL cocked and ready, *tuau*, when you see me uncover my *kris*, as we pass through the *blukar* (scrub), for many a man have I known to be set upon here...” warned Oamut [Ahmad] to James Turnbull Thomson as they made their way back to British territory.

The travel companions were a retired Malay soldier who served in the Ceylon<sup>[1]</sup> Rifle Corp and a young land surveyor employed by his relative, David Wardlaw Brown of Gelugor, to survey the latter’s vast estates. Thomson—just shy of his 18th birthday—challenged himself to map the sparsely populated Province Wellesley, now known as Seberang Perai. Oamut—a local from Bukit Tengah—was his guide. They had briefly stopped at a place called Kota (Malay for fort) located within Siamese territory. “We passed over the boundary... all safe; and, after a breakfast of rice, curried fowl and plantain [banana], we mounted the elephant and set out on our journey to Bukit Moratajam<sup>[2]</sup> [from Permatang Pasir],” wrote Thomson in his memoir.

“We soon rose over the plain, and found ourselves on top of a hill called Bukit Indramuda,” according to Thomson, “covered with clove trees and plantain gardens, the property of some enterprising Chinese settlers. Here we could scan the whole province, from the Krian [River] to the Muda [River].” Thomson asked Oamut if he knew who owned the various plantations and was told that they all belonged to the “East India Company’s Chief Official”—a Scotsman named James Low. Captain Low (later Colonel Low) had been put in charge in 1826 as Superintendent of Lands of the Province Wellesley.<sup>[3]</sup>

## FOOT OF THE BIG HILL

The pair continued their journey, passing through the swamps of Kubang Semang (Hollow of the Semang) towards the great hill in the distance. The Semang, an indigenous Orang Asli group of hunter-gatherers, were early inhabitants around Bukit Mertajam. (See *Penang Monthly* June 2024 issue)

Along the way, Thomson dozed off on the elephant. However, his Malay friend later nudged him awake, as “the pepper gardens of Bukit Moratajam were now in view”. Oamut had “many acquaintances amongst the Chinese here”. They “stopped at head man’s house at mid-day”, where they were “hospitably regaled with rice, salt fish, tea and sweetmeats”, wrote Thomson. It seems that there was an emerging community of Chinese residents at the base of the foothill. In Penang Hokkien dialect, the present town is known by its evocative name: *Tōa-soa’-kha* (大山脚)—literally “Foot of the big hill”.

The founding date of the current Bukit Mertajam town remains inconclusive. An agricultural treatise published by Low in 1836—though the information appears to be from 1834—makes no mention of a settlement at Bukit Mertajam apart from the remark, “... fruits brought from the woods of Moratajam, Province Wellesley include the duku, langsung, salak and papaya”. Thus, the founding of the present town could perhaps be narrowed down to between Low’s account (1834) and Thomson’s visit (1839).

## HILL OF THE MERTAJAM TREE

Bukit Mertajam is a granitic mountain rising from a flat coastal plain to a height of 545m above sea level and serves as the

source of the Juru River. Like many other hills and places in Malaysia, such as Bukit Jelutong, Bukit Seraya and Bukit Tambun, the peak was probably named after a particular kind of tree, which probably grew in abundance on its slopes. In this case, the Mertajam tree (*Lepisanthes rubiginosa*).

The Mertajam tree, native to Penang, typically grows only 2-3m tall, and produces shiny, red elliptical fruits—reputedly “unpleasantly flavoured”. According to Low, the tree’s medicinal properties were well-known to locals: “root and leaves are mashed as a cooling application, in cases of brain-fevers. The infusion of this root is drunk, in cases requiring astringent medicine.”

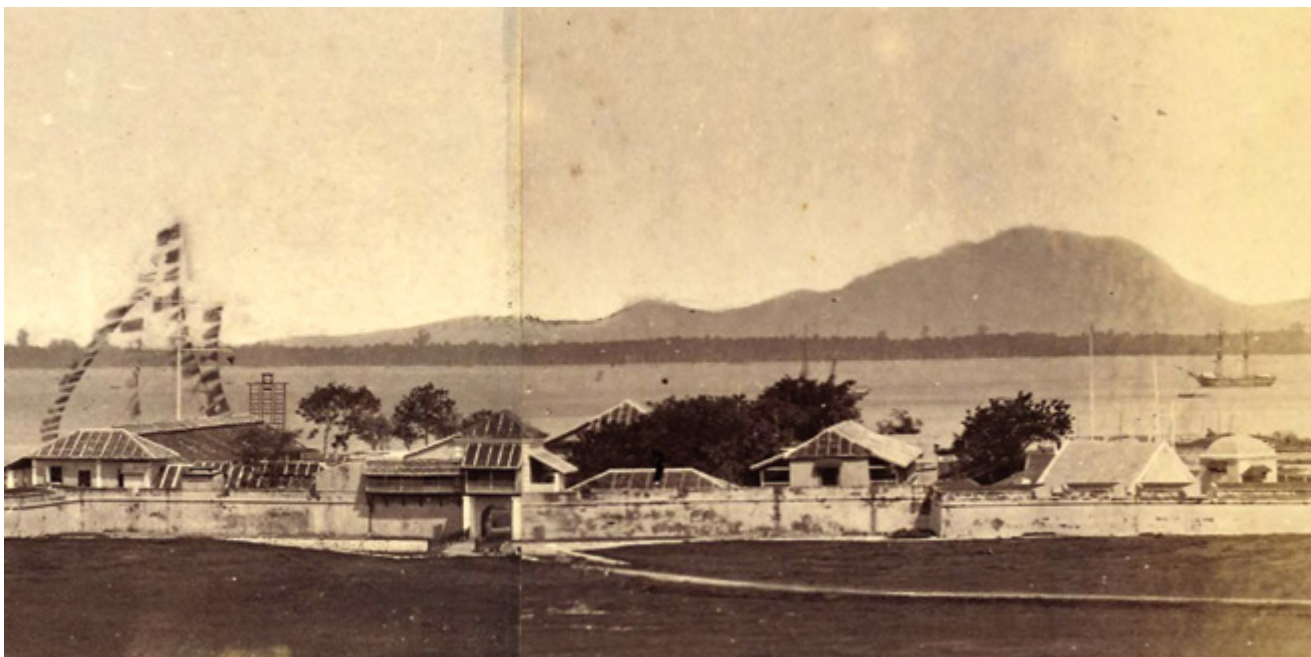
## BOUNDARY MOUNTAIN

After leaving Bukit Mertajam, Thomson and Oamut returned to Permatang Pasir, dismounted their elephant and walked to Bagan Serai. Before parting, Thomson asked, “How long has Province Wellesley belonged to the British?”

“Upwards of a quarter of a century,” Oamut replied incorrectly—the territory had been acquired nearly four decades earlier. It was on 6 June 1800 that George Leith, Lieutenant Governor of Penang, signed a treaty with the Sultan of Kedah, which superseded the 1791 treaty.

When Thomson inquired about local administration, Oamut explained that the magistrate, tax collector and superintendent were all the same person: the “East India Company’s Official.”

“Well, I see, Oamut, that [this official]... would require to be a demigod.” Thomson’s map of Penang Island and Province Wellesley was completed in November 1839.



3

After Penang, Thomson would go on to work in Singapore as the Government Surveyor. He would later achieve prominence for designing and constructing the Horsburgh Lighthouse on Pedra Branca (Batu Putih).

#### INTERNATIONAL BORDER

In 1821, in a dark episode of Kedah's history known as the *Perang Musuh Bisik* (The War of the Whispering Enemy), the Kingdom of Siam suddenly invaded Kedah, then a tributary state under its suzerainty. Bukit Mertajam was then part of Kedah. A "fleet carrying an army of 7,000 men under the Raja [Governor] of Ligor—*Chao Phraya Nakhon Si Thammarat*—sailed into the Kedah river so suddenly that Malay chiefs did not have the time to assemble their followers." Thousands of Kedah Malays fled the massacre by the Siamese forces by crossing the Muda River into Province Wellesley.

In 1826, the EIC and Siam signed a treaty, mutually recognising Kedah, Kelantan, Perlis and Terengganu as Siamese territories, while Penang, Melaka and Singapore remained British. Article 3 was clarified in 1831 through a boundary treaty with Ligor, which expanded Province Wellesley as follows:

"... on the south bank of the [Sungai Kuala Muda], by a road leading to the River Prye... then descending the middle... to the mouth of the River [Sungai Sintok], then ascending... in the straight direction eastward, and up to the Hill Bukit [Mertajam]..."

Thus, Bukit Mertajam was cut in half by an international border. "The western

slope of this hill lies within the English territory—the eastern appertains to the Siamese," explained Colonel Low.

#### FINAL EXPANSION

In 1867, the Straits Settlements transferred from the India Office to the British Colonial Office, following the EIC's dissolution in 1858. On 6 May 1869, the colonial government signed a new treaty with Siam addressing "questions relative to the British engagements with Quedah<sup>[4]</sup>", using Bukit Mertajam as a prominent landmark to expand Province Wellesley's eastern boundary.

"His Highness the [Yang di-Pertuan of Kedah] agrees that the Dominion of Her Britannic Majesty [Queen Victoria]... shall comprise... on the west by the Sea, on the north by... the [River Muda], on the south by... the [River Kerian] and on the east by a line south from a spot... opposite the existing frontier pillar at [Sematol<sup>[5]</sup>]... to a point on the extreme eastern end of the [Mertajam] range of Hills..."

After 1909, the international border east of Bukit Mertajam disappeared when Kedah, as a direct result of the Bangkok Treaty signed two years earlier, became one of the Unfederated Malay States—a British protectorate. However, this border would briefly return during World War II when Kedah again fell under Siamese domination. During this period, Bukit Mertajam belonged to the Empire of Japan, with its eastern slopes bordering Saiburi (Siam's name for Kedah).

#### SUMMIT

It is unclear when the mountain was first scaled. All early written records are British; none mentions the mountain before the 1830s. The earliest views of Bukit Mertajam—as seen from the island—were painted around 1818 by the company engineer and architect of St. George's Church, Captain Robert Smith. A talented amateur artist, he produced a masterful and acclaimed set of oil-paintings of early 19th century Penang. Interestingly, James Turnbull Thomson had been inspired to come to the Straits Settlements as a schoolboy when he saw one of Captain Smith's paintings of Penang. The latter's special 360° panoramic painting of the Penang Strait simply notes Bukit Mertajam as the "Prye Mountain"—suggesting that territory was relatively unknown.

What is clear is that, by 1862, there was a bungalow reported at the summit, and by implication, a path up the hill:

"... a clearing was distinguishable on the very summit of Martajam Hill, where Mr. Thomson<sup>[6]</sup> of Alma has recently erected a bungalow which is likely to become the Province Sanitarium, as it is said to be even cooler than the Great Hill [on Penang Island]..."

#### SACRED SLOPES

On the southwestern foothills of Bukit Mertajam, at a place known as CheroK To' Kun<sup>[7]</sup>, stands the Minor Basilica of St. Anne. In 1846, Father Adolphe-Louis Couellan of the Missions Etrangères de Paris was assigned to Batu Kawan, from





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3. View of Bukit Mertajam across the Penang Strait, with Fort Cornwallis in the foreground. This photo was taken from the tower of Koh Seang Tat's mansion (later called Edinburgh House), by Kristen Feilberg in 1869. Source: "Souvenir of Penang Or. 27.402, 1869", University of Leiden

4. Simulated coastline around the 5th to 6th century, showing that places such as Cheroke To' Kun at the western foothills of Bukit Mertajam was near the coast; the southernmost extent of Kedah Tua's network of maritime trading location.

5. Fruits of the Mertajam tree, found throughout Southeast Asia. Source: "Buah mertajam di Aceh", Photo by Si Gam. Creative Commons.

6. This map in 1820 by the Penang Presidency shows Province Wellesley—overlaid over a modern satellite image—as a thin sliver of land measuring "inland from the sea-side sixty orlong [relung]", stopping short of the westernmost part of Bukit Mertajam. The Penang mainland would be expanded twice before achieving its present size. Source: John Henry Moor (1837), "Notices of the Indian Archipelago etc. etc." Public Domain.

7. "Map of Prince of Wales' Island or Pulo Penang and province Wellesley (1853)" by Michel Jules Moniot, showing the international British-Siam border running along its summit. The mountain was an important natural landmark brought into use in various treaties. Source: National Archives of Singapore



6

where he ministered to the Catholics residing in Bukit Mertajam. The late James Frederick Augustine—the "Grand Old Man" of the Eurasian community, and an expert on Kedah and Catholic history—uncovered evidence that by 1856, a place of worship had been erected on a hillock behind today's Old Church (built in 1888). A letter dated April 2 of that year, written by Fr. Couellan, reported that "... St. Anne's church of Bukit Taijam [Bukit Mertajam] is making great progress," though the French padre described the building as "a very destitute little chapel".

To the left of the Old Church, just beyond the main basilica building completed in 2002, there is a large boulder with ancient inscriptions. A curious news report in 1915 described a "heathen festival" held every 10 years during the summer solstice that involved the rock:

"... at the foot... of Bukit Mertajam... The bull for the sacrifice was gaily decorated... led by the dancing crowd to the ancient inscribed rock, killed and eaten. The head, fore legs and skin were then trailed round the lower slopes of the hill and as the sun rose higher... the great crowd began to mount to the summit. There with sticks and stones the remains were stretched out... and an old *pawang*<sup>[8]</sup> chanted his *mantra-mantra*."

This inscribed stone, now declared a national heritage site, has been ravaged by the passage of time and vandalism. On 26 December 1845, an apparently well-educated vandal left his mark in Latin:

I. Low d-St Ste 1845

[James Low, day of Saint Stephen, 1845]<sup>[9]</sup>



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James Low, like many East India Company employees of his time, fancied himself an antiquarian, collecting exotic treasures from all over the empire. Despite this lowly act of vanity vandalism, the Colonel partially redeemed himself by making a high-quality imprint of the inscriptions, arranging for their translation, and subsequently publishing his findings.

The inscriptions turned out to be from Buddhist scripture dating from the 5th century written in Pāli script, showing that the area had long been inhabited and was a sacred site. Another inscription found there dates to the 10th century. Nasha Rodziadi Khaw, a well-known archaeologist who hails from Bukit Mertajam, offers the following interpretation in his latest book *Ancient Kedah—History, Archaeology & New Narratives*:

*prathme vayasī nāvike*  
[the first state of a seafarer's life]



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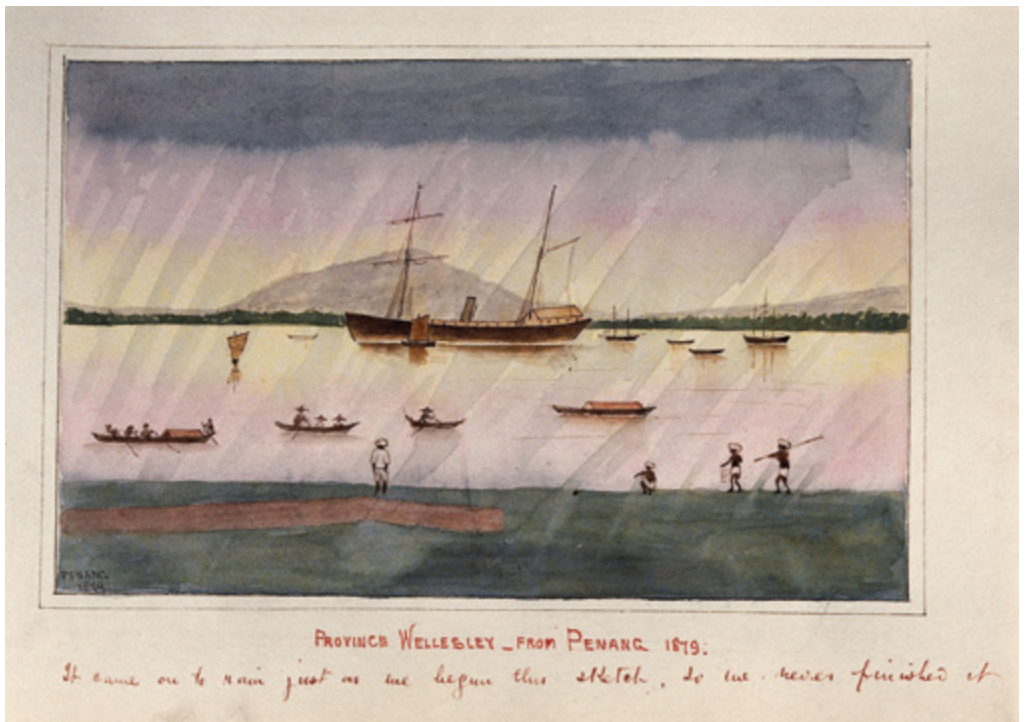


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8. James Turnbull Thomson's map of Penang (Prince of Wales Island) and Province Wellesley. After a long stint in Penang and Singapore, Turnbull emigrated to New Zealand. An original copy of the map was found at the University of Otago's collection. Sources: Main: National Archives of Singapore (the map is a reproduction), Inset: University of Otago (original)

9. Contemporary view of Bukit Mertajam from Penang Hill, June 2020. Source: Eugene Quah Ter-Neng

10. "Malaya: a ship and many small boats off the coast of Penang Island" with Bukit Mertajam in the distance. An incomplete watercolour painting by John Edmund Taylor, from 1879. Source: Wellcome Collection.



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11. Bukit Mertajam, the source of the Juru River as seen from the summit of Bukit Juru. In the 5th century, the lands between Bukit Juru and the western foothills of Bukit Mertajam were submerged under a shallow sea. Source: Eugene Quah Ter-Neng

So, why did this ancient mariner venture so far inland? Geologists and archaeologists explain that before the dramatic sea level drop in the Strait of Malacca around the 14th century, Cherok To' Kun sat at the coast by a large bay, with Bukit Mertajam as the backdrop. Most of Seberang Perai was then underwater, while Bukit Juru and Batu Kawan were merely islands. These south-western foothills of Bukit Mertajam, then near the coast, marked the southernmost extent of Kedah Tua, which was “a network... of coastal and riverine settlements connected through trade”. The many places called *permatang* (sand ridges in Malay) on the mainland are remnants of this ancient coastline.

#### CODA

In the 20th century, Bukit Mertajam's namesake settlement<sup>[10]</sup> at the foothills grew into a bustling market and railway town, drawing traders, civil servants and various religious and ethnic communities into its orbit. This great hill—its presence defining the landscape for miles around—has witnessed the province's evolution from a remote frontier outpost to a microcosm of Malaysia's broader journey: from agrarian to industrial, from colonial administration to self-governance (See *Penang Monthly* June and July 2015 issues to read about the social-political development of the town from the mid-19th century onwards).

#### FOOTNOTES

[1] Modern-day Sri Lanka.

[2] The spelling of *mertajam* was not standardised—Moratajam, Martajam, Martajum, etc.

[3] James Low had been in Penang since 1819. Low's Pass—the initial road to Balik Pulau—was named after him.

[4] Quedah is the archaic Portuguese spelling of Kedah.

[5] Monoit's 1853 shows Sematol to be within the vicinity of the present Kampung Bukit Sementol.

[6] It is unclear whether it was DC Thomson or JC Thomson's bungalow.

[7] Incidentally, the birthplace of the 10th Prime Minister of Malaysia.

[8] In the Malay Archipelago, a *pawang* is a shaman associated with mountains and the sky.

[9] Latin—Iacobus Low dies-Sanctus Stephanus 1845. Credit to Alexis Kerr for figuring it out.

[10] The village of Bukit Mertajam was

burned down completely multiple times during the 19th century; the last occurrence was on 15 March 1882.

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**EUGENE QUAH** is an independent researcher and writer who is working on a book tentatively called “Illustrated Guide to the North Coast of Penang”. He rediscovered the joys of writing after moving back to Penang from abroad.

# THE TRANS NINE PEAKS

## WALKING THROUGH PENANG'S LESSER HILL RANGE

BY REXY PRAKASH CHACKO

**MENTION HILLS ON** Penang Island, and Penang Hill and its greater range comes to mind; this starts at the southwest tip, winds its way along the middle, and broadens out to a large hilly area as it approaches the north and north-west side of the Island. This main range is visible from miles away, and defines the skyline of the island. However, a few other secondary hill ranges and isolated peaks do exist on the island, the most prominent of which is situated in the backdrop of Gelugor—often referred to as the Bukit Gambir hills. Visible from the first Penang Bridge, most people do not realise that this is a separate range; when viewed from that direction, it melds into the higher Penang Hill range behind it.

This lesser range starts near the Penang Golf Club in Bukit Jambul and runs all the way to the sprawling Batu Lanchang Cemetery, stretching approximately 8km, and forming a natural geographic boundary between Gelugor and the narrow Paya Terubong Valley. Despite looking lush and green from afar, not all of it is forest; large areas of the hill range are privately owned fruit orchards. Vestiges of forest are restricted to narrow slithers along the ridge top and steep sections along the range. In fact, this agricultural legacy goes back a long time—maps from the 1850s already show large “spice plantations” occupying the slopes of the Bukit Gambir hills. One of these “spice plantations” belonged to James Richardson Logan, a 19th century Penang lawyer and polymath, whose monument stands in front of our Supreme Court. Logan is credited for popularising the term “Indonesia” to refer to the Malay Archipelago well before our neighbouring nation adopted the name.

A plethora of trails run through the hill range, with popular ones being Bukit Jambul and Bukit Kukus. The “Trans Nine Peaks” walk became popular in 2018 when a few ambitious hikers connected the few separate trails along the range into a single, continuous seven-hour walk, starting at BL Garden in Solok Thean Teik (near Batu Lanchang Cemetery) and ending at Bukit Jambul. The name references the nine peaks one crosses during this hike: Bukit Kecil, Bukit Batu Lanchang, Bukit Hijau, Bukit Romania, Bukit Relau, Bukit Botak, Bukit Paduka, Bukit Kukus and Bukit Jambul.

As word spread about this trail, it became a hit among the local hiking community. However, its popularity was short lived; by 2021, sections along the walk had become inaccessible due to land works for agriculture. In 2022, the northern section, near BL Garden, was cut off due to works on the Ayer Itam-Tun Dr. Lim Chong Eu Expressway Bypass. As it stands in 2025, this walk is no longer possible to attempt in its entirety. Only sections can be accessed.

Having completed this trail in December 2020, this account by me serves not as a guide—as is typical of my other articles in the “Peaks and Parks” column—but as a nostalgic recollection and an accomplishment.

We started along a cement path just off BL Garden. Very quickly, it led us onto a jungle trail going upward. Clambering up the steep slope, a gleaming red signboard informed us that we were on the “Trans Nine Peaks Trail”, with the first peak, Bukit Kecil, just a few steps ahead. The term “Trans” within the hiking community is used to denote a hike which traverses multiple peaks, or one that passes along a long ridge.





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**CAPTIONS**

1. Eight of the peaks along the Trans Nine Peaks hike. The 9th peak, Bukit Jambul, is not visible from this angle.
2. Looking towards the hills on the other side of the Paya Terubong valley.
3. Pale Reed Orchid (*Bromheadia finlaysoniana*).
4. The rock formations which seemed to defy gravity.
5. The Tai Kar Luck rest spot.
6. Walking through farms in the Sungai Jelutong valley.
7. An ant mount along the way.
8. A large Ficus tree on Bukit Kecil.
9. The breathtaking view of the Paya Terubong valley framed by the towering Penang Hill range, seen from Bukit Hijau.



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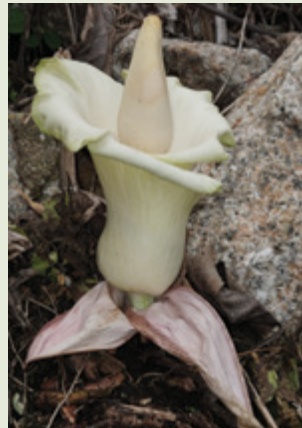
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10. Geese spotted in a farm along the trail.

11. Looking towards the first Penang Bridge from the summit ridge of Bukit Relau.

12. The flower of the Tacca Bat Lily (*Tacca integrifolia*).

13. A red signboard on Bukit Kecil with the list of peaks along the Trans Nine Peaks hike.

14. The Voodoo Lily (*Amorphophallus prainii*), which grows in abundance on Bukit Kukus. They flower in the months of April to May each year.

15. Looking back at Bukit Relau from Bukit Botak.

16. The lush forest scene on the ridge towards Bukit Kukus.

17. The Trans Nine Peaks trail snapshot captured on Strava (smartphone hiking application).

18. The Trans Nine Peaks trail close-up snapshot captured on Strava (smartphone hiking application).



16

On Bukit Kecil, a large *Ficus* tree greeted us. The trail then led southward, and in just 10 minutes, we had reached the second high point, Bukit Batu Lanchang. Along the ridge, the rock formations were a fascinating sight—some seemed to defy gravity. It took another 15 minutes to arrive at Bukit Hijau, a popular hiker’s haunt. At this point, the hike felt deceptively easy, three of the nine peaks conquered in less than an hour. However, a glance at our GPS maps reminded us that much of the journey still lay ahead. We paused at Bukit Hijau to soak in the breathtaking view of the Paya Terubong Valley, framed by the towering Penang Hill range.

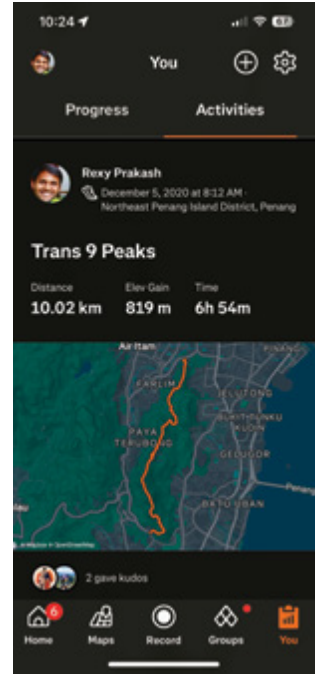
Rested and rejuvenated, we continued to Bukit Romania. The name might evoke curiosity about a connection to Eastern Europe, but in reality, this peak is named after the edible *Bouea oppositifolia* fruit, locally known as “Romania”. From Bukit Romania, the trail descended into a farm, where a few feisty geese greeted us with evident displeasure. At this point, we were surrounded by lush farms. This is the Sungai Jelutong valley, a small river valley enclosed within the Bukit Gambir hills. To our east, the densely wooded Bukit Delima rose, while in front of us, our next challenge, Bukit Relau, awaited. The trail wound its way up the valley to the source of Sungai Jelutong before taking a sharp right into the jungle. This section proved muddy and exhausting, but the installed ropes along the path were a lifesaver, helping us through. After 45 minutes, we arrived at the Tai Kar Luck rest spot.

After taking a good rest, our journey continued towards Bukit Relau. This section of the walk rose steeply, following the shoulder of the hill through dense jungle. As we approached the summit about an hour later, the forest became sparser, opening up towards the summit ridge, which had been

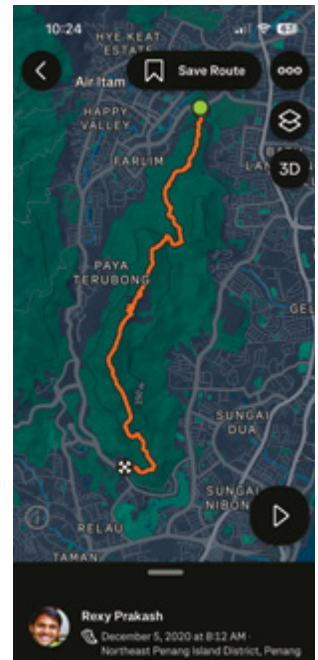
deforested more than a decade ago. There was not much of a view at the summit, and we began our steep and quick descent into a col, where a recently established durian orchard was located. From here, there was an uninterrupted view both towards the farms of the Penang Hill range on the west and Pulau Jerejak on the east. A wide cement road wound its way through much of the farm and we followed this path to the other side of the col to Bukit Botak. Bukit Botak, translated as “Bald Hill”, got this name due to extensive clearing that had left its summit barren.

This section tested our stamina; the scorching heat and steep cement road drained our energy. Fortunately, the trail beyond Bukit Botak was shaded by large trees, and we were back in the forest, with lianas clambering up into the canopy and a gentle breeze giving us much-needed respite. This section was mostly gentle as we trudged towards the 7th and 8th peaks—Bukit Paduka and Bukit Kukus. Bukit Kukus, towering at 426m above sea level, is the tallest peak in the Bukit Gambir range. By the time we reached Bukit Kukus, we had been hiking for close to six hours, with only one more peak until the completion of the “Trans Nine Peaks”. Bukit Kukus is also well known for another reason—the Voodoo Lily (*Amorphophallus prainii*), which grows in abundance there. Wearing but determined, we forged on to Bukit Jambul, first descending steeply from Bukit Kukus before ascending once more.

After seven hours and a distance of 10km, we triumphantly bagged the “Trans Nine Peaks”! This unforgettable hike offered a diverse tapestry of scenery—from lush forests and thriving orchards to open expanses, with great views in all directions. Though no longer fully accessible, the tales of those who had completed the trail endure as a cherished memory.



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**REXY PRAKASH CHACKO** is an electronic engineer by profession and a nature lover by passion. While he spends his weekdays earning a living at the Bayan Lepas Free Industrial Zone, his weekends are spent reflecting and recharging on the green hills of Penang.

# POSTCARDS AND PHOTOS OF PENANG'S HILLS

**TWO YEARS AFTER** setting foot on Penang Island in 1786, Francis Light set his sights on the hills of Penang—well, Penang Hill in particular, which consists of a range of hills with six peaks, today known as Tiger Hill, Flagstaff Hill, Western Hill, Laksamana Hill, Government Hill and Haliburton Hill.<sup>[1]</sup> It was said that Light constructed a horse track up to the Hill from the Botanic Gardens in 1788.

I'd like to think that when Francis Light circumnavigated the Island (which was likely, being an explorer and all), he would have caught a glimpse of what we see of the hills today when we drive towards it from the Penang Bridge. While not towering, the hills form a prominent landscape—it makes up the backbone of the Island—from Olivia Hill toward the north to Eagle Hill at the southern range, the dense forest on slopes, today forefronted by proliferating development, making a concrete jungle out of its plains.

Here, we look at what Penang was like during colonial times through old postcards and photos of, on and from the hills of Penang.



BY  
RACHEL YEOH





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1. View southeast over Paya Terubong valley. The summit in this photo is Bukit Kukus and the secondary peak next to it (on the right) is Bukit Paduka.

# IMAGES FROM MARCUS LANGDON COLLECTION

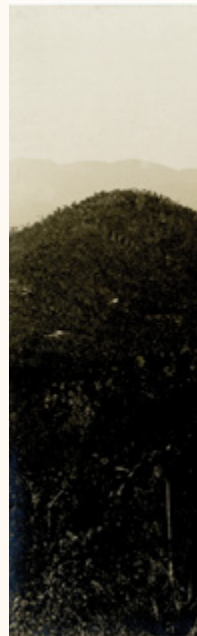
2. View to the hills from the harbour, circa 1905. George Town was then a bustling hub of trade and activity, and a key part of the commercial network among British colonies and also Southeast Asia.<sup>[2]</sup> The hills from this vantage is part of the southern range.
3. Miami Beach, circa 1930s. This stretch of beach was popular among tourists on the Batu Feringghi coastline. Behind the beach is Moonlight Bay, and the incline up the slope leads to what we know today as Freedom Hill.
4. Bel Retiro from Convalescent Bungalow, built for those who needed to recover from the hot and humid tropical climate. It looks over Bel Retiro, built for the use of the Governor of Penang in 1789.
5. View southwest towards Pulau Bedong, circa 1920s.
6. Flagstaff at Bel Retiro, circa 1905. Flagstaff Hill, the most developed peak on Penang Hill, is named after this flagstaff.



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- 7. Tanjung Bunga Hill, circa 1910s. The western side of the U-shaped Vale of Tempe (Lembah Permai) was known as Tanjung Bunga Hill in the late 19th until the early 20th century. It was once part of Rockhill Estate belonging to Cheah Choo Yew. It is now colloquially called Clara's Peak, although officially unnamed.
- 8. Penang on the Hills, circa 1900s. Taken at the Crag Hotel terrace.

- 9. Sunrise from Penang Hill, circa 1900s. The highest point visible in the picture, over the strait, is Bukit Mertajam.
- 10. Road to Penang Hill, circa 1900s. There was no funicular train then, and to get to the Hill, one would either walk, go on horseback or sit on sedan chairs carried by porters.

**\*Note:** Special thanks to Eugene Quah and Rexy Prakash Chacko for their help in identifying some of the hills.



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FOOTNOTES

[1] <https://penanghill.gov.my/index.php/en/attractions>

[2] [https://gtwhi.com.my/wp-content/uploads/2019/05/A-Guide-to-George-Town\\_s-Historic-Commercial-and-Civic-Precincts.pdf](https://gtwhi.com.my/wp-content/uploads/2019/05/A-Guide-to-George-Town_s-Historic-Commercial-and-Civic-Precincts.pdf)



**RACHEL YEOH** is a former journalist who traded her on-the-go job for a life behind the desk. For the sake of work-life balance, she participates in Penang's performing arts scene after hours.



No. 43.  
Road  
to Penang  
Hills.

# EDGECUMBE ON PENANG HILL: A TRIP UP MEMORY LANE

BY ANNE TAN

**PERCHED HIGH ON** Penang Hill and set back from a road which has a gradient of 45 degrees, sits Edgcumbe. This two-storey bungalow built by Lim Cheng Teik c.1928 is currently derelict, the jungle slowly and relentlessly reclaiming it. Reputed to be haunted, it certainly is worlds away from the former glory of its heyday, when its residents would enjoy the view afforded from the beautiful terrace.

I first learned of its existence during a recent stay in Penang. Though I have taken the funicular up Penang Hill several times and explored its upper sights, I was unaware of the existence of the many bungalows which dot the Hill's landscape—and of their history. Through discussions with members of my extended family—resident Penangites—I learned that they retained vivid memories of the bungalow, which they visited often as children.

Their access to Edgcumbe came about because their grandfather, Tan Heng Soon, a Penang comprador (See *Penang Monthly* May 2024 issue) had rented the bungalow for a period of 10 years from the owner. Tan, in his later years, did not enjoy good health, and the reviving cooler climes of Penang Hill was no doubt restorative for his health.

In this sense, Tan Heng Soon's use of the bungalow neatly mirrored the reasons so many before him sought respite on the Hill. Penang settlement founder, Francis Light, c.1793 built a Hill dwelling, the purpose of which among other reasons was "for the good of health". Jules Claine, French explorer, diplomat and photographer commented on the Hill dwellings when he visited Penang on his year-long tour of Malaysia (1889-1890), noting their



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importance to "Europeans... exhausted by the fevers of the lowlands".

An advertisement for the Crag Hotel extolled its virtues as a sanatorium on Penang Hill.<sup>[1]</sup> It was described as the perfect health resort promising a crisp and bracing atmosphere with beautiful scenery and excellent walks (See *Penang Monthly* November 2022 issue).

Once mention of the Penang Hill bungalows commenced, it seemed to open the floodgates of memory for my relatives, and the lively discussions which ensued confirmed the importance of the times they had spent exploring Edgcumbe as youngsters. Equally interesting were their reminiscences of staying in a number of bungalows later in their teenage years. I listened as they excitedly listed South View, Fairmont, Lower Claremont and Woodside Bungalows. But... back to Edgcumbe!

By now, photos were being produced... and there was a sense of history emerging.

Three old black and white images conjure up occasions when Edgcumbe was their playground. In Photo 1, we see the bungalow in its heyday.

From its wonderful vantage point, this belvedere commands such a presence. Casement windows flung open allow cooling breezes to refresh the smiling inhabitants. Obviously a happy family time, I can just spy my late mother-in-law looking out from an upper window. She loved family to visit, and so they came often. Lovely striped blinds, both furled and unfurled, speak to the shady coolness that the bungalow provided against the tropical heat.

Photo 2 shows two little children caught in time gazing back at us. Just for a brief span, the cousins stand still, captured by the lens. She is holding her doll, his stance is pensive. A slight smile plays on both faces, and their gaze is direct and focused. Framed by the bungalow's balustrade, the scene is restful and calm. Arranged along the top of the balustrade are potted plants, enhancing a tranquil scene.

Photo 3 both reveals the wonderful views from and the ambience of the bungalow, and captures a sense of family visitation and fun. As some adults including my late father-in-law enjoy the cooling views, my mother-in-law tries her hand at golf!

### OUR RETURN TO PENANG HILL...

Well, that conversation had by now convinced me... I had to see Edgecumbe!

With some help, I organised an intrepid trip up the hill by the jeep service (or what we Aussies would call a 4WD). As depicted in Photo 4, I was accompanied by family members including the two nieces who had not returned to the bungalow in over 50 years! The trip began at the Botanic Gardens, where we met James, our designated driver. Skillfully and unerringly, he navigated safely around each hairpin bend upwards. Given the steep gradient, the trick seemed to be to gun the engine forcefully around the bend, each one tighter than the one before! I must say I was delighted that somehow I'd scored the front passenger seat!

Upon arrival at the closest point to Edgecumbe, we disembarked and scrambled, more or less elegantly, onto the steeply sloping road. As one of my friends commented when she later saw my photos: "Crampons were needed for that road!" In fact, it was easier to walk backwards down the hill; when walking forwards, I had the distinct feeling of taking a head dive! Just think of the early trips up the Hill by chair and of those who carried them!

The braver in the group ventured off road and followed a leaf-littered pathway connected to the bungalow (Photo 5).

Each step forward took us tantalisingly closer as the way curved through tree canopy and creeper vines. The air felt cooler, and although I feared snakes more than ghosts, we pressed on until there was Edgecumbe rising above us... a silent sentinel. A substantial portion of the building was invisible, the rest having been overtaken by vegetation; the upper storey and remains of the balustrade and terrace were still recognisable. Gaping holes where windows once were and casement frames detached and awry lent a rather mournful feeling to the whole scene, while traces of the original paint finish remained visible (Photo 6). Only the balustrade and terrace seem to have resisted deterioration and decay, and continue to mark out its territory. Where formally the bungalow sat high on the hill and surveyed all around, now it is being consumed from below.

The experience was bittersweet, seeing how such a once-majestic building has decayed. Soon, I fear the bungalow will be hidden from view by the voracious encroaching jungle, and all traces vanished.

I took many photos to record the visit and the smiles on my relatives' faces were a testament to the memories evoked on this day. Family recollections informed by photographs act as a catalyst for what was a most exciting visit. The trip provoked and crystallised happy family memories and broadened my knowledge of a part of Penang's history. A truly immersive experience!



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### FOOTNOTE

[1] Pinang Gazette and Straits Chronicle, 2 May, 1911.



**ANNE TAN** is a retired academic and independent researcher. She lectured in the Arts Faculty, Deakin University. She received a BA in English, History and Interdisciplinary Studies from La Trobe University, a BEd from Monash University and an MEd (Hons) from James Cook University with her thesis "The Creation of Reading Environments: Personnel, Practice and Prospect". She can be reached at [annex1944@gmail.com](mailto:annex1944@gmail.com).





It took three tries. Our first two summit attempts in 2022 were halted by impregnable jungle and bad weather. On our third, with experienced hikers Heng Aik Sin (Heng) and Anthony Chan, we finally made it up. But it was on the way down, following the ridge toward Pulau Betong village, that we made a chance discovery.

Anthony spotted it first—a weathered rectangular stone, toppled over and half-buried beneath leaves. Once we cleared the debris, to our surprise, Heng intentionally poured some coffee on top of the survey marker. The beverage pooled into the etched letters and numbers that read: TS 11. We had found a long-lost trigonometric station (henceforth known as TS stone for brevity).

These granite markers, once essential to colonial-era surveying, have become obscure—unremarkable to most hikers. But for enthusiasts like Heng, they are part of a quiet cartographic legacy.

We re-erected the stone to its upright position. A quick photo captured the moment—four tired, smiling explorers, and a marker restored to its place.

This article is about finds like these—not antiques or heirlooms, but TS stones, rain gauges and GPS trail strings that form animal shapes. These aren't just hikes—they're stories in the hills, waiting to be revealed.

#### LAND MARKS

Historically, a trigonometric station was a precisely placed “granite stone with centre mark”, used as a key reference point in surveying. These markers—also called trig stations—served as mounts for theodolites, an instrument used for land surveying. However, advancements in modern surveying technology have rendered the TS stone obsolete.

The “primary and secondary triangulation of Penang and Province Wellesley was completed in 1887”. According to the Straits Settlements Departmental Report in 1914, “One hundred and seven and a half miles of traverses along roads, streams, paths, sea-coast and boundaries of lots were done in connection with surveys and connected to the permanent traverse stations, previously fixed. In order to facilitate future survey operations, 105 other stations were fixed.” The lower numbered TS stones—assuming they were numbered chronologically—appeared to have started from the west coast of Penang. [See Triangulation Chart of Penang Island and Province Wellesley from 1908 annotated by Heng].

For hiking enthusiast Heng Aik Sin, who hikes and explores the hills of Penang extensively, TS stones hold a special fascination. Heng has spent countless hours geolocating and photographing TS stones across Penang. Like many, he was initially drawn to hiking for the pure joy of immersing himself in nature and breathing fresh air.

As his expeditions grew longer and more adventurous, he began utilising GPS applications on his smartphone. This sparked a renewed interest in geography and led him to seek out old maps of Penang which show the locations of TS stones. Unfortunately, some of these maps are no longer accessible—these were once hosted by the Visions of Penang site managed by the George Town World Heritage Incorporated (GTWHI). We hope that they may be made available again. Conveniently, the TS stones were primarily located on peaks throughout the state—ideal for Heng, who had already set a goal to scale every peak in Penang.

Heng and other trig hunters—as Eugene calls them—can thank Frederick William Kelly, former Deputy Surveyor of India, for this detailed set of maps of Penang. In the 1890s, legislative councillor William Edward Maxwell (later acting governor of the Straits Settlements) saw an urgent need for an accurate survey of the territories of Penang, as without it, land revenue could not be collected efficiently (or at all), and land disputes could not be resolved. Maxwell envisioned that when the ambitious survey was completed, Penang would be “far ahead of the other Settlements, and would have maps that would compare favourably with those of any other Crown Colony”.

“On 1st January 1891 survey operations were in full swing in Penang and the Province with a fully equipped and well organised party composed partly of the old Straits staff but mainly of surveyors drawn from India.” This ambitious project was led by none other than Frederick William Kelly (c. 1834-1901). He had been seconded from the survey department of India. The re-survey was completed in 1893 and Kelly left Penang on 1 May 1894. The resulting maps—the Kelly Maps—were the most detailed and accurate ever made in the 19th century. It was often assumed that the TS stones were placed by Kelly, though some may have been from earlier times, placed there by surveyors Peters and Laseron prior to 1891.

#### RAIN GAUGE HUNTERS

While trig hunters combed the hills for TS stones, another kind of marker catches the attention of a different kind of collector—the rain gauge hunters. Remy is one himself.

The significance of Penang's hills as vital water catchments for the state cannot be overstated. The water authority, Perbadanan Bekalan Air Pulau Pinang (PBAPP), maintains a network of rain gauges (abbreviated as RG) throughout the hills to monitor rainfall patterns, which serve as key indicators for forecasting water levels in the state's dams and reservoirs. A total of 35 numbered rain gauges are scattered across the hills on the island, and their sequential numbering has turned the act of locating them into a fun “catch-'em-all” challenge for hikers.

One of the earliest enthusiasts to embark on this trend of locating and photographing rain gauges was Rob Dickinson, a retired British science educator who came to teach at the then-newly established Universiti Sains Malaysia (USM) in 1972. Rob, now in his late 70s, visits Penang with his wife each year, exploring the hills during his trips here. He began systematically “collecting” RGs in 2016, locating almost all the accessible ones by 2019. Rob was drawn to the endeavour by its finite nature—there are only a limited number of RGs, making the pursuit both worthwhile and achievable.

At the time Rob started, GPS applications for hiking were not as widely used as they are today, and RG locations were certainly not indicated on these applications. His approach in locating RGs was primarily through trial-and-error, occasionally relying on tips from fellow hikers who happened to chance upon an RG he had yet to find.

Over time, as Rob found more RGs, he began to understand the underlying pattern. They were sequentially numbered around the catchments, and typically placed along ridge paths within gazetted water catch-



**EUGENE QUAH** is an independent researcher and writer who is working on a book tentatively called “Illustrated Guide to the North Coast of Penang”. He rediscovered the joys of writing after moving back to Penang from abroad.



**REMY PRAKASH CHACKO** is an electronic engineer by profession and a nature lover by passion. While he spends his weekdays earning a living at the Bayan Lepas Free Industrial Zone, his weekends are spent reflecting and recharging on the green hills of Penang.

FEATURE

CAPTIONS

[1] The Triangulation Chart of Penang Island and Province Wellesley (1908), annotated with TS stone locations (in red) by Heng.

[2] Rob Dickinson standing beside a PBAPP rain gauge.

[3] A screenshot of the 26km-long unicorn trail, GPS drawing.

[4] Heng Aik Sin posing with TS stone number 24.

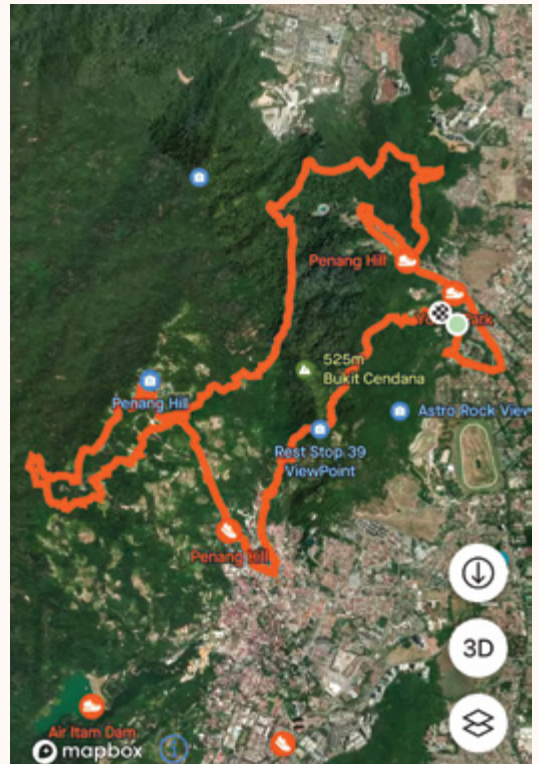
[5] The authors with Anthony Chan (centre left) and Heng Aik Sin (centre right) at Bukit Bakar Kapur in 2023, shortly after the discovery and re-erection of TS 11 (seen in the foreground).

[6] Map showing the network of PBAPP rain gauges and the trails connecting them. Map courtesy of Penang Hills Watch (PHW).

[7] GPS Drawing enthusiast, Krystal Khaw, during a trail running event. Photo credit: Nakawan Ultra & FastLens Picture.



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ment areas. This then helped him narrow his search zones for ones he had not located. Rob's RG expeditions took him through some of Penang's best-preserved catchment forests, enriching his appreciation of the hills' topography and deepening his understanding of the critical role these forests play in safeguarding water resources.

### GPS ARTISTRY

One of the most unusual and creative hobbies to emerge in recent years is GPS drawing—and in Penang, it is turning the island's hills into a giant open-air canvas (albeit virtually). Here, hikers are using GPS technology to transform their treks into works of art, with the island's terrain as their medium.

As they walk, these "artists on foot" collect waypoints—digital location markers that trace their journey, a bit like the breadcrumb trail in *Hansel and Gretel*. GPS software then connects these waypoints into coloured lines on a digital map, revealing shapes and patterns that only become clear once the hike is done.

In Penang, these creations often take the form of animals and mythical creatures—birds, mice, even unicorns—meticulously drawn out by hiking pre-planned routes that can be both intricate and physically demanding.

Who would have imagined that something as simple as a walk in the hills could become a modern form of storytelling and artistic expression? Yet GPS drawing is quickly becoming one of the quirkiest and most delightful ways to explore—and "collect"—Penang's landscape, one step at a time.

Krystal Khaw, a seasoned trail runner, is no stranger to the outdoor community. She regularly participates in competitive races and has won numerous events, both locally and internationally. Krystal's love for the hills began in her childhood, when she hiked with her parents. About a decade ago, she transitioned from hiking to trail running—she enjoys the adrenaline.

One of the trails which has become popular during Krystal's journey as a trail runner is the 26km-long Unicorn Trail, which rewards hikers with the "line art" of a unicorn. Krystal attests to how this trail began, first in the shape of a horse, before hikers got creative and decided to add a horn to it, transforming it into a uni-



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corn. Soon, more "animal" GPS drawings emerged in the hills, including the Rabbit, Snake, Puppy and Squid trails. These creative shapes were crafted by adding small diversions or deliberate turns along existing paths to achieve the desired outlines.

It was when friends began sharing GPS recordings of these animal-shaped "line art" on social media that Krystal became interested in "collecting" them. The challenge, after all, was to "draw" the best-looking map. It might sound easy, but a single wrong turn along the track could completely mess up the "drawing". For Krystal, who is also a certified mountain guide (Malim Gunung Perhutanan), collecting animal-shaped GPS drawings brings a sense of accomplishment; these are usually lengthy trails which take hours to complete, and therefore come with bragging rights! Moreover, since most of these trails feature considerable distance and elevation gain, they also serve as excellent training grounds—an essential component of her journey as a trail runner.

The hills of Penang have always held treasures for those willing to seek them. What began with colonial surveyors hammering granite markers into ridgelines has evolved into trail runners sketching unicorns across valleys—armed with nothing more than their footsteps and GPS signals. These collections—whether carved stones, numbered rain gauges or digital tracings—reveal a curious truth: our relationship with these sublime slopes keeps changing, yet somehow it stays the same.

Like Heng pouring coffee into the etched numbers of a forgotten TS stone to bring its identity to light, each collector reveals something different in these hills. Some uncover history, others chase scientific meaning, and a few turn the landscape into a canvas for creativity. Perhaps, in the end, it's the hills themselves that are the true collectors—gathering our stories, our footsteps, our markers and our maps, layer by layer, generation after generation.

So, the next time you venture into Penang's highlands, look a little closer. That weathered stone, that quiet metal gauge, or that odd curve in the trail might be part of someone's story—or the beginning of your own. What will you find? What will you leave behind? The hills of Penang await the answers.

### REFERENCES

[1] Pinang Gazette and Straits Chronicle (1894), "Revenue Survey Department", 11 May 1894, Page 2

[2] The Straits Independent and Penang Chronicle (1891), "Revenue Survey Department", 18 April 1891, Page 2

[3] Pinang Gazette and Straits Chronicle (1891), "Survey Department Report 1890", 18 April 1891, Page 5

[4] The Singapore Free Press and Mercantile Advertiser (Weekly), "The Surveys of the Colony. A Rectification", 3 October 1901, Page 7

[5] Pension Department (1901), "Proceedings of Government of Fort Saint George in the Pension Department for the Year 1901"

[6] Straits Settlements (1912), "Annual Departmental Reports of the Straits Settlements for the Year 1912"

# ECHOES FROM THE HILL: ORDINARY FARMERS, EXTRAORDINARY VOICES

BY ONG KE SHIN

“TAKE THIS PAPAYA—it’s very sweet, from Penang Hill,” the vegetable seller handed me the fruit with a smile, her pride evident.

As a regular visitor to the Air Itam morning market, I’ve heard this pitch countless times—vendors proudly proclaiming that their produce are grown on the Hill. But who are these people cultivating crops on the Hill instead of the flatland? How do they go about their lives? These questions were answered in “Echoes from the Hill”, a documentary aired in March 2025 at COEX@KilangBesi, Penang.

## HIDDEN STORIES

Directed by independent documentary filmmaker Andrew Ng Yew Han, “Echoes from the Hill” offers a glimpse into a lesser-seen side of Penang Hill. I had expected a nostalgic retelling of Penang Hill’s past, the kind of story that evokes colonial charm. However, as the documentary unfolds, it becomes clear that it is not what I thought it



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would be. The documentary shifts the focus away from stories of those with power and privilege to spotlight the “small voices”<sup>[1]</sup> of farmers who have cultivated the land for generations. For once, these ordinary farmers take centre stage.

## LIFE ON THE HILLS

Born out of a year-long research project supported by The Habitat Foundation, the documentary explores the agricultural practices and lives of farmers within the Penang Hill Biosphere Reserve (PHBR). Through interviews, the research team uncovered the farmers’ histories, their struggles, adaptations and the changes they’ve faced over the years.

Conducting interviews with the farmers posed a unique challenge, as many spoke only Mandarin and Hokkien—languages unfamiliar to Andrew. The research team played a crucial role, facilitating the interviews and later meticulously tran-

scribing and translating the footages to ensure the farmers’ voices are accurately captured and understood.

Meanwhile, Andrew immersed himself in the agrarian life, shadowing them in their daily routines and capturing over 100 hours of footage, which he later skilfully condensed into a 20-minute film.

Filming, however, was no easy feat. While logistical support from the Penang Hill Corporation (PHC) eased some challenges, many farms remained accessible only by foot from the Middle Station. Navigating steep terrain while carrying heavy equipment, coupled with unpredictable weather, made the process even more demanding.

“Farmers are often misunderstood,” Andrew said during the post-screening session. “They’re seen through negative perceptions. I hope viewers approach this film with an open mind... After getting to know these farmers, I realised their knowledge is tremendous.” Farming on the hills requires far more than just agricultural skills, it demands a deep understanding of the environment. These farmers have spent decades reading the terrain, sensing shifts in the weather and finding ways to share their space with the wildlife that comes to feast on the fruits of their labour—literally. Their knowledge, though not framed within scientific terms, is invaluable. As Yong Ah Chye, an Abiu (*Pouteria caimito*) fruit farmer put it: “Those who don’t observe the hill have no idea about its situation.”

Living on Penang Hill also demands an understanding of communal resources and shared responsibility, especially when it comes to water, a lifeline for the entire community. “If you want to live on the Hill, you must take good care of the water,”



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one farmer said. The community works together to manage and distribute water fairly, ensuring that every household has access to it.

**A PRECARIOUS EXISTENCE:  
LAND AND LIVELIHOODS AT RISK**

Lives on Penang Hill may sound idyllic—the cool breeze, panoramic views, roses and dahlias blooming in the crisp mountain air—yet, the reality is far from romantic.

“It is very tough to run an orchard,” recalls Lim Weng Heng, a fruit farmer. In earlier times, farmers carried crops downhill on their shoulders and transported fertiliser up the steep slopes. A community-built motorcycle path later eased the journey. Today, there is a new set of challenges. Rising temperatures and unpredictable weather patterns have made it more difficult to cultivate crops like chrysanthemums and watercress, which thrive in cooler climates. To survive, farmers have had to adapt and switch to different crops.

Land insecurity adds to their struggles. Many do not own the land they work on, relying instead on informal tenancy agreements, leaving their future on the hills indefinite. As the documentary unfolds, a deeper concern becomes evident—very few among the next generation are willing to take up farming. With an aging generation left to tend the land, the future of hill agriculture is increasingly vulnerable.

**WHAT LIES AHEAD?**

As the screening drew to a close, a palpable sense of concern lingered in the air. The audience, visibly moved, expressed deep worry for the future of the farmers.

“What’s next?”

“How can we support these farmers?”

Their questions made one thing clear: the “small voices” captured in the documentary had resonated deeply with those who heard it.

Yes, the challenges are complex, entangled with broader challenges such as sustainable land use, food sovereignty and climate change—but there is hope. PHBR, recognised under UNESCO’s Man and the Biosphere (MAB) Programme, stands as a promising prospect for the community. It offers the opportunity for Penang Hill to become a living model of sustainability—a place where nature and human communities coexist in harmony, encompassing not only biodiversity conservation, but also socio-economic development and cultural preservation.<sup>[2]</sup>

Bringing this vision to life requires more than simply inclining our ears to these “small voices”. The local knowledge, social capital and intangible cultural heritage embodied by these farming communities should be seen as invaluable assets for achieving long-term sustainability.

This transformation requires holistic and inclusive decision-making, a shift in governance, and unwavering collective action. Policymakers, researchers, advocates, the farming community and all of us ordinary people who rely on these farmers so we have food to put on our table must play our part. It is a shared responsibility and a test for society to see if we know how to treasure what we have so that it will not disappear.

**\*Note:** As part of this project, a booklet titled *The Farmers on Penang Hill: Time Past and Time Present* has been published. Those interested in learning more about the farmers’ stories may contact: [info.araresearch@gmail.com](mailto:info.araresearch@gmail.com).

**FOOTNOTES**

[1] The term “small voices” is borrowed from Ranajit Guha’s work, *The Small Voice of History*, which highlights the voices of the marginalised, often overlooked in mainstream historical narratives.

[2] For more information on the goals and initiatives of the Penang Hill Biosphere Reserve (PHBR), visit PHBR’s Official Website: <https://phbr.pbbpp.com.my/biosphere-reserve/>

**CAPTIONS**

1. The future of Penang Hill’s farming community hangs in the balance, shaped by a complex interplay of changing weather patterns, land insecurity and an aging population. Source: Evelyn Teh
2. An agricultural slope on Penang Hill. Source: Evelyn Teh
3. The screening of “Echoes from the Hill” at COEX in March 2025 drew a full house. Source: Ong Ke Shin
4. Andrew shooting a scene for the documentary.



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**ONG KE SHIN** is a biologist-turned-geographer who finds joy in experimenting with food and cherishing the diverse wildlife that rhythmically visits her home garden.



# TENBY'S STEAM FEST: INSPIRING THE COMMUNITY

BY SAMANTHA  
KHOO

**THE LONG-STANDING** proverb that “it takes a village to raise a child” remains relevant, possibly even crucial today, seeing that social media and the Internet may increasingly encourage polarisation of ideas. In school, international mindedness and community support act as vital—and often invisible—threads, weaving well-rounded students. This insight is what drives Tenby Schools to offer its students more than just learning, it fosters community building.

Every year, in the northern part of Penang island, Tenby Schools hosts a lively festival named the STEAM Fest to promote the second wave of STEM education, as mentioned in the Malaysia Education Blueprint. The term STEM, founded in the early 1990s, later evolved in the US in the mid-2000s to include A for Art, hence the acronym STEAM. Already in its fourth consecutive year, the STEAM Fest is open to the community, and promises discovery-based learning, memorable experiences and tonnes of fun.

## STEAM AND UN SDGS

In Tenby, STEAM doesn't function like regular subjects, taking up two or three hours of a student's weekly timetable. It is a learning framework that underpins every subject, guiding the learning goals and content. It is a multifaceted approach that often combines the skills and disciplines of different subjects. STEAM brings together Science, Technology, Engineering, Art and Mathematics to create holistic learning experiences that mimic reality in the world beyond their classroom: always complex, rarely in silos and never in black and white.

Tenby heavily emphasises five important competencies in their students: critical thinking, creativity, collaboration, character and community. STEAM and these 5Cs work hand-in-hand to equip students with the skills and mindset needed, and the UN Sustainable Development Goals provide meaningful, real-world contexts. Together, they empower learners to solve real-world problems. This is reflected in many hands-on activities conducted during STEAM Fest.

Last year, the school launched the STEAM Engine—an impressive three-storey building on the Penang campus. With rooms dedicated to robotics, XR labs (Extended Reality), culinary arts, drama and music, the space often teams with Tenby students working on various projects. "The STEAM Engine's launch underscores our mission to provide a holistic education that is both inclusive and forward-thinking," explains Jeanne Denyer, Campus Principal of Tenby Schools Penang.

When asked about their thoughts on the new 75,000ft<sup>2</sup> building, Tenby student, Qandra writes in response: "I feel so happy in the STEAM Engine. It is full of laughter, fun, respect and kindness." Parents of students seem to feel the same; they frequent The Engine Room—a café serving coffee and brunch delights—making friends with other parents.

## THE SCHOOL AND ITS SURROUNDINGS

This year, on 26 April 2025, over 800 people poured into the school to participate in the festival. Across the campus, various STEAM activities took place, echoing the vibrant atmosphere of a regular day at Tenby.

"The main objective is to raise awareness about STEAM and create intrinsic motivation among younger minds. We want them to take the STEAM pathway in their lives and understand the important role they can play as a member of society," says Sathisha Goonasekaran, the STEAM Lead at Tenby.

In one corner, Tenby students performed an interactive street drama with a twist: "Aladdin and Jasmine"—but highlighting the harsh truths of social inequality (UN SDG 10). In another, students learned about the impact of fast fashion and took on the role of designers at the Makerspace, stitching blankets from recycled fabrics for an animal shelter (UN SDGs 11 and 15).

Many explored augmented reality through designing a unique piece of furniture for their classroom, and by using the green screen in the XR lab where students took on the role of newscasters. Harry Potter fans had special treat given to them by the Tenby School Parents Association; participants wore VR goggles to explore the world of Harry Potter while learning about our five life competencies. May from Year 5 writes that the activities during the STEAM Fest were "all challenging in a good way, and tested our creativity and collab-

“STEAM brings together Science, Technology, Engineering, Art and Mathematics to create holistic learning experiences that mimic reality in the world beyond their classroom: always complex, rarely in silos and never in black and white.”

oration with others. I liked the robotics and cooking challenges in particular because I get to work with my friends to complete the activities.”

There were also workshops on integrating gamification in financial literacy, making money matters fun and engaging even to younger students. While one group of students delved into how bacteriophages work as an alternative to antibiotics (UN SDG 3), another learned to cook while adopting zero-waste principles (UN SDG 12).

All these activities are not just fun and games. As Sennen, a Tenby student expresses it: "The STEAM Fest has encouraged me to think about STEAM in my career."

## MAKING LEARNING STICK

The event was made possible by Tenby's many strong partnerships with TechDome, Universiti Sains Malaysia (USM), AIMST University, INTI College, SEAMEO RECSAM, The One Academy, Cytron, Walnut Academy, Gleneagles Hospital Penang, Cezar's Kitchen, Switch Malaysia, Bursa Malaysia, University of Southampton Malaysia, Beacon Mart and Viatrix. "These partnerships provide our students with meaningful opportunities to engage in new experiences, making their learning relevant and engaging—making learning stick," said Denyer.

The institution has also decided to make STEAM learning experiences accessible to the community at no charge. "We may be an international school, but we are still in the local community, and we want to support the community we're in," Sathisha adds.

The STEAM Fest is held to inspire teachers and school leaders, empowering them to champion STEAM learning. At Tenby, they are not gatekeeping knowledge, they want to see more schools investing in STEAM so that together, schools can actively and effectively shape Penang's future generation.

Tenby's commitment to STEAM for the broader Penang community is what motivates them to organise the yearly STEAM Fest, so that the public can come and experience it themselves.



A personal blogger since her teenage years, **SAMANTHA KHOO** has always enjoyed stringing words together. Her dream is to live off-grid in a cottage with all the coffee, ink and paper she can have.





“

I insisted on telling the truth, and pushed to create this policy,” Zhong says. “As a result, Wuhan became one of the first places to implement mask protection and isolation policies.”



# LESSONS FROM MY FATHER: ZHONG NANSHAN ON THE PURSUIT OF MEDICAL TRUTH

*This article is based on an interview with Professor Zhong Nanshan, done on March 8 during his visit to Penang Institute, where he spoke at the 9th Annual Dr. Wu Lien-Teh Public Lecture and received the 4th Dr. Wu Lien-Teh Award for Leadership in Public Health, co-hosted by the Dr. Wu Lien-Teh Society and Penang Institute. The interview was originally conducted in Mandarin by the team: Pan Yi Chieh, Iylia De Silva and Ong Siou Woon.*

**BY  
IYLIA  
DE  
SILVA**

**ZHONG NANSHAN** is a renowned respiratory physician and a pivotal figure in China's public health, best known for his contributions during the SARS and Covid-19 outbreaks. His evidence-based approach to medicine and commitment to truth were shaped early by his upbringing in a medical household, particularly under the influence of his father, Zhong Shifan, a dedicated pediatrician.

Born into modest circumstances and raised by his uncle in Xiamen, Zhong Shifan excelled academically and was admitted to Beijing Medical School in 1924. During this time, he met Zhong's mother, Liao Yueqin, a nursing student at Xie He Hospital. His discipline, precision and relentless work ethic left a lasting impact on his son, shaping the values that would guide Zhong's career in respiratory research and public health.

One Sunday afternoon in 1937, one-year-old Zhong Nanshan and his family were at a park when an air raid alarm interrupted the peace. The outbreak of World War II had brought the Japanese army to the city, and relentless bombings soon reduced their home to rubble. Forced to flee, Zhong's grandmother led the family to safety, eventually settling in Guiyang, the capital of Guizhou province, where they took shelter in a hospital.

In 1946, when Zhong was 10, the family moved to Guangzhou. His father was often called away late at night to treat sick children, and Zhong vividly remembers the gratitude of parents whose children recovered under his care. "My father enjoyed his achievement," Zhong recalls. "It was my first impression that being a doctor is a respected job."



**He also stresses the importance of living in a clean, green environment, and detecting and treating health issues early (早诊早治). He believes that following these principles can help individuals live to an average of 80 to 90 years old, while those who surpass 100 owe it largely to genetics, which account for about 15% of longevity.”**

#### THE POWER OF PRECISION

Zhong studied medicine at Beijing Medical College from 1955 to 1960. After graduating, he began his career as a research teacher in biochemistry. During the Cultural Revolution in 1966, he was sent in a medical team to a village near the Great Wall. They encountered a child suffering from hematuria, suspected to be caused by renal tuberculosis. Confident in his diagnosis, he reported his findings to his father—who immediately challenged him. “Are you sure?” his father asked. “Many diseases cause blood in the urine.” Zhong had no answer.

His father, a man of few words, emphasised precision and proof. “Everything you say must have solid evidence. That was the biggest lesson he taught me.”

This instilled in him a strong sense of discipline and precision—especially in reporting medical cases, where accuracy was crucial to prevent misinformation. Even today, he adheres to the same principle: seeking truth above all else. He believes that textbooks are not always accurate, and that true knowledge comes from firsthand observation. As he puts it, “Only believe what you have seen.”

In 1977, after China’s Open Door Policy, he was selected for overseas training. Despite having studied some subjects in Russian, he now had to master English. He first spent six months learning English in China before continuing his studies in London and Edinburgh. Writing in English was difficult, but he persisted. He wrote letters to his father, who meticulously corrected every grammatical and spelling error in red ink. At first, the corrections frustrated him, but over time, fewer red marks appeared, and his English improved.

#### CHALLENGING THE SARS DIAGNOSIS

In 2003, China’s media reported that SARS was caused by *Chlamydia pneumoniae* and assured the public that antibiotics were effective. Zhong, however, had treated SARS patients firsthand for months and questioned this conclusion—*Chlamydia* does not spread so rapidly, nor does it resist standard antibiotics.

Zhong stood by his findings, and his team proceeded with their own approach to treatment. Two months later, researchers in Hong Kong and other regions confirmed the real cause: SARS was caused by a coronavirus. This experience reinforced his belief in the importance of truth. As the Chinese proverb says: 不唯书、不唯上、只唯实 (*go beyond books, go beyond authority, and follow the facts*).

The lesson resonated again in early 2020. On January 18, during a one-day assessment in Wuhan, Zhong and his team identified signs of human-to-human transmission of Covid-19. Two days later, he travelled to Beijing to report their findings directly to the central government. His announcement led to urgent public health measures, including mask mandates and isolation—reminiscent of Dr. Wu Lien-Teh’s strategies during the 1910 Manchurian plague.

“I insisted on telling the truth, and pushed to create this policy,” Zhong says. “As a result, Wuhan became one of the first places to implement mask protection and isolation policies.”

#### A COMMITMENT TO GLOBAL PUBLIC HEALTH

Beyond infectious diseases, Zhong has dedicated decades to researching chronic obstructive pulmonary disease (COPD) and asthma. In the 1990s, he became a member of the Global Initiative for Chronic Obstructive Lung Disease (GOLD), and contributed to the development of COPD treatment guidelines. He also served on the executive committee of Global Initiative for Asthma (GINA), working to improve asthma management worldwide.

In 2020, amid accusations from then-US President Donald Trump of bias within the World Health Organisation (WHO), the Independent Panel for Pandemic Preparedness and Response (IPPPR) was formed. As China’s representative on the WHO-organised panel, Zhong and his team spent over 10 months defining Covid-19 and outlining global management strategies. His role was to share insights based on China’s experience, particularly its emphasis on aggressive containment and protection of vulnerable populations.



Through his work, Zhong encountered numerous low-income patients who struggled to afford costly medications. This drove him and his colleagues to simplify treatment protocols and improve accessibility.

The WHO panel categorised government responses into four approaches: aggressive containment, suppression, mitigation and non-intervention. China adopted the principle of “生命至上” (Lives First), prioritising the protection of vulnerable groups and significantly reducing mortality rates. Immuno-compromised individuals received targeted safeguards, with protective measures eventually covering 20 to 30 million people.

#### THE SCIENCE OF LONGEVITY

Zhong Nanshan highlights six key principles for a healthy body: maintaining psychological balance, exercising regularly, avoiding smoking and limiting alcohol, and eating a balanced diet—while cautioning against overeating and recommending that breakfast make up 30% of daily intake. He also stresses the importance of living in a clean, green environment, and detecting and treating health issues early (早诊早治).

He believes that following these principles can help individuals live to an average of 80 to 90 years old, while those who surpass 100 owe it largely to genetics, which account for about 15% of longevity. Reflecting on his own experiences, Zhong acknowledges the many setbacks he has faced, but sees resilience as a matter of mindset. “It’s okay to feel anxious or sad—just let those emotions pass naturally,” he says. To him, mental strength is the foundation of well-being: “Half of good health comes from one’s mindset—mental well-being is just as important as physical health.”

Even after retiring in 2018 at 82, Zhong remains active in clinical work. When Covid-19 emerged, the Ministry of Public Health called on him to lead the national expert team—a responsibility he decided to take. Now serving as the director of a national research institute, he continues to contribute whenever needed.

#### A DREAM IN PROGRESS

Zhong Nanshan has dedicated significant time to researching COPD and asthma. One of his key findings involves potential asthma, a condition linked to bronchial hyperresponsiveness (BHR). His research suggests that individuals with BHR are more susceptible to developing asthma following a respiratory infection. While one aspect of this research has been completed, another remains a future goal.

Zhong’s ongoing mission is to reshape the global approach to COPD by emphasising early intervention. Currently, COPD management worldwide prioritises severe and critical cases, often neglecting mild to moderate patients. Unlike type 2 diabetes, where doctors intervene at the first sign of elevated glucose levels, COPD patients typically seek care only when symptoms become severe.

What happens, Zhong explains, is that both patients and physicians often overlook early symptoms, allowing lung function to deteriorate before seeking treatment. He advocates for a paradigm shift—intervening at the earliest stages to slow disease progression and improve outcome. His team is actively advancing this strategy, a mission he calls “a dream in progress”.

One of Zhong’s former students, now a WHO member, frequently reinforces this point. Some experts initially dismissed early intervention as overtreatment and an unnecessary expense. Western countries also struggle to conduct similar studies, as community-level patients rarely seek hospital care in the early stages. While Zhong acknowledges that not all mild to moderate cases require medication, he stresses that without early screening, many patients miss the window for timely care.

Despite these debates, Zhong remains committed to his vision. “My dream is that after several years, our strategy will be the leading strategy for treating COPD in the world.”

*\*Note: The author would like to thank Professor Zhong Nanshan and his team for their invaluable contributions to this interview.*



**IYLIA DE SILVA** is a law graduate from the University of London. Balancing work and play, she savours every moment by indulging in her passion for food, languages, music and engaging with people from diverse cultures.

# THE WISDOM OF KEEPING AN EMERGENCY BAG

BY NURUL  
NATASHA

**IN THE EVENT** of an emergency evacuation—whether due to an explosion, earthquake or a tsunami—do you have an emergency bag ready to grab and go? Perhaps you might be someone who only grabs your mobile phone before taking off; though that might be sufficient for a time, escaping with just the clothes on your back may prove inconvenient when you find yourself with much registering and confirming of identity to do, and no change of clothes or supplies.

Several countries have taken the initiative to encourage or advise their citizens to prepare 72-hour emergency kits for potential disasters. These typically contain essentials like food, water, medication and personal supplies. The European Union itself is also urging households to stockpile supplies for emergencies.<sup>[1]</sup>



## HOW ARE COUNTRIES PREPARING?

### FRANCE

The French government has started distributing a 20-page “survival manual” to reach all households by summer 2025. This guide includes recommendations for a 72-hour emergency kit containing at least six litres of bottled water, 10 canned food items, a flashlight, batteries and basic medical supplies. The idea is to make it as simple as possible for families, so they don’t get lost in the details when a crisis strikes.<sup>[2]</sup>

### GERMANY

Germany’s approach to emergency preparedness has been significantly influenced by past events, notably the 2021 floods and the Covid-19 pandemic. The German federal government published a comprehensive survival kit list that includes essentials such as non-perishable food, drinking water, first-aid supplies and important documents. The government also emphasises the importance of having a battery-powered radio to stay informed during power outages.<sup>[3]</sup>

### BELGIUM

Belgium’s National Crisis Centre advises residents to have survival kits and to register for alert messages. This is to ensure that citizens are not only physically prepared with necessary supplies but also informed through timely alerts. The recommended kits are equipped with items like canned food, bottled water, flashlights and personal hygiene products. They also encourage each vehicle to have an emergency kit equipped for winter and summer.<sup>[4]</sup>

### NETHERLANDS

The Dutch government proposes 72-hour emergency kits that focus on being self-sufficient. The kits should include food, water, medications, flashlights and even simple tools like can openers.<sup>[5]</sup> The goal is to manage the first few critical days after a disaster before help comes.

### TAIWAN

Due to its vulnerability to earthquakes, typhoons and even geopolitical tensions, the Taiwanese government encourages its citizens to have a well-stocked emergency kit. The Ministry of National Defense (MND) provides a detailed manual that suggests packing things like non-perishable food, water, personal medications, flashlights and hygiene items. Tools like knives and can openers, powerbanks and backup keys are also recommended. Owners of the kit are encouraged to check its contents every six months to ensure all items are in good condition.

### JAPAN

Those living in Japan must always be prepared for earthquakes, tsunamis and typhoons. The Japanese have a strong culture of preparedness, and it shows in their government’s advice on creating a *Bosai Bag* (disaster prevention bag). This kit should include at least three days’ worth of drinking water and non-perishable food, a hand crank or battery-operated radio, flashlights and first-aid supplies. Warm clothing, emergency blankets and rain gear are also highly recommended, along with copies of identification documents, cash and small personal items like dust masks and gloves.<sup>[6]</sup>

### PACKING AN EMERGENCY BAG

In Malaysia, natural disasters are not very common, and we often think, “It won’t happen to me.” But that is not the case for residents of Kelantan who face annual floods, or the folks in Selangor who can still recall the 2022 Batang Kali landslide that claimed 31 lives.<sup>[7]</sup> And just recently, on 1 April 2025, a gas pipeline in Putra Heights exploded, sending flames 30m into the sky, and with a heat so intense that cars melted, roads buckled and residents had to flee barefoot as their slippers melted on the asphalt. Some even jumped into the Klang River to escape the inferno.

In Penang, we’ve seen our fair share of flash floods, especially during the monsoon season. Between 2013 and mid-October 2017, the state recorded 119 flash floods.<sup>[8]</sup> Residents have observed a shift in weather patterns, with more powerful storms and heavy rainfall leading to significant flooding events. Penang’s combination of hilly terrains and overdevelopment has also made parts of the island more susceptible to landslides. We must also not forget the devastating tsunami that hit our shores in 2004.

A practical Malaysian emergency kit should include bottled water, non-perishable food, essential medications, a flashlight with extra batteries, copies of important documents and basic first-aid supplies. Considering the local climate and potential hazards, items like raincoats, waterproof bags and portable chargers (solar powerbanks are on sale now) are also advisable. Remember to personalise your kit based on your family’s needs. Got a baby? Pack diapers and formula milk. Elderly parents? Include their medications and any mobility aid.

With climate change messing up our weather more and more, it’s not about if something happens—it’s *when*.

No matter where you live, the principle is the same: the better prepared you are, the more resilient you’ll be in the face of a crisis. When seconds matter, you won’t have time to grab the essentials for survival.



**With climate change messing up our weather more and more, it’s not about if something happens—it’s when.**

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**NURUL NATASHA** is an intern at *Penang Monthly* with a passion for writing and graphic design. She enjoys crocheting, singing and occasionally making music—a ukulele is never too far from her reach.

# A DECADE BUILDING THE CREATIVE COMMUNITY AT HIN MARKET

# HIN

BY PAN YI CHIEH



“

Unlike other commercial spaces where profitability is the sole focus, Tan has remained true to his original vision for Hin Market—the spirit of community is paramount.”



**PAN YI CHIEH** is a research analyst at Penang Institute who was born in Taiwan but now lives in Penang. She is proud to be nurtured by the two beautiful islands she regards as home.

**CREATIVE MARKETS HAVE** been steadily gaining popularity in Penang, becoming crucial platforms for creative startups and businesses to showcase their products and build a customer base. Throughout the years, some of them—such as Hin Market at Hin Bus Depot—have evolved beyond simply being marketplaces; they have managed to foster an environment where people can connect and learn from one another.

The idea of having a Hin Market was conceived in 2015, a year after Hin Bus Depot opened its doors, as an art space within the once-abandoned Hin Company Bus Depot. While there were already markets at the time selling lifestyle products, the concept of a dedicated creative market had yet to firmly take root in Penang. Tan Shih Thoe, the visionary founder and owner of Hin Bus Depot, reached out to several vendors he knew and offered them space to peddle their products at Hin Bus Depot. The Hin Market proved to be a success, and quickly materialised into a weekly, signature activity at Hin Bus Depot.

This year marks its 10th anniversary.

#### **AN INCUBATOR FOR CREATIVE STARTUPS—A LABOUR OF LOVE**

On a Tuesday night in March, approximately 30 individuals convened on the deck at Hin Bus Depot for the monthly “Sembang Selasa@Hin” gathering. As one of Hin Market’s 10th-anniversary celebration activities, this monthly event organised by Queen Lee, the manager of Hin Market, serves to highlight the vision and stories behind the brands and products of Hin Market vendors, both past and present.

During this session, Jasmine Toh, the owner of the much-loved Lunabar Coffee, recounted her journey as one of the initial vendors at Hin Bus’ Sunday pop-up market before opening her own café several years later. It was there that she learned to navigate the unpredictable needs of customers, among other challenges. While acknowledging that opening a brick-and-mortar café was far more demanding with its own set of unique challenges, she deeply appreciates the wonderful experiences she had had as a vendor, cherishing her interactions with fellow vendors and customers alike, as well as the opportunity to share her passion for coffee with others.

Lunabar Coffee’s journey is not unique. Over the past decade, Hin Market has incubated and nurtured numerous small businesses, giving them the confidence boost and the resources to venture out and establish their own businesses after gaining experience. This trajectory perfectly reflects Tan Shih Thoe’s vision for establishing the market.

Since its inception, week after week, Tan personally oversees the curation and planning of the market. It is not uncom-



mon to see him in person there, attending to small details such as collecting trash and adjusting the fan placements. Tan’s hands-on approach, supported by a dedicated team, has been instrumental in the growth of Hin Market. Today, it features some 130 stalls across categories, encompassing arts and crafts, design, homemade goods and handmade creations. Visitors can shop for accessories, clothes, plants, artwork, food and drinks, or sit down for a tarot reading. The vendors—ranging in age from 20 to 70—come from diverse backgrounds, and include full-time artisans, part-timers looking to develop their skills, and retirees.

Hin Market’s concept has changed over the years, responding to the needs of the community. Queen Lee, a Penang artist with experience in curating creative markets, joined the team in 2022; the Sunday market was expanded into a weekend market to support the influx of vendors, many of whom had suffered from job insecurity after the pandemic. The weekly Saturday market is themed; and collaborations are often with different communities: the Grow Market focuses on agricultural products, the Kung Bros Collectors Market on antiques and second-hand items, and the Makers Market on handmade products.

Under Queen’s lead, Hin Market also managed to expand its network beyond Penang, and even Malaysia—in 2023, she brought several Hin Market vendors to showcase their work in a creative market in Chiang Mai.

#### **LOOKING FOR COMMUNITY BUILDERS**

As a popular market, many vendors aspire to have a presence at Hin Market. But for Tan, it is more than just an affordable marketplace; he has his own criteria for selecting vendors. The application process is conducted weekly—even for regulars and long-term vendors. Several factors are taken into consideration, such as product uniqueness, product quality, product presentation, branding, having an active social media presence and eco-friendliness. Hin Market sees each vendor slot as an opportunity for small businesses to build their brand, hence this process is necessary to

ensure the quality of the products sold at the market and alignment with the market’s direction.

Unlike other commercial spaces where profitability is the sole focus, Tan has remained true to his original vision for Hin Market—the spirit of community is paramount.

“We value the presence of community builders at Hin Market. We hope people come here not only to sell their products, but also to support, interact with and learn from one another.”

Ultimately, he envisions Hin Market as a place where creative businesses and individuals can grow and, when they feel confident enough, move on to pursue their ventures independently. Here, the value of community is central.

Drawing from a decade of experience, Tan observes the strengths and potential of each vendor, and how they interact with customers. He and the team will sometimes offer feedback to vendors for improvement, aiming not only to help the brand grow, but also to support the communal vibe of Hin Market.

These 10 years, Hin Market has proven itself to be one of the most important platforms for creatives, not only in Penang, but in the whole of Malaysia. In spite of their success, Tan remains humble as ever, “We still have much to learn to make it better.”



# IT'S NOT JUST

# IN YOUR HEAD:

# MENTAL HEALTH IN MALAYSIAN SOCIETY

BY  
NISHA  
KUMARAVEL

**THERE IS A** growing mental health crisis in Malaysia and across Asia. The World Health Organisation (WHO) estimates that one in every eight people in the world live with a mental disorder.<sup>[1]</sup> In Malaysia, according to the National Health and Morbidity Survey (NHMS) 2023, approximately 4.6% of Malaysians aged 15 and above (about a million individuals) are suffering from depression.<sup>[2]</sup>

The 2023 Malaysian Youth Mental Health Index highlights mental health trends among Malaysian youth. Around one in five youths report challenges like anxiety, depression and stress, with women more affected than men. Lower-income youths are particularly vulnerable, with financial instability exacerbating mental distress. Despite the prevalence of mental health issues, only one in three youths seek professional help, often due to stigma (60% fear being judged). Social media also affects mental health, with 50% of youths citing its negative effects, including cyberbullying.<sup>[3]</sup>

Mental health is often framed as an individual issue, as if it stems purely from personal weakness or poor coping mechanisms. This narrative ignores the broader picture—that mental health is profoundly shaped by the systems in which we live, including our families, schools, workplaces and institutions.

#### CHALLENGES IN ACCESS AND STIGMA

Malaysia has a severe shortage of trained professionals (see *Penang Monthly*, June 2024 issue), and mental health remains stigmatised and frequently misunderstood, feared or dismissed. A study conducted at a private university in Malaysia reveals that while students display good knowledge and attitudes towards mental health disorders, there are still significant differences in views based on age, ethnicity and education level, indicating underlying stigmatising beliefs.<sup>[4]</sup> Such stigma fosters silence, deters help-seeking behaviour and limits timely treatment until symptoms become severe or unmanageable.

In many rural and conservative communities I've worked in, mental distress is perceived as a moral or spiritual failing rather than a health issue. Faith healers and religious leaders are frequently the first point of contact, and while their support can be meaningful, relying on them exclusively delays professional intervention. This delay is compounded by the taboo around discussing mental health openly, making it difficult for individuals to even recognise their suffering as valid or treatable. As a mental health professional in Malaysia, I've come to see that culturally sensitive engagement is essential for building trust and opening pathways to care.



**NISHA KUMARAVEL** is a licensed counselor, communications specialist and project coordinator, advocating for labour and farmer's rights, as well as agricultural and political reform. In her spare time, she enjoys reading and caring for her 13 unruly cats.





**Mental health is often framed as an individual issue, as if it stems purely from personal weakness or poor coping mechanisms. This narrative ignores the broader picture—that mental health is profoundly shaped by the systems in which we live, including our families, schools, workplaces and institutions.”**

#### A SYSTEMIC AND COMMUNITY ISSUE

Mental health does not exist in a vacuum. It is deeply influenced by economic stress, social structures and policies. These intersections are crucial to understand the root causes of psychological distress and to develop more holistic and effective interventions.

#### MATERIAL WELLBEING

In Malaysia, financial insecurity is a major contributor to mental health challenges. When individuals struggle to meet basic needs such as food, shelter and health-care, the stress can lead to anxiety, depression and burnout. This is particularly significant when viewed through the lens of Maslow’s Hierarchy of Needs, where unmet physiological needs such as food and shelter take precedence, preventing individuals from focusing on emotional or psychological wellbeing. It restricts a person’s ability to address psychological concerns, amplifying feelings of hopelessness. For many, the inability to afford mental health services or the distance to available resources worsens the crisis. Without financial security, mental health care becomes out of reach.

*Case Example:* Hafiz\* from Perlis lost his job during the pandemic and began experiencing symptoms of depression. As the sole breadwinner for his family, his financial strain exacerbated his distress. Initially, Hafiz sought my services in Penang, but after a few sessions, he had to return to Perlis due to his continued unemployment. Sessions continued online, but over time, his financial situation worsened, and he was unable to afford further sessions.

#### FAMILIAL TIES

In Malaysia’s collectivist society, family plays a central role in shaping an individual’s identity, emotional wellbeing and social support network. Strong family bonds may offer resilience and emotional support; however, they can also be sources of significant stress, especially when personal desires conflict with societal or familial expectations. This dual role of family providing both support and pressure can become problematic when cultural norms clash with personal identities or aspirations.

This is particularly true for vulnerable groups such as LGBTQ+ individuals, who often face rejection or misunderstanding from their families. Such rejection can lead to increased psychological distress, including depression, anxiety and suicidal ideation. A scoping review of Malaysian studies involving LGBTQ+ individuals highlights the marginalisation and mental



health challenges faced by this community. The review emphasises the need for more inclusive research and healthcare practices that address the unique experiences of LGBTQ+ individuals in Malaysia.<sup>[5]</sup>

Additionally, cultural beliefs significantly influence help-seeking behaviours among Malaysians, particularly in caregiving roles. A study exploring cultural influences in mental health help-seeking among Malaysian family caregivers find that caregivers often rely on religious and cultural coping strategies, which sometimes hinder timely professional intervention.<sup>[6]</sup>

### EDUCATION

The Malaysian education system is often a high-pressure environment that prioritises academic achievement over emotional wellbeing. For many students, the constant pressure to perform, coupled with high-stakes examinations and the expectation to memorise large volumes of information create a culture where mental health issues are minimised or ignored. The competitive nature of the system, where results affect not only individual students, but also reflect on the school's overall performance, adds an additional layer of stress. This environment leaves little room for students to develop healthy coping mechanisms, often leading to severe consequences.

*Case Example:* An 11-year-old was referred to me with symptoms of selective mutism. He was a bright student, but struggled in an environment that placed heavy emphasis on exam results. The relentless pressure to perform, combined with the fear of disappointing his teachers and parents, led to an overwhelming sense of anxiety. At school, he would sometimes fall silent, unable to speak even when spoken to, particularly during group activities.

### RELIGION

Religion plays a significant role in many Malaysians' lives, offering comfort, purpose and community. This can be beneficial when spiritual support complements emotional care, but problematic when religious teachings are used to dismiss or oversimplify mental health issues, leading to guilt, shame or delayed help-seeking. This highlights the need for sensitive, culturally informed mental health support that respects spiritual values while reducing stigma. Integrating faith with professional mental health care can support holistic healing.

*Case Example:* Although I am not a Christian, I did my internship at a church-based counselling centre. While there, I shadowed a case with my supervisor involving a 34-year-old woman from Ipoh experiencing postpartum depression. She had initially turned to her church's pastoral counsellor, who encouraged her to increase prayer. While this and the Scripture offered her some comfort, her symptoms persisted. With guidance from a fellow church member and the support of our centre, she began therapy that acknowledged and respected her faith.

### MINORITY GROUPS

Other systemic issues, including gender, disability and ethnicity, intersect with mental health. For example, women often bear the dual burden of managing household responsibilities alongside full-time work, leading to increased stress and potential burnout. Additionally, the Orang Asli, Malaysia's indigenous population, face economic marginalisation and cultural erosion, which exacerbate mental health challenges. Limited access to healthcare and education further compound these issues.<sup>[7]</sup> People with disabilities also encounter social exclusion and limited access to mental health services. Despite the Persons with Disabilities Act 2008 aiming to ensure equal rights, gaps remain in service provision and societal inclusion.<sup>[8]</sup> Effectively addressing mental health requires interventions that consider these overlapping challenges.

### PATHWAYS FORWARD FOR MENTAL HEALTH IN MALAYSIA

To address Malaysia's mental health needs, public funding must significantly increase, focusing on mobile mental health units, therapy subsidies and the integration of mental health services into public clinics. The RAHMAN Mobile Mental Health Exhibition is one such initiative that reached underserved communities in 2023, offering mobile counselling and awareness sessions across rural areas. This initiative, in collaboration with the Ministry of Health, helped increase help-seeking behaviour, especially among youths and women in remote locations.<sup>[9]</sup>

Public awareness campaigns should extend beyond online content to engage local communities deeply. The #SembangKalauBimbang campaign, launched in Sabah, involved community leaders, including village leaders, local influencers and schools to hold mental health forums in indigenous dialects like Dusun and Bajau. This approach has significantly reduced mental health stigma in these villages, showcasing the power of localised engagement in breaking taboos.<sup>[10]</sup>

Community-based organisations are frequently the first point of contact for individuals in mental health distress. However, these grassroots organisations must be adequately equipped with the right training and resources to create safe and supportive spaces for people struggling with mental health issues.

Mental health must be a fundamental component of Malaysia's public health strategy. Initiatives such as the "Your Mind, Your Journey" campaign launched at Suria KLCC aim to normalise mental health discussions in public spaces. This initiative provided mental health education and access to resources, while aiming to reduce stigma in high-traffic locations.<sup>[11]</sup>

Mental health must be embedded in the structures of our society—how we work, educate, parent and govern. Addressing it means that everyone—policymakers, educators and religious leaders especially—must see mental health not just as a service, but as a collective social commitment and as the community's responsibility.

### FOOTNOTES

[1] <https://www.who.int/news-room/fact-sheets/detail/mental-disorders>

[2] <https://www.thestar.com.my/news/nation/2024/05/17/a-million-depressed-malaysians>

[3] 2023 Malaysian Youth Mental Health Index

[4] [https://www.researchgate.net/publication/341840216-STIGMA\\_AND\\_ATTITUDES\\_TOWARDS\\_MENTAL\\_HEALTH\\_DISORDERS\\_A\\_CROSS\\_SECTIONAL\\_STUDY\\_AT\\_A\\_PRIVATE\\_UNIVERSITY\\_IN\\_MALAYSIA](https://www.researchgate.net/publication/341840216-STIGMA_AND_ATTITUDES_TOWARDS_MENTAL_HEALTH_DISORDERS_A_CROSS_SECTIONAL_STUDY_AT_A_PRIVATE_UNIVERSITY_IN_MALAYSIA)

[5] [https://www.researchgate.net/publication/353944516-Current\\_Research\\_Involving\\_LGBTQ\\_People\\_in\\_Malaysia\\_A\\_Scoping\\_Review\\_Informed\\_by\\_a\\_Health\\_Equity\\_Lens](https://www.researchgate.net/publication/353944516-Current_Research_Involving_LGBTQ_People_in_Malaysia_A_Scoping_Review_Informed_by_a_Health_Equity_Lens)

[6] [https://www.researchgate.net/publication/284015053-Cultural\\_Influences\\_in\\_Mental\\_Health\\_Help-seeking\\_among\\_Malaysian\\_Family\\_Caregivers](https://www.researchgate.net/publication/284015053-Cultural_Influences_in_Mental_Health_Help-seeking_among_Malaysian_Family_Caregivers)

[7] [https://www.researchgate.net/publication/290191540-Marginalisation\\_of\\_the\\_Orang\\_Asl\\_i\\_of\\_Peninsular\\_Malaysia](https://www.researchgate.net/publication/290191540-Marginalisation_of_the_Orang_Asl_i_of_Peninsular_Malaysia)

[8] [https://www.researchgate.net/publication/260243509-Rights\\_of\\_the\\_People\\_with\\_Disabilities\\_and\\_Social\\_Exclusion\\_in\\_Malaysia](https://www.researchgate.net/publication/260243509-Rights_of_the_People_with_Disabilities_and_Social_Exclusion_in_Malaysia)

[9] <https://mentari.moh.gov.my/rahman-mobile-mental-health-exhibition-softboard/>

[10] <https://says.com/my/lifestyle/air-selangor-sembangkalahumbimbang-mental-health-campaign>

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\*Names changed to protect identities.




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SCAN ME

# SEAWATER BATTERY TECHNOLOGIES: AN OFFER MALAYSIA SHOULD NOT REFUSE

**THE COASTAL WATERS** surrounding Penang Island hold more than just tourist appeal and fishing potential—they could be the key to Malaysia’s renewable energy evolution. As ASEAN nations race to diversify their energy portfolios, innovative (but often ignored) technologies that leverage our most abundant resource—seawater—are emerging as promising alternatives in the renewable energy landscape. I will address two technologies here.

## SEAWATER-ACTIVATED BATTERIES: THE NEXT WAVE

Imagine a world where a battery doesn’t need to be charged—at least in the conventional sense, but rather, activates upon contact with seawater. This isn’t science fiction; it is a rapidly developing technology with significant implications for Malaysia’s renewable energy sector. At this juncture, it should be apparent why R&D for such tech has either been shelved or ridiculed to the hilt. Many simply avoid the simple question of why more money is not being spent developing this.

Trinasolar invested USD381.41mil in R&D, and had cumulatively filed 5,649 patent applications by the end of June 2024.<sup>[1]</sup> All that resource focused on solar cells and modules which, for all intents and purposes, are a big photosensitive diode. Doesn’t sound as sexy when you put it that way—but it is what it is. The point is that a lot of resources were thrown behind essentially proven tech to squeeze out marginal incremental improvements. I say this to give some perspective to the effort made and the outcome achieved.

Imagine the progress that could be made to develop seawater technology with the same resources and gusto.

## HOW DO SEAWATER-ACTIVATED BATTERIES WORK?

This energy system typically features three key components:

- An alloyed aluminium anode
- A nickel-based cathode
- An alkaline electrolyte

When seawater enters the system, it serves as a catalyst, initiating an electrochemical reaction that generates electrical current. Unlike conventional batteries that require external charging, these systems harness the chemical potential inherent in the interaction between metals and saltwater.

## BY LIONEL YAP



**LIONEL YAP TECK LI-ONG** is a Senior Manager with over 20 years of leadership in the renewable energy industry, particularly notable for securing 3,500MW PV for a major client and heading the Malaysian Photovoltaic Industry Association (MPIA). He has demonstrated expertise in stakeholder collaboration, regulatory affairs and policy advocacy, contributing significantly to Malaysia’s solar energy frameworks while serving as a thought leader and industry advocate.

For optimal performance in Malaysian coastal waters, particularly off Penang Island, the following materials show the most promise. At this juncture, we’re back to basics in terms of proven materials, purposely avoiding more exotic nano-infused materials. With that in mind, here are the everyman materials:

### 1. Anode Materials:

- Aluminium-magnesium-tin alloys: Offer excellent corrosion resistance while maintaining high energy density
- Aluminium-gallium-indium-tin alloys: Enhance reactivity in the tropical seawater conditions of Malaysia

### 2. Cathode Materials:

- Nickel-iron hydroxide: Cost-effective with good stability in warm seawater
- Manganese dioxide with carbon additives: Enhance conductivity while remaining environmentally benign

Given the scale of generation required, the anodes and cathodes would occupy a large area, and maximise energy output while maintaining cost efficiency in implementation:

### 1. Electrode Surface Modification:

- Increasing surface area through nano-structuring
- Implementing hierarchical porous structures to maximise reaction sites

### 2. Electrolyte Optimisation:

- Using ionic additives that enhance conductivity in tropical seawater temperatures
- Implementing flow-through designs that maintain fresh seawater contact

### 3. Material Processing:

- Mechanical alloying techniques to reduce manufacturing costs
- Utilising locally sourced materials where possible to minimise import expenses

As you can see, apart from the nano-structuring, none of what is listed is particularly high-tech.

FEATURE	SEAWATER-ACTIVATED BATTERIES	SEAWATER ELECTROLYSIS
Primary purpose	Direct electricity generation	Hydrogen production & possible freshwater generation
Input required	Metals (Al, Mg) + seawater	Electricity + seawater
Primary output	Electrical current	Hydrogen, oxygen, potential freshwater
By-products	Metal hydroxides	Concentrated brine/sea salt
Energy direction	Chemical to electrical	Electrical to chemical
Infrastructure requirements	Battery cells, metal anodes	Electrolysers, power source, gas storage
Technological maturity	Emerging	Established but developing for seawater
Initial capital cost	Moderate	High
Operational complexity	Low to moderate	Moderate to high
Scaling potential for Malaysia	High near coastal areas	Moderate, requires significant infrastructure



As Malaysia continues its journey toward sustainable energy independence, harnessing the potential of the seas that surround it represents not just an environmental imperative, but an economic opportunity.”

**SEAWATER BATTERIES VS. SEAWATER ELECTROLYSIS: UNDERSTANDING THE DIFFERENCES**

While both technologies leverage seawater, they operate on fundamentally different principles and yield different outputs. The table above seeks to clear up the crossovers, convolutions and confusion. To quote my favourite T-shirt from Thailand, “Same Same, But Different”.

**COMPARATIVE ANALYSIS**

The details above are rudimentary because there simply is low/no interest in the technology given all the glamour surrounding mainstream technology, global narrative and the multi-billion-dollar ecosystem that exists.

But there is more.

Seawater-activated batteries convert chemical energy from the reaction between metals and seawater directly into electricity. This is fundamentally a one-way process where the metal anode is consumed as part of the reaction. Seawater electrolysis, conversely, requires electricity input to split water molecules into hydrogen and oxygen. When hydrogen and oxygen recombine in combustion, they produce energy and water vapour (steam).

Additionally, the electrolysis process can potentially yield freshwater and sea salt as valuable by-products if properly designed. My thoughts drift to selling bottled fresh water, giving new meaning to the term “energy drink” (see what I did there?) and “Penang’s own sea salt”.

The primary distinction lies in the direction of energy conversion:

- Batteries: Chemical energy → Electrical energy
- Electrolysis: Electrical energy → Chemical energy (stored in hydrogen) → Heat/electrical energy (when hydrogen is used)

**KEY CONSIDERATIONS FOR MALAYSIA**

Blessed with coasts around nearly all of Peninsular Malaysia, Sabah and Sarawak, the appeal for the technology should be obvious to the country. However, there is always the need to weigh the pros and cons and not fool ourselves with cognitive biases. So, here is some food for thought.

**SEAWATER-ACTIVATED BATTERY**

**Advantages:**

- Simple deployment makes it ideal for remote islands in East Malaysia.
- Low maintenance renders it suitable for rural coastal communities.
- No charging infrastructure is required for off-grid applications.
- Potential supplemental power source available for all coastal cities and towns.

**Limitations:**

- Lower power density necessitates larger deployment areas.
- Performance is affected by Malaysia’s seasonal monsoons and water temperature fluctuations.
- Shorter lifespan in tropical marine environments due to accelerated corrosion.

**SEAWATER ELECTROLYSIS**

**Advantages:**

- Multi-product system producing hydrogen, freshwater and sea salt aligns with Malaysia’s resource diversification goals.
- Smaller footprint makes it suitable for limited coastal industrial zones.
- Possibility of it being integrated into Malaysia’s expanding solar capacity for green hydrogen production.

**Limitations:**

- Higher technical complexity requires skilled workforce.
- Greater initial investment cost needed will be challenging for a developing economy.
- Electrode degradation is accelerated in tropical marine environments.

**ENVIRONMENTAL CONSIDERATIONS**

- Both technologies have minimal environmental impact compared to fossil fuels.
- Seawater-activated battery has lower environmental impact during operation.
- Electrolysis system requires careful management of brine discharge to protect Malaysia’s rich marine ecosystems.

These estimates for seawater electrolysis and seawater-activated battery assume optimal conditions and current technological capabilities. Actual implementation would require site-specific studies considering Malaysia’s unique tropical marine environment, monsoon patterns and coastal infrastructure availability. Given that coastal areas are eco-sensitive, such a sizeable deployment might involve increasing project implementation cost into the financial “no-go” zone.

**IDEAL CONDITIONS FOR DEPLOYMENT OFF PENANG ISLAND**

While the technology can be implemented at numerous coastal locations, optimal implementation near Penang would feature:

- Water temperature between 28-30°C (typical for Penang’s coastal waters)
- Moderate salinity levels (approximately 32-34 PSU<sup>[2]</sup>)
- Protection from extreme wave action (Penang Island’s east coast)
- Proximity to existing electrical infrastructure
- Sufficient depth (10-30m) to allow for stable installation
- Minimal interference with shipping lanes and fishing activities

Specific potential deployment zones include the waters off Teluk Bahang, the northeastern coast near Batu Ferringhi or the more sheltered eastern waters near Jelutong.

While the desktop study indicates this, an actual site inspection and the preverbal environmental impact study (EIA) might say otherwise. It has never been the lack of technology that hinders progress. Given how active environmental and civil activists are in the island state, the technology for either would likely raise a few red flags; “a few” being the case because there are some people who have the ability to find a problem to every solution they’re given.

At the same time, many of us have heard this statement in one form or another, “If there’s a problem, and money can fix it... then there’s no problem.”

Such is the case with seawater-activated batteries and seawater electrolysis. If oil and gas companies can drill for oil 3km down into the murky depths in mud, sediment and megalodon remains in stormy seas, and twist their drills laterally to extract crude, how hard can it be to implement the tech discussed here?

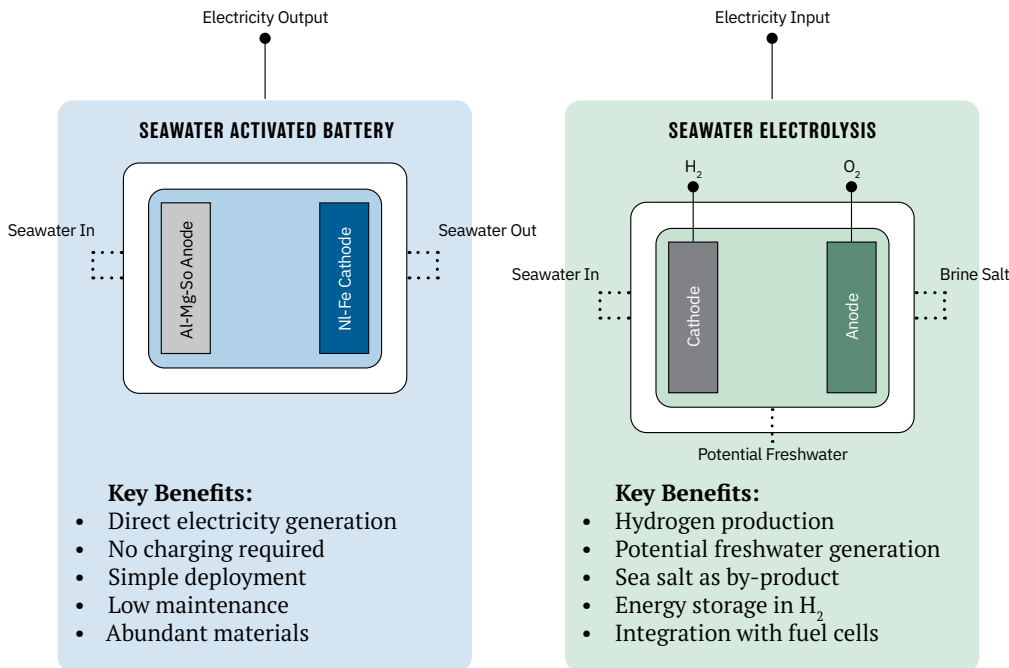
As Malaysia continues its journey toward sustainable energy independence, harnessing the potential of the seas that surround it represents not just an environmental imperative, but an economic opportunity. With careful development and strategic implementation, seawater battery technology could become a cornerstone of Malaysia’s renewable energy portfolio, turning the azure waters of Penang into a powerhouse of clean, sustainable energy.

**FOOTNOTES**

[1] <https://static.trinasolar.com/eu-en/resources/newsroom/eutrinacosolar-reports-revenues-6-billion-and-profits-74-million-half-yearly>

[2] Practical Salinity Unit

**SEAWATER ENERGY TECHNOLOGIES: A COMPARISON**





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# THE CONTOURS OF HOME: FROM PALAIS TO PULAU, AN EXHIBITION ON BELONGING AND ODDITIES

BY LIANI MK

**WHILE HOME REPRESENTS** safety and comfort, it also acts as an intimate space shaped by unseen systems of discipline and boundaries. In it, each person is assigned unseen roles within a larger social order. Can home be liberating, or is it about learning the contours of one's place?

Singapore-based artist and educator Adeline Kueh mulls on the idea surrounding this sense and structure of home, as shaped by inherited roles embedded within our psyche.

"Home is not just physical, but also psychological," suggests Adeline, who, alongside fellow artist and co-curator Hazel Lim, co-founded the Critical Craft Collective (CCC), a curatorial platform that uses craft to explore dynamics of power, care and kinship.

Their latest exhibition, *From Palais to Pulau*, challenges conventional notions of domesticity and belonging. Its first edition was recently shown during the 2025 Singapore Art Week, and is being restaged in Penang this June. An ode to dislocation and deep care, the exhibition acts as a gathering that reflects different ways of belonging through everyday materials, found objects and slow conversations that often begin around a kitchen table.

"[The exhibition includes] all items of care. And when [we] give attention to these things, there are values that are imbued in [them] below the surface," says Adeline. "These elements of beauty can be ways of

imagining the future, of hope, of resilience."

The duo's collective began under lockdown. "Covid-19 really got us to rethink all these things because the demarcations between home and work were erased," says Adeline in a recent interview.

Their starting point was the Victorian-era tome published in 1861, *Mrs. Beeton's Book of Household Management* by Isabella Beeton. "The main idea was on how to relook some of these ideals, break them down, unpack them and think about what they mean in the 21st century for us here and now," says Adeline.

Acting as an etiquette manual and domestic scripture, the text became CCC's critical mirror. "It's Victorian, but still it's so relevant to us," says Hazel. "We thought, how could we do a little spin... and a riff on this through the exhibition?"

That riff manifests in their collective's series of works and gatherings that unpack how home, care and craft are shaped by history and colonial inheritances alongside expectations of gender roles.

## KINSHIP AS A VERB

Adeline and Hazel's approach to curating draws from a feminist and queer lineage of care, inspired by theorists like feminist scholar Donna Haraway, media theorist Wendy Chun, Gavin Van Horn and botanist Robin Wall Kimmerer—where care and kinship are verbs and embodied in



## CAPTIONS

1. Hilmi Johandi's "Stagehands" (still), 2017. Image by the artist.

2. Adeline Kueh's "Glimpses of/from the window" (detail), 2025. Image by Vinson Phua.

3. Wyn-Lyn Tan's "Particulate: On Heat and Home" (detail), 2025. Image by Vinson Phua.



2



3

actions rather than static ideals. As a verb, "kinning" involves reciprocity and deep listening.

"They are action-based, not just nouns," says Adeline. "[Scholars] talked about the idea of 'kinning' because—particularly in indigenous cultures—nature or plants are also teachers, as opposed to humans being on top of everything. And that's the kind of approach to understanding we are at. Perhaps if we are to consider these kinds of positionings, we wouldn't be as extractive or as disruptive towards things," she says.

"But this 'kinning'—this idea of kinship as a verb—is quite nice because it talks about how we have to be clear about our intentions... we have to be grateful... And then the deep listening is really very embodied because you listen with not your ears, but with your hands, your feet and your body. And there's a certain level of receptivity and reciprocity."

The duo's work therefore serves as a reclamation and a reimagining of what it means to create art.

This translates into everything from mentorship of emerging artists to their "radical domesticity" of hosting community-based exhibitions in transient, often overlooked spaces. Years of teaching and community-building have allowed them to navigate bureaucratic processes to mentor younger artists to do the same.

"For us, being on the ground is the idea for a grassroots movement," says Hazel. "Working with people and making do... I think that is kind of the ethos that we tend to follow."

"We as citizens have agency to also affect change from within," adds Adeline, adding that providing access as a means to "pay it forward" is central to their work.

Craft then becomes part of a heritage and methodology. It is a way of thinking, talking and being. "It's really about care and kinship being the primary emphasis for what the craft collective is about," says Adeline, who is also a senior lecturer at the LASALLE College of the Arts in Singapore.

## ART AT THE EXHIBITION

As much about unlearning as it is about making, *From Palais to Pulau* asks what it means to gather, to make space and to rethread home, especially in postcolonial contexts that continue to carry the weight of imported ideals. In this way, the exhibition examines "island" as a concept within struggles that toggle between connection, isolation and movement.

The exhibition brings together artists from Singapore and the wider Southeast Asian region, working with materials that range from textiles and discovered objects to video and digital installations.

It combines both physical and digital elements to explore themes of labour,

domesticity and the shifting idea of home. The artworks invite viewers to engage with personal and collective narratives of care, migration and belonging.

Adeline's mixed-media pieces include everyday items to trigger conversations about our relationship with rituals and each other. Her installation, "Bawang membawang"—using layers of linen and haberdashery that resemble onions, a basic staple in Southeast Asian cooking—examines the interlinkages between gossip, stories and labour through the act of peeling onions, suggesting that gossip can act as both a point of gathering, but also solidarity.

In "Pharmacopeias for Accredited Agents of Poisoning", Singaporean artist Zarina Muhammad uses a mix of crushed incense powder, soil, spices and mirrors to examine John Gimlette's 1915 text, *Malay Poisons and Charm Cures*, which touches on notions of gender and race through folklore, magic and geography.

In a digital installation titled, "kenti, kenti, sabrozu!", which is Kristang for "hot, hot, delicious!", Malaysian artist Andrea Danker explores the emotional dimensions of cooking and generational stories through a video focused on traditional recipes.

Adeline says that they are constantly figuring ways to work with various artists in Penang and across different communities surrounding the idea of home. "How do we create the notion of the home within



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4. Divaagar's "Fine Malaya", 2025.
5. Aaryama Somayaji's "Summer" (still), 2023. Image by the artist.



5

ourselves so that we can feel more at ease and feel more like we belong? The notion of belonging is key to me."

"I'm looking forward to 'kinning' more with Penang, and really [having] deeper conversations with people there," adds Hazel, whose own contribution, "Perpendicular Asymptotes", is a series of overlapping patterns through threads on paper that explores invisible labour, narrative and the construction of history through logic and creativity.

"We could probably find something quite similar," says Hazel, on bringing their exhibition to Penang, "to really facilitate a lot of good conversations."

#### REIMAGINING HOME IN PENANG

The exhibition's shift from Singapore to Penang mirrors the concept of home as an ever-changing communal experience. Both cities with histories as port settlements are places of constant exchange.

At Hin Bus Depot, the exhibition finds a new home in an open-air setting that has already made the artists feel welcomed.

"We already feel so at home," says Hazel, noting how the space itself has shaped their approach, including the inclusion of a film screening.

In Penang, Adeline is attuned to the shared histories of migration and exchange, where people transform unfamiliar places into home. "Our [prior] trips to Penang...

also gave us a very strong impression about what we can do together, what kinds of magic we can try and create... Every project is a learning experience."

For Hin Bus Depot curator Ivan Gabriel, the exhibition's theme is deeply personal. Having moved frequently within Penang as a child, he sees parallels with experiences of migrant workers in the island—many of whom, despite being far from home, have made Penang their own.

"Ofentimes as someone who takes care of the space... you always think about people coming in, you want them to feel welcomed. But sometimes we forget about ourselves."

At the exhibition's first edition in Singapore, Ivan was moved by artist Divaagar's work, "Fine Malaya", which depicted an old wooden cabinet showcasing banana leaf-themed utensils in various forms and materials. For Ivan, the artwork questioned colonial depictions of everyday Southeast Asian utensils and eating culture, and how these influence our self-perception and cultural identity.

"From a visitor's standpoint, I feel like I'm walking into someone's home and they are telling me the story of their upbringing and the struggles that they face," says Ivan. "A lot of it I can find resonance with, and a lot of it the artists are questioning. I realised that there was so much interlink, and I had not even met the artist in person."

Adeline hopes that the exhibition will generate more conversations like this on connection and community. "Conversations that start intimately can also have wider positive ripples that [tell us] we need not do things alone."

For her, it is like "seeding an idea". "We are very clear that [the exhibition artworks] can be a process-based experimentation," Adeline says, offering insight into the artist's thought processes. "Ultimately, we're playing house," she says with a smile.

"We hope that they will come and understand that homemaking is something that we bring, that we carry within ourselves," she says.

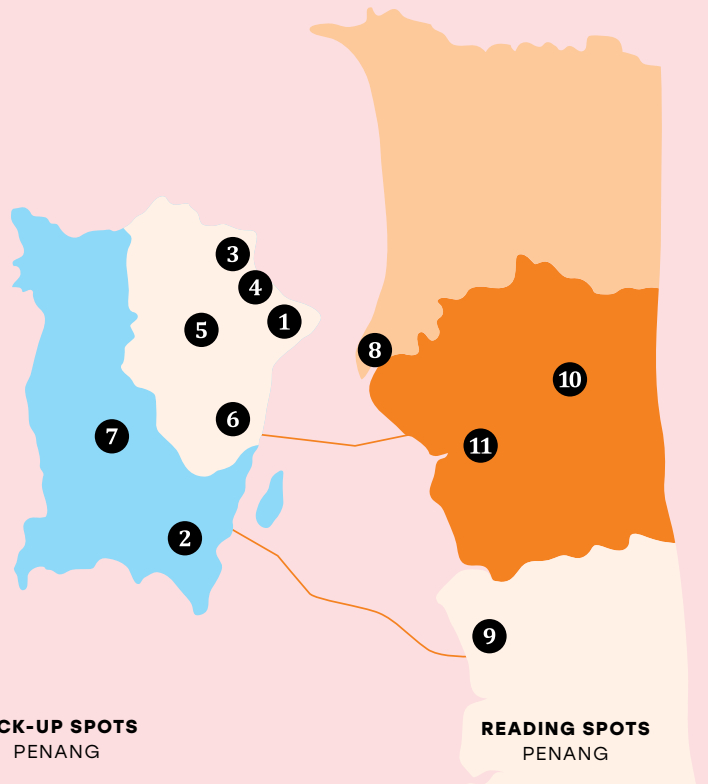
*From Palais to Pulau (Penang Edition) runs from 6 June to 7 July 2025 at Hin Bus Depot. The exhibition will be accompanied by a series of conversations, talks and guided tours.*

*Visit <https://www.criticalcraftcollective.com.sg/> for more information about the Critical Craft Collective (CCC).*



Of mixed indigenous roots, **LIANI MK** is an independent writer, journalist and artist covering indigenous knowledge, migration, language, film and culture in Southeast Asia. With a background in history and Southeast Asian Studies, she also engages in media advocacy with a regional feminist organisation.

# HERE'S WHERE YOU CAN FIND PENANG MONTHLY



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○	<b>Kuala Lumpur</b>
	Hubba Hubba Mont Kiara The Godown Arts Centre
○	<b>Petaling Jaya</b>
	Temu House Yin's Sourdough Bakery and Café
○	<b>Subang Jaya</b>
	Sunway University (Students Study Area)

## PICK-UP SPOTS PENANG

①	<b>George Town</b>
	Areca Books Book Island @ COEX Infinity 8 Black Kettle BookXcess Gurney Paragon ChinaHouse Cheong Fatt Tze Mansion (Blue Mansion) Gerakbudaya Bookshop @ Hikayat Gurney Plaza (Information Counter) Hin Bus Depot Art Centre Huey & Wah Café Le Petit Four Patisserie More by Arang Coffee Penang Institute Penang Island City Council (Komtar Level 3) Pusat Harmoni (Harmonico)—Reception Ren I Tang Heritage Inn Sin Seh Kai Artisan Bakery Tourist Information Centre 32 Mansion
②	<b>Bayan Lepas</b>
	Arang Coffee InvestPenang Penang Development Corporation (PDC) Penang Skills Development Centre (PSDC) Spices by Yin's Urban Republic

③	<b>Tanjung Bungah</b>
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④	<b>Tanjung Tokong</b>
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⑤	<b>Air Itam</b>
	Coffee Elements Penang Hill—Lower Station
⑥	<b>Gelugor</b>
	E-Gate (Security Desk located at the building's middle span) Penang Youth Development Corporation (PYDC) Universiti Sains Malaysia, Hamzah Sendut Library 1 (Main Entrance Foyer)
⑨	<b>Batu Kawan</b>
	IKEA Batu Kawan
⑩	<b>Bukit Mertajam</b>
	Seberang Perai City Council
⑪	<b>Juru</b>
	AUTO CITY Shop-In D'Park

## READING SPOTS PENANG

①	<b>George Town</b>
	Bricklin Café Bar Consumers' Association of Penang Forward College G Hotel Kim Haus Komichi Tea House Mugshot Café Narrow Marrow Penang Public Library USM Library Wheeler's Café
④	<b>Tanjung Tokong</b>
	Leo Books
⑦	<b>Balik Pulau</b>
	Botanica Mansion Nada Natural Farming
⑧	<b>Butterworth</b>
	Artichoke Café
⑨	<b>Batu Kawan</b>
	Peninsula College

With the tagline “Making Ideas Work”, Penang Institute encourages bold and innovative thinking not only in academic disciplines but also through the support it gives to literature and culture by way of events such as book launches, public literature seminars; through its public policy briefs, ISSUES, Monographs; through interviews with notable personalities on current state of affairs and trends, Penang Institute Chats; and through its renown magazine Penang Monthly. In times of crisis, Penang Institute will contribute to the management of such crises by publishing informed papers on the local situation and on how this relates to events and initiatives undertaken in other parts of the world.

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# MAKING IDEAS WORK