



Stories from the

KALLANG RIVER

Connecting People,
Places, and
Memories



Identity Corridor Guide



Acc. 100 ft. high

Palace Park

Mountain

Grasshopper River

DOG DUMPING

PETROLEUM ANCHORAGE

SMALL VESSELS ANCHORAGE

LAD-UP VESSELS ANCHORAGE

EXPLOSIVES AND DANGEROUS GOODS ANCHORAGE

G.P.O.

Cliffed Pier



Stories from the Kallang River:

Connecting People, Places, and Memories

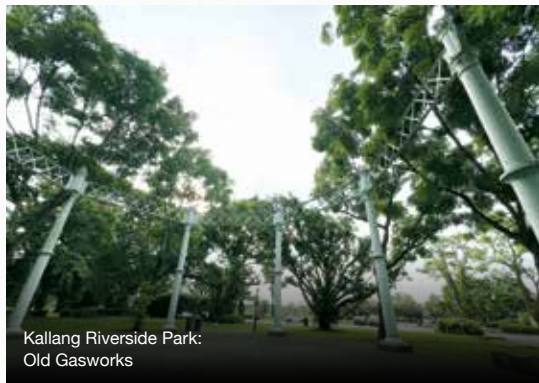
This series of **Identity Corridor Guides** was commissioned in 2024 to support URA's public engagement and co-creation efforts across the Identity Corridors, which were first introduced at the Long Term Plan Review of 2022.

A city without history and identity is a city without soul. Since the launch of the 2001 Concept Plan, URA has designated Identity Nodes and Corridors islandwide, so that these areas of significance and their unique characters can continue to be enjoyed by future generations.

Identity Corridors are longer stretches of urban fabric and natural spaces in the city that have special significance to Singaporeans. Found along old roads, rail lines, and waterways, they tell the story of the city's evolution.

It is envisioned that the research and stories unearthed through this documentation effort will help inform and inspire the placemaking strategies for each Corridor. It can also serve to guide the community in the co-creation of public realm enhancement projects and other initiatives along the Identity Corridors.

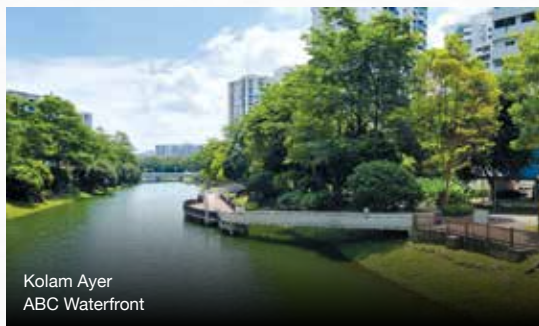
URA would like to thank all current and former residents and stakeholders, as well as historians and academics who have generously contributed their time, research, and insights to this publication.



Kallang Riverside Park:
Old Gasworks



Moonstone Lane Estate



Kolam Ayer
ABC Waterfront



ABC Waters @ Kallang River
(Potong Pasir)

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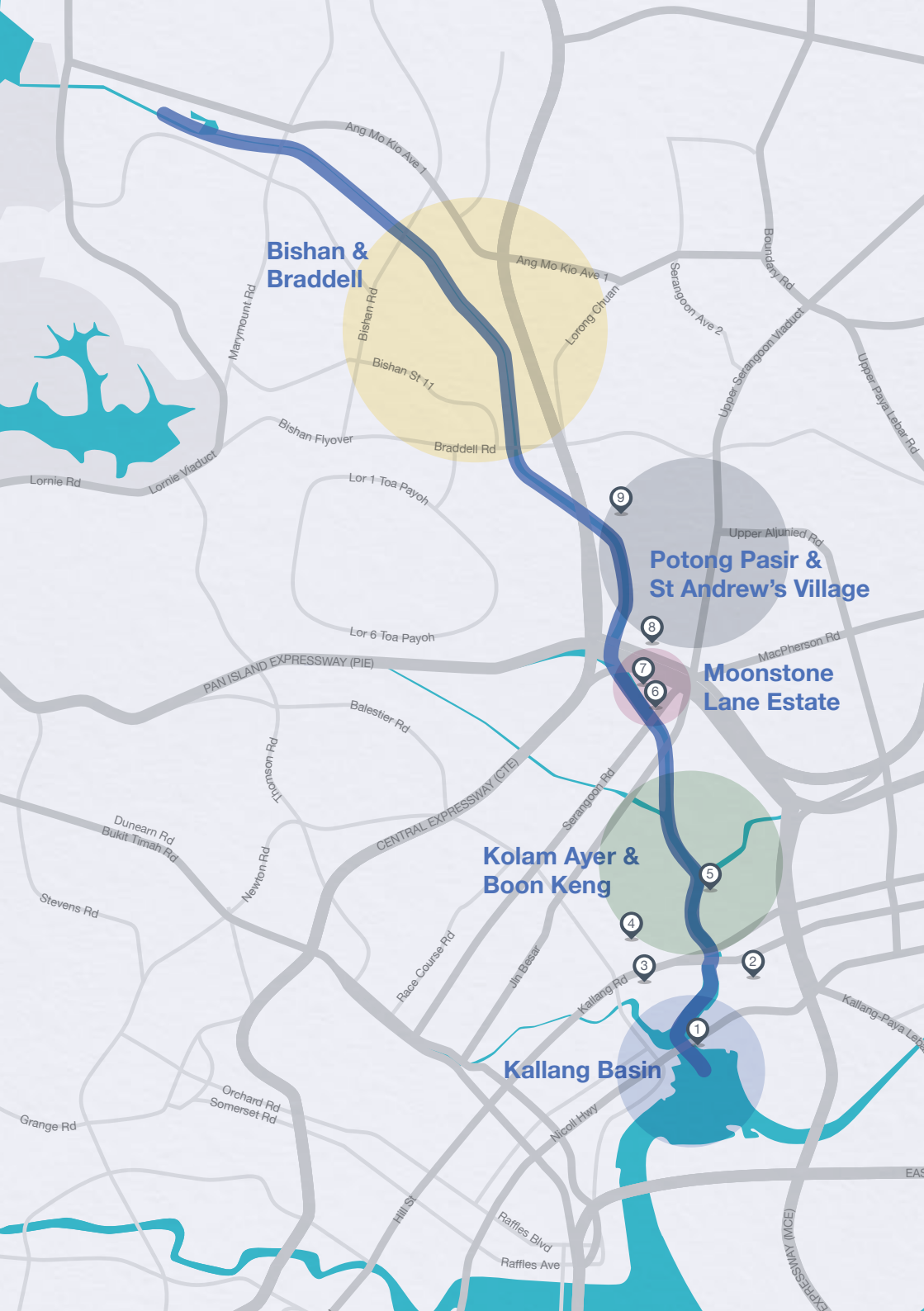
Bishan



Marina Barrage

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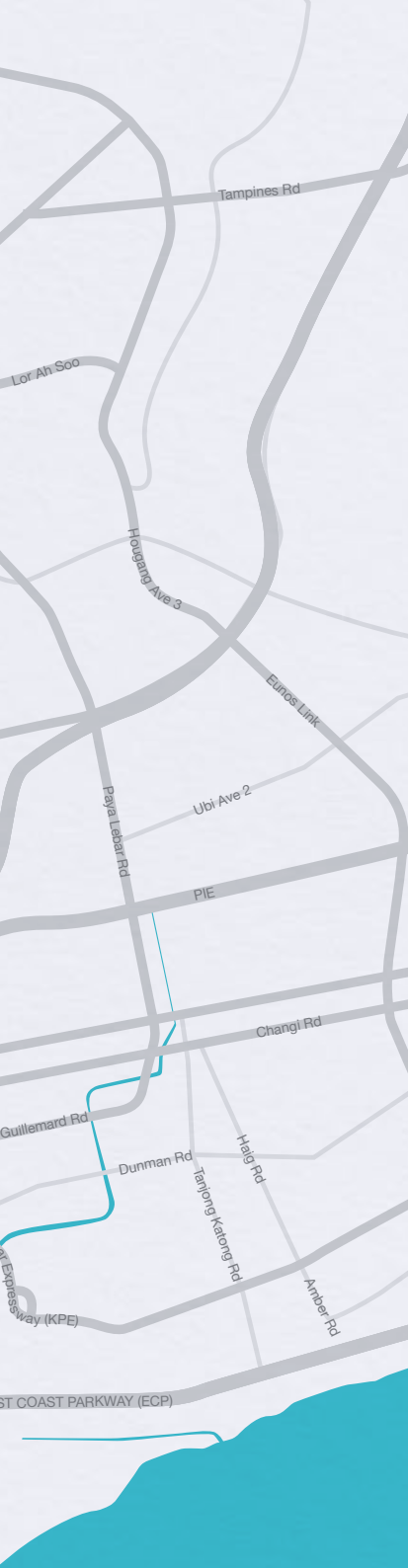
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INTRODUCTION

Kallang River is Singapore’s longest and perhaps the most historically significant waterway. Originating from Lower Peirce Reservoir, the 10 km river passes through Ang Mo Kio, Bishan, Toa Payoh, Potong Pasir, Kolam Ayer, and Kallang Bahru before converging at the Kallang Basin.

Stories from the Kallang River: Connecting People, Places, and Memories captures the rich heritage and transformation of people and communities from past to present. The stories serve as a reminder of the Kallang River’s economic and cultural role in shaping Singapore’s growth and identity.

Kallang Basin

Before the modern development of Singapore, Kallang Basin was a bustling maritime trading port for traders and merchants around the region. Driving the trade of spices, textiles, and more, the Bugis were among the traders who helped establish Singapore as an important node in Southeast Asia’s trade network. The Kallang Basin was also originally home to the Orang Biduanda Kallang, a seafaring indigenous group.

Gradually, the Kallang Basin became the site for industrial and urban development, giving rise to significant landmarks such as the Kallang Gasworks and the Kallang Airport.

Together with Geylang River and Rochor River, the Kallang River and its tributaries – Sungei Whampoa, Pelton Canal, and Bukit Timah Second Diversion Canal – empty into the Kallang Basin.

Today, the scenic waterfront views and recreational spaces of the Kallang Basin inspire a new sense of vibrancy, making it a popular venue for water sports and leisure activities – attracting locals and tourists alike.



Kallang Basin



Kolam Ayer and Boon Keng

In the early days, Kolam Ayer and Boon Keng were associated with swampy mudflats. Today, flanked by old and new public housing flats, the estate can be found along a vibrant and lush stretch of the Kallang River, where it is possible to kayak and get close to river wildlife.



Moonstone Lane Estate

This estate forms an urban village along the Kallang River and has a rich and fascinating history. Tied to Singapore's early industrial development, it was home to light industries as well as a vibrant multiethnic community.



Potong Pasir and St Andrew's Village

Named after the sand cutting industry, Potong Pasir was home to sand quarries that supplied building materials to early housing estates in Singapore.

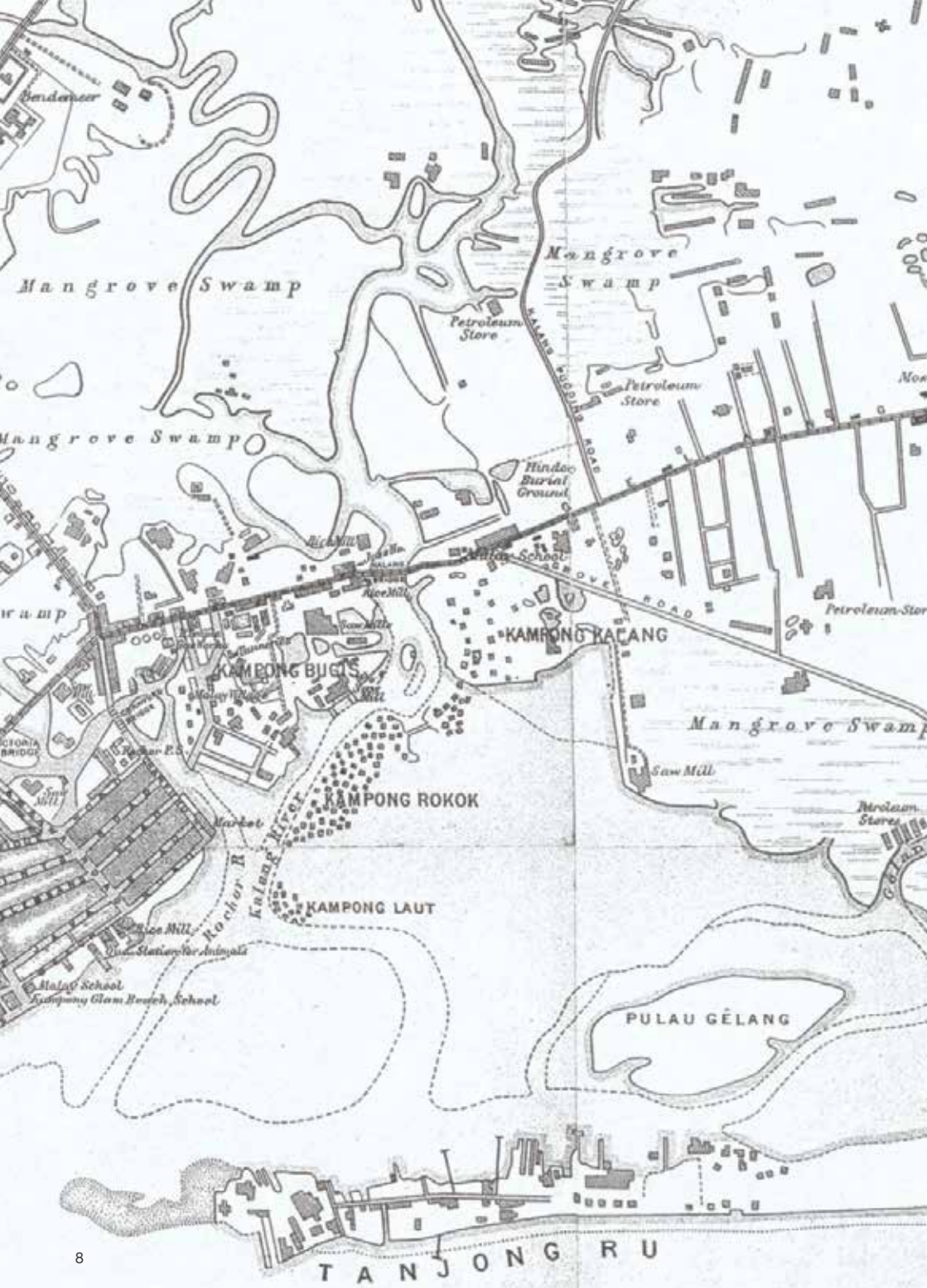
It was also associated with numerous ponds as well as the fish and prawn farms. More importantly, it known for the strong community ties between the local residents, St Andrew's School, and The Diocese of Singapore.



Bishan and Braddell

Originally part of a rural landscape, these estates were primarily rubber plantations and kampong settlements before urban redevelopment project in the 1970s transformed them into modern residential towns. Bishan New Town was developed on the site of a former cemetery.

Braddell Road, named after the first Attorney-General of the Straits Settlement – Thomas Braddell, became a key arterial route connecting different parts of Singapore.



KALLANG BASIN

A FORGOTTEN PAST

How did the Kallang River get its name? The waterway is likely named after the Orang Biduanda Kallang, who are believed to be the earliest inhabitants of the river.

The name goes quite far back in history – *Kelang R.* appears in the 1839 map of Singapore prepared by Irish surveyor and pioneer colonial architect, George Drumgoole Coleman or G. D. Coleman.



Map of the town and environs of Singapore from an actual survey by G.D. Coleman, 1839.



Orang Laut (sea people) in their houseboats known as sampans panjang (long boats).

The Sea People of Kallang River

Originally from Daik in the Riau-Lingga Archipelago and Bangka Island, Indonesia,¹ the Orang Biduanda Kallang people are part of the Orang Laut (sea people) community.

Known as sea nomads or sea gypsies, Orang Laut were valued by Malay rulers of old for their skills in collecting sea produce such as tortoiseshell or pearls for international trade; guiding traders to Malay entrepôts; and as a naval force.²

Some groups of Orang Laut lived in Singapore as early as the 14th century. This was documented by Chinese explorer Wang Dayuan in his 1350 book *Description of the Barbarians of the Isles in Brief* or (岛夷志略).

1. Brenda Man Qing Ong and Francesco Perono Cacciafoco, "Singapore's Forgotten Stories: The Orang Kallang Tribe of Kallang River," *Humans* 2, no. 3 (14 September 2022): 141, <https://doi.org/10.3390/humans2030009>.
2. Leonard Y. Andaya, "The Orang Laut and the Negara Selat (Realm of the Straits)," in *1819 & Before*, ed. Chong Guan Kwa (ISEAS–Yusof Ishak Institute Singapore, 2021), 49, <https://doi.org/10.1355/9789814951425-008>.

Early Life Along the Basin

The Orang Biduanda Kallang were not believed to be nomadic and spent most of their days in houseboats near the mangrove forests at Kallang Basin. Some of them also had homes on land.

They were involved in water-based occupations such as fishing; harvesting mangrove wood as fuel; collecting *nipah* leaves for roofing attap houses; and working in the *nipah* leaf cigarettes cottage industry.

It is believed that they were one of several other groups of Orang Laut such as the Orang Seletar, who lived in the northern coastal areas near the Johor Straits, and the Orang Gelam who lived near the mouth of the Singapore River.



Life in Houseboats.

Arrival of the British

When the British arrived in 1819, there were about 500 Orang Biduanda Kallang living along the Kallang Basin. They were the largest group of Orang Laut in Singapore at the time and played an important role in the regional trade at the Kallang River by guiding trading vessels into the basin.

The British were keen to develop the tin-mining and rubber industries as pillars of the colonial economy, and also introduced steamships and new sea charts to the region.³ Over time, they became displeased with the Malay rulers and the Orang Laut's "interference" in trade activities.

Temenggong Abdul Rahman⁴ relocated most of the Orang Biduanda Kallang to Johor shortly after the British arrived.

However, some remained in Singapore and settled in villages such as Kampong Rokok and Kampong Kuchan (Kuchai), located further north of the Kallang Basin. They also lived in Kampong Melayu (Jalan Eunus).



Orang Laut of Pulau Brani in front of their houses on stilts.

3. Andaya, *The Orang Laut and the Negara Selat (Realm of the Straits)*, 522.

4. Temenggong is a high-ranking official in a Malay state. Temenggong Abdul Rahman governed Singapura before the arrival of the British.

MEMORIES OF THE RIVER

“They embraced a rhythm of life that was very connected to nature. The sea was not a barrier but a way to connect with people.”



Mr Mohamed Shahrom Bin Mohd Taha, Descendant of the Orang Laut

For as long as he can remember, teacher Mr Mohamed Shahrom Bin Mohd Taha has always known about his family’s connection to the Orang Biduanda Kallang. His paternal grandmother was Orang Biduanda Kallang, and his grandfather was Orang Bintan.

His great-grandparents were boatbuilders but also worked in the *nipah* leaf cigarettes cottage industry. In the past, the Suku Laut (sea tribe) called the Riau Archipelago home.

“Singapore was one of many places my ancestors considered ‘home’, just as they considered the Bintan, Bengkalis, or Gallang islands home. My grandmother has always mentioned that they have been here for a long, long time, even before the British.”

As a child, he would hear stories about the Orang Laut and their way of life from his grandmother. For example, she told him about a *buaya putih* or white crocodile that protected the Kallang River; the Orang Biduanda Kallang would make offerings to it and even ask for favours from time to time.

Shahrom recalls, “Even as a kid, I felt that my grandmother’s stories seemed too far-fetched to be true. She would say that Orang Biduanda Kallang could hold their breaths underwater for minutes on end when diving for fish. Or, that they could walk on the seabed and always knew where to find a specific catch.”

Only much later, when he learnt more about coastal communities such as the Bajau people,⁵ that he realised there could be some truth to the stories. He shared,

“My grandmother knew different mantras for going out to sea, for finding a good catch, for seeking protection, and so on. She was a teacher and a medicine woman too. When I had fever, she would rub *sireh*⁶ on me and say a cleansing mantra before asking me to jump in the sea.”

Many traditions and practices faded with time when the Orang Biduanda Kallang and other groups of Orang Laut adopted Islamic teaching.

“Mainstream education has erased much of the cultural transmission of the old ways.”

But Shahrom still feels a strong connection to the past, especially the Orang Biduanda Kallang’s relationship and reverence for the sea.

“They embraced a rhythm of life that was very connected to nature. The sea is not a barrier but a way to connect with people. It would be nice to revive this open, flexible connection with the water through the rejuvenation of the Kallang River.”

5. The Bajau people are sea gypsies or sea nomads and have lived off the coasts of Malaysia, Indonesia, and the Philippines for centuries.

6. Sireh or betel nut leaf is believed to have medicinal properties.

A 17th Century Port City

From the late 16th to 17th century, Singapore was a nautical power in the Malay Sultanate.

Looking at the peaceful waters now, it may be difficult to imagine that the Kallang estuary, encompassing the gateway to modern Singapore and Kallang River, was once the site of a thriving port city known as Singapura and later, Temasek.

Before Bukit Larangan (Forbidden Hill) became Government Hill and Fort Canning Hill for the British, it was probably the residence of the 14th-century rulers or wealthy inhabitants of Temasek.

Some of the artefacts uncovered in archeological excavations near the foot of Fort Canning included gold ornaments and coins as well as Chinese porcelain. These discoveries suggest that there was trading activity near the Singapore River long before the British arrived.



Ming trade with Singapura as shahbandariah for Johor sultanate. Circa 17th century, Kallang estuary, Singapore.



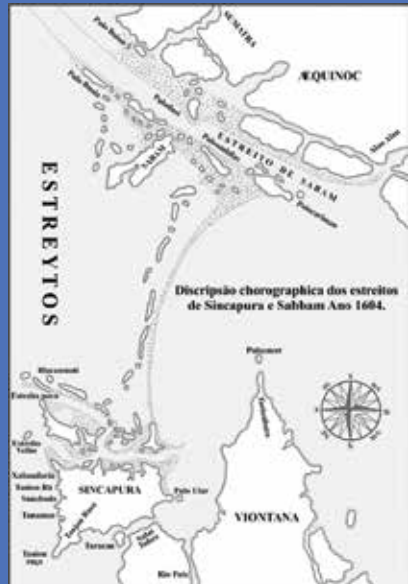
Javanese-style gold jewellery found at Bukit Larangan.

Guardian of the Basin

It is believed that there was a *shabandar* or harbour master stationed near the Kallang Basin in a settlement called Sabandaría. Appointed by the Malay royals, he oversaw the bustling trade activity at the basin and acted as an intermediary between local rulers as well as the British and the Dutch.

Regarded as the “Lord of the Harbour”, the *shabandar* protected commercial trading vessels that made their way to the Kallang River.

Manuel Godinho de Erédia's "Description of Melaka" (c.1604), redrawn by Ms Lee Li Kheng, GIS and Map Resource Unit, Department of Geography, National University of Singapore.
© Peter Borschberg



THE BIRTH OF A COLONY

When Sir Stamford Raffles arrived in Singapore, he made an agreement with Temenggong Abdul Rahman and Sultan Hussein Shah to allow the East India Company (EIC) to become the governing body of Singapore. The EIC governed the settlement from 1819 to 1858 until the British government took control of the colony from 1858 to 1867.



Map of the town and environs of Singapore. Drawn by J.B. Tassin from an actual survey by G.D. Coleman, 1836

A Free Port

The arrival of the British attracted a swift influx of people from different parts of the region. After Raffles declared Singapore a free port in 1822, the announcement further accelerated the arrival of immigrants seeking opportunities.

The rapid growth of maritime commerce led the British to develop areas such as the Keppel Harbour as early as the 1850s.

New Settlers in the British Colony

The new settlers changed the landscape and the composition of the communities at the Kallang Basin. In the early days of the settlement, the areas around Kallang Basin were characterised by large swathes of swampland, with small islands such as Pulau Senoyong and Pulau Senang in the centre of the Basin.



View of Kampong Bugis in the 19th century.

The Bugis

Among the first groups to arrive after the British were the Bugis people. The Bugis Chief Arung Bilawa led about 500 Bugis people with him to the settlement. Hailing from Sulawesi, Indonesia, the Bugis were skilled seafaring people who played an important role in Singapore's growth as a trading centre.

The Bugis traded in places such as the Philippines, New Guinea, Australia, the Middle East, and even Madagascar before the Europeans did.

The Kallang Basin was part of an important transportation route for the Bugis. They would make a stopover in Singapore en route to the West to sell items in demand from Chinese merchants such as sarongs and spices. Meanwhile, they brought goods such as Chinese silk, earthenware, cotton, and tin to Madagascar.⁷

Fierce mercenaries, the Bugis also competed with the Dutch to dominate the spice trade.

In Singapore, the traders settled down in an area north of the Rochor River known as Kampong Bugis. Some settled in nearby Kampong Gelam where the Malay aristocracy, Arabs, Javanese, and Boyanese resided.

Early Immigrants

Although there were already Chinese settlers in Temasek before the British arrived, the new settlement attracted many new groups from China seeking work and business opportunities.

They found work in rice fields, fruit plantations, as well as brick kilns, boatyards, and sawmills located around Kallang Basin.

The British brought groups of Indian labourers from nearby settlements when they arrived in 1819. These labourers helped to clear land for commercial agriculture and built infrastructure such as roads and buildings.

⁷ Ibrahim Ariff, *The Bugis in Singapore* (Ibrahim Ariff, 2017), 24–25.

LIFE ALONG THE RIVER

The growth of industries such as farms, brick kilns and sawmills point to the locations of early settlements along the Kallang River.



Kampong dwellings around the Kallang Basin.



View of Kampong Bugis circa 1900.

1 Kampong Bugis

Kampong Bugis was a sizeable village located between the Rochor River and Kallang River. It comprised many attap houses that were built on stilts to keep rising waters and animals away.

It was home to the Bugis people who arrived from Sulawesi in the 1820s. While the early settlers were mostly traders or shipbuilders, Indian workers from the nearby Kallang Gasworks also settled in Kampong Bugis.



Waterside houses at Kampong Kallang.

2 Kampong Kallang

The village was home to Malay fishermen who were some of the early dwellers of the settlement. This was a coastal fishing village near Beach Road.

3 Kampong Kuchan (Kuchai)

This “water village” was made up of houses built on stilts along the Kallang River. It was home to the Orang Biduanda Kallang as well as the Orang Gelam who used to live along the Singapore River. There was also a group of residents that came from a former kampong in Tanjong Rhu.

4 Kampong Soo Poo

Located close to Kampong Bugis, Kampong Soo Poo was the name of the village and a road. The area was popular with the Boyanese from Indonesia. In the 1970s, most residents of Kampong Soo Poo were resettled in Toa Payoh when the Kallang Industrial Estate was built.

5 Kampong Boyan

Home to migrants from Bawean Island, Indonesia, this “Baweanese Village” was one of the key settlements in Singapore during the colonial era. Like many immigrants, the Baweanese (Boyanese) were drawn to Singapore’s thriving colonial port. They contributed to the transport and agricultural industry and many took up roles as horse handlers, carriage drivers, and labourers.

The *pondok* system was key to their way of life and refers to communal housing that provided shared resources and support for new migrants.

6 Kampong Rokok

Located off Geylang Road near the Kallang Bridge, this settlement was home to the Orang Laut and the boatmen who worked at the shipyards of Tanjong Rhu. There was also a cottage industry for *nipah* leaf cigarettes here. The Malay word rokok means cigarettes. The villagers were resettled in Eunos when the Kallang Basin was reclaimed to build the former Kallang Airport.

EARLY INDUSTRIES ALONG THE RIVER

Many of the early industries along the Kallang River were connected to regional trade activities at the Kallang Basin.

Lighters on the Water

Small vessels such as *tongkangs* or *twakows* were an important part of Singapore's maritime history. From the 1880s to the 1950s, these flat-bottomed cargo boats or lighters were ubiquitous along the Kallang River. *Tongkang* is the Malay name and *twakow* is the Chinese name for lighter.

Used as trading vessels between Singapore and nearby places in Indonesia, Johor, and Malacca, *tongkangs* were favoured for their speed. They were an efficient form of sea transport that could easily navigate waterways too shallow for ships.

Derived from the Malay word *belongkang* meaning river cargo boat, *tongkangs* were

a familiar sight along the Kallang River until the 1950s. They were indispensable for ferrying raw materials such as rubber to factories to be processed and re-exported.⁸

For example, it was common to see *tongkangs* towing logs into the Kallang Basin, where they would float in the water until the sawmills needed them.

The "timber tongkang" was a type of barge built to transport heavy logs from Indonesia, and the "Singapore Trader" was the name for a type of barge for transporting non-perishable goods such as coal and wood.⁹



Lighterman unloading goods from a tongkang.

8. Tong Dow Ngiam, "Tongkangs - the Passage of a Hybrid Ship," in *Maritime Heritage of Singapore*, by Tai Yong Tan (Suntree Media, 2005), 14.

9. Ngiam, 14.

Boat Repair and Boatbuilding

Many boatbuilders and repair shacks occupied the banks of the Kallang River. The wooden boatyards mainly specialised in *tongkangs*.

During Singapore's pre-independence period, after the Merdeka Bridge was built, *tongkangs* could no longer sail up

the Kallang River, and were moved to the anchorage in Tanjong Rhu.

In 1822, Captain William Flint, Singapore's first master attendant, had already established a shipyard in Tanjong Rhu for boat repair and boatbuilding activities.



A twakow ferrying goods, 1969.



A ship repairer working at Kallang River, 1950s.



Chinese boatbuilding yard, 1904.

19th Century Commercial Plantations

Long before the British arrived, Chinese settlers were already cultivating cash crops such as rice and gambier on the island. Over time, commercial plantations for sugarcane, coconut, pineapple, betel vine (*sireh*), and cotton also took root.

G. D. Coleman's topographical survey and 1836 map of Singapore depicts large swathes of land used for agriculture in the eastern side of Kallang River.



Location of some early commercial plantations along the Kallang River.

Sago Factories

As early as 1834, sago became a staple export for Singapore. Derived from the stems of a tropical palm, sago was harvested to produce sago flour.

In the 1850s, there were about 30 sago factories in Singapore with the combined output of 8,000 tons of flour annually.

There were sago plantations in Tanjong Rusa or the Changi district. Meanwhile, sago factories were located close to waterways because of the need for water in sago processing.



A sago factory.

From Bricks to Timber

As the settlement grew to accommodate new arrivals, the British government mandated the use of permanent construction materials to build the city in 1822. Brick kilns and sawmills represented the early beginnings of industrialisation in Singapore.

From the 1830s to the 1850s, small-scale brickyards sprung up in the Rochor-Kallang area because raw material was easily available from abundant mudflats and sand in the Kallang estuary.



Remains of an old brick kiln near Kampong Bugis.



Timber yard at Kallang.

“Sar Kong” Village

Many Chinese settlers who worked in brick kilns lived in a kampong known as *sar kong*, which means “sand dune” in Cantonese. The village was closely connected with the Mun San Fook Tuck Chee Temple (万山福德祠), which was established in 1861. It is one of the oldest Cantonese temples in Singapore.

Located at the junction of Lorong 17 Geylang and Sims Drive, the temple was more than a place of worship for the working-class villagers in the early days.



Bringing the community together.



Mun San Fook Tuck Chee Temple at Lorong 17 Geylang.

It was also pivotal in providing shelter to new immigrants and helping them to settle in when they first arrived in Singapore. In addition to establishing the former Mong Yang Chinese School, the temple also set up the Sar Kong Athletic Association for the community.

More importantly, the temple is a key landmark that connects the present to the rich history of the area. Stories of the old village are memorialised in the Sar Kong Heritage room.

The Rubber Industry

Although rubber plants from Indonesia arrived in Singapore as early as 1819, the industry did not take off until 1877, when Singapore received 22 rubber plants from the Kew Gardens. About 12 of these were planted in the Singapore Botanic Gardens.

Henry Nicholas Ridley, the first director of the Singapore Botanic Gardens, had a strong belief in the potential commercial viability of rubber. He conducted extensive studies on the best way to harvest latex from trees without damaging them.

Roots of a Major Cash Crop

Rubber eventually became a major cash crop of the region in the 1900s and the Botanic Gardens was the principal source of seed.

There were rubber plantations in the early years, but Singapore did not have the land area to become a global producer. However, rubber packing and rubber milling became important industries here. The former premises of the Lee Rubber Factory is at the present site of Kallang Distripark today, within the Kallang Basin area.

FIRE CITY: KALLANG GASWORKS

When it began operations in 1862, the Kallang Gasworks changed the skyline of the Kallang Basin and brought about a new era to the settlement. It was the largest gasworks in Southeast Asia at the time.

Inhabitants of the colony saw the streets in a new light. For the first time, there was street lighting.

Built by the Singapore Gas Company, the gasworks manufactured gas from coal supplied by neighbouring countries. They were delivered by *tongkangs* to the facility.



Machine room at Kallang Gasworks.

Kallang Gasworks, 1963.





Gasholder Number 3. The steel structures were shipped from the United Kingdom.

Fuelling Industries and Homes

By 1901, the facility began supplying gas to serve the needs of various industrial and commercial uses in the developing economy.

In addition, the Kallang Gasworks also produced fuel for household activities such as cooking or heating, helping to improve the daily lives of ordinary folk.

Despite the convenience that the gasworks brought to Singapore, residents lived in constant fear that the facility would explode. The distinctive gas smell is one of the things that people remember the most.

Chinese residents nicknamed the Kallang Gasworks “Huo Cheng (火城)” or *Huay Sua* (Hokkien), which means Fire City, where GURKhas provided security round the clock.

Later, coal was eventually passed over for fuel oil, which indirectly impacted the *tongkang* industry because they were no longer needed to transport coal. Naphtha replaced fuel oil in 1966 and the Kallang Gasworks continued to provide 70 per cent of what Singaporeans needed until the 1980s.

End of an Era

The Kallang Gasworks ceased operations in 1998 when Senoko Gasworks was completed in 1997.

The supporting pillars and girders of Gasholder Number 3 serve as a reminder of the unique heritage of the area. Park users taking a stroll along the plaza at the Kallang Riverside Park can view the steel structure of the once iconic gasworks.



Formed in London in 1837, C & W Walker were specialist providers in the gas, chemical, and construction industries.

SRI MANMATHA KARUNESHVARAR TEMPLE



Sri Manmatha Karuneshvarar Temple at the junction of Kallang Road and Kampong Bugis, Singapore.

A Prayer for Protection

Many of the Hindu workers who worked at the Kallang Gasworks were essentially from South India. There were many Hindus near the Kallang area as well as in the Serangoon and Tanjong Pagar areas; the workers who lived in Kampong Bugis did so to be near their place of work.

Far from home, the workers would offer daily prayers to Lord Shiva to seek solace and protection. It was a foreman at the gasworks – Mr A.V. Irullappa Pillay who helped to provide a shrine at the facility for the workers, so the workers could sustain their Hindu traditions and values.



Sri Manmatha Karuneshvarar Temple remains important to Hindu devotees today.

Reconstructing the Kallang Gasworks

In 1888, the workers got together to build a structure to house the shrine at 226 Kallang Road. The Sri Manmatha Karuneshvarar Temple became known as Kallang Gasworks Sivan Temple.

The group of people managing the temple ran into financial difficulty when they were building a concrete *mandapam* (main hall) in 1909. The sons of Mr Koona Veloo Pillay, one of the Indian pioneers in Singapore, decided to step in.

The two brothers, Mr V. Pakirisamy Pillai and Mr V. Narayanasamy Pillai funded the reconstruction of the temple from 1935 to 1937, and dedicated it to their late father's memory.

Over time, the family-run temple became much more than a place of worship for the workers. Built for the community and the betterment of society, it opened its doors to any worker in search of shelter or refuge.

A TEMPLE FOR THE COMMUNITY

“In the past, the Kallang River was very significant to devotees of the temple.”



Mr Ashok Kumar, Temple Trustee of Sri Manmatha Karuneshvarar Temple

After the Kallang Gasworks was dismantled in 1998 and the last residents of Kampong Bugis moved elsewhere, the devotees of the Sri Manmatha Karuneshvarar Temple or Kallang Gasworks Sivan Temple continued to return.

Mr Ashok Kumar is one of the four trustees of the Sri Manmatha Karuneshvarar Temple. His grandfather, Mr V. Narayanasamy Pillai and granduncle, Mr V. Pakirisamy Pillai were the philanthropists who set up a charitable trust, and rebuilt the Temple for devotees between 1935 and 1937.

He observes that it is mainly local Singaporean Hindus who come to the temple these days. Many are from the old kampong and some even bring their children or grandchildren to worship here.

Mr Kumar says, “The temple may be old and small, but it has a unique, old-school charm that our devotees really like. I think this is largely because it has a very clear focus as a house of worship for Lord Shiva. Our ceremonies and rituals are carried out in a classical and traditional way.”

Over the years, the building itself has also remained relatively unchanged.

Mr Kumar says, “To my knowledge, it was essentially built according to South Indian tradition but with some local influence. We have what looks like Arab-inspired minarets and pillar carvings. Perhaps it has something to do with the history of the area since working-class Hindus from the gasworks lived in Kampong Bugis with the shipbuilders and traders.”

In the past, the Kallang River was very significant to devotees of the temple.

“Back in the day, I was told that devotees used to bathe in the river as part of certain rituals during Hindu festivals. Of course, we cannot do such things anymore. We have explained to the devotees that the river is a reservoir for fresh water now.” Mr Kumar says.



Prayers conducted at the temple in the old days.

RIVER RECLAMATION: OLD KALLANG AIRPORT

Old Landing Strip

Rapid industrialisation around Kallang Basin coincided with the development of modern infrastructure in the area to support the growth and development of the city.

Before the Kallang Airport or Kallang Aerodrome was built, planes used to land at the old race course (now Farrer Park) and on Balestier Plains. It was British Governor Sir Cecil Clementi who mooted the idea for a civilian airport to be built.



Reclamation of the Basin

To facilitate the construction of Singapore's first civilian airport, the colonial government ordered a reclamation project for the Kallang Basin in 1931. Aside from its proximity to the city centre, the Kallang Basin was ideal because its location allowed for a free aerial approach for both landplanes and seaplanes.

The work was carried out by the Public Works Department from 1932 to 1936. Reclamation of the Kallang Basin involved the labour of 400 coolies and the movement

of 200,000 tons of rock and earth. After it was built, the Kallang Airport was considered the best airport in the region. On her visit to Singapore in 1937, famed American aviator Amelia Earhart called it "an aviation miracle of the East".

Part of the airport was built over the former Kampong Rokok, a Malay village located at the basin. It was where some Orang Laut and boatmen working in the shipyards of Tanjong Rhu used to live.

Architect: Frank Dorrington Ward
Organisation: Public Works Department
Year: 1937
Status: Conserved in 2008





Map of the Singapore Civil Airport (Kallang Airport) airfield.



Lounge inside Kallang Airport.



Inside the control tower at Kallang Airport.



Kallang Airport Terminal Building, 1950.

A Landing for Seaplanes

Besides a circular aerodrome that allowed planes to land from any direction, the airport had an anchorage area at the perimeter with a slipway that provided access to seaplanes such as the Singapore III, Short Sunderland, and Flying Boats landing in the Kallang River. Developed for the Royal Air Force in the 1930s, the Singapore III served as maritime patrol craft during World War II.



Seaplane at Kallang River, off Kallang Airport.

Closure of Kallang Airport

The airfield's grass runway was replaced with concrete during the Japanese Occupation. After the war, the Department of Civil Aviation repaired the runway and the airport resumed operations.¹⁰

But by the 1950s, it was struggling to cope with the increase in air traffic. It was also unable to accommodate larger and heavier commercial planes. Kallang Airport ceased civil airport functions and was closed in 1955.

Parts of the airport were demolished for redevelopment and the old runway became Old Airport Road. The new Singapore International Airport or Paya Lebar Airport replaced Kallang Airport and began operations in 1955.

However, the airport building with its iconic control tower continued to be used by People's Association. The auxiliary buildings and some structures were utilised by various groups, including the Singapore Youth Sports Council, People's Association, Public Works Department, the Central Manpower Base, and Kallang Outpatient Clinic.

The main terminal of the old Kallang Airport, east and west blocks, and the main hangar are conserved buildings.

Original finishes in the main terminal were rediscovered by Singapore Land Authority during recent works.



Interior of the old Kallang Airport.



View of the departure hall at the old Kallang Airport.

10. "When Kallang Was a Swamp" *The Singapore Free Press*, December 9, 1950, <https://eresources.nlb.gov.sg/newspapers/digitised/article/freepress19501209-1.2.107>

Wonderland Amusement Park

With the opening of the Wonderland Amusement Park, the spacious grounds of the Kallang Basin became the site for new entertainment for the masses.

Built on the site of the old Kallang Airport, the Wonderland Amusement Park grew in popularity when the public gradually lost interest in entertainment venues such as Happy World and Great World Amusement Park.

Nightclubs, discos, shopping centres, and forms of broadcast entertainment (television and radios) gave the public new avenues of entertainment.¹¹



Wonderland Amusement Park at Kallang Park.

Besides park rides, the Wonderland Amusement Park also hosted trade events and celebrations such as Lantern Festival.¹¹

Protecting our Waters



Marine police on patrol in 1960s.

The Police Coast Guards (PCGs), previously known as the Marine Police,¹² were the “modern guardians” stationed at the Kallang Basin in the 1980s. Before the Marina Barrage came about in 2008, the police coast guards protected the estuary where it meets the open sea, as the *shabandar* did in the 17th century.

As the estuary was near the Central Business District and Pulau Bukom (Shell Oil Refinery), PCGs were stationed there to look out for illegal immigrants trying to enter Singapore via the Kallang Basin.

11. Gayathiri Chandramohan, “Theme Parks in Singapore,” Roots, accessed 6 January 2025, <https://www.roots.gov.sg/stories-landing/stories/themeparks-in-singapore/story>.

12. Domic Dass and Muhammad Ridzuan, “Police Coast Guard: Making Waves, Then and Now!,” Singapore Police Force, 26 January 2023, <http://www.police.gov.sg/Media-Room/Police-Life/2022/11/Police-Coast-Guard-Making-Waves-Then-and-Now>.

The Merdeka Bridge

The Merdeka Bridge is a historic site that spans the Kallang Basin and became a symbol of Independence for Singapore and the initial succession from the British. *Merdeka* is a Malay word that means “independence”.

During the 1950s, the congestion at the junction of Kallang Road, Geylang Road, and Mountbatten Road created bottlenecks during peak hours.

To alleviate the problem, the Kallang Basin Development Committee proposed building a coastal road and a bridge as an alternative connection between the city centre and eastern region. The bridge was initially named Kallang Bridge.

But Francis Thomas, the Minister for Communications and Works, renamed it to reflect the confidence and aspirations of the nation on the cusp of independence.

A pair of stone sculptures depicting crouching and roaring lions was situated at each end of the bridge. With their heads turned to face the traffic, the Merdeka Lions became icons of a new era. The statues spent some time at Stadium Walk before being moved to SAFTI Military Institute at Upper Jurong Road when Nicoll Highway was being widened.

*Drive past during the opening of
Merdeka Bridge and Nicoll Highway by
Chief Minister Lim Yew Hock.*



The National Stadium

Besides the Kallang Airport, the National Stadium was an important monument that evoked a sense of national identity and pride among Singaporeans.

Built in 1970, the National Stadium was where the Kallang Wave was born. It unified Singaporeans through sports events and hosted 18 National Day Parades before it was demolished in 2009.



Aerial view of the National Stadium.

Singapore Constitution Exposition



Entrance to the Singapore Constitution Exposition at the old Kallang Airport.

The end of the 1950s was a momentous period for Singapore. A series of “Merdeka talks” were held in London to end the city’s status as a crown colony and led to the State of Singapore Act on 1 August 1958. The new Constitution of Singapore would provide for a 51-member legislature.

The Singapore Constitution Exposition organised by the Chinese Chamber of



Kallang Park Fountain represented the nation’s aspirations.

Commerce in 1959 was a celebration to commemorate partial internal self-government.

About 10 ha of land, including the former runway of the former Kallang Airport, was dedicated to the month-long event. Some of the events included sports and cultural performances, and a beauty pageant.



Chwee Kang Beo

Kallang Industrial Estate

KOLAM AYER AND BOON KENG

WALKING ON AIR



Swamp areas along Sungei Whampoa and the Kallang River.

The name Kolam Ayer comes from the phrase *Kolam Air*, which translates to “pond water” or “pool of water” in Malay.

Coursing through Kolam Ayer is Sungei Whampoa and the Kallang River. Back then, the boat-dwelling Orang Laut lived along the mangrove-lined waterways, and eked out a living fishing and collecting *nipah* palm leaves to sell.

In the early 1800s, Kolam Ayer was nothing but swampland filled with mudflats and sand. By the late 19th century, early industries such as brick kilns, sawmills, rubber processing, farming, and so on changed the landscape.

Kayakers along the river at Kolam Ayer.



Lee Rubber Company

Lee Rubber was one of the biggest rubber planters and manufacturers in Southeast Asia in the 19th century. Their premises at Lorong 3 Geylang was a self-contained, mini-industrial park with a factory, warehouse, smokehouse, training centre, research laboratory, and workers' lodging.

The location of the factory near the Kallang River made it possible for the factory to have a small jetty near the facility to receive raw rubber transported by *tongkangs* to the factory for processing.

There was also a large pond in the facility for storing water used in processing natural rubber. The water was piped from groundwater further upriver in Potong Pasir because the water in the river was too brackish and polluted to be of any good.



Large pond in the factory that was once used for storing water for processing natural rubber.

Mr Lye Mong Huak was among a group of management trainees recruited in 1965 by the Lee Rubber Company. After completing their training stint at the factory, the trainees were sent abroad to oversee factories in Malaysia, Thailand, and Indonesia.

The factory operated 24-hours a day and 7 days a week. Although the work at the factory floor was backbreaking and often dangerous, the company took measures to ensure the workers safety and well-being.

For example, workers processing the raw rubber would work and rest in four-hour shifts to prevent accidents caused by fatigue. There was a designated rest area within the factory where the workers could sleep.

Mr Lye remembers that beyond the factory compound was a different world. Dirty and somewhat dangerous, the neighbourhood was a mess of squatter huts where residents lived in squalor.

There were even squatter huts built in a haphazard fashion over an Indian cemetery in Lorong 3. The numerous pig farms, a tannery, and sago factory created a raw, putrid smell in the surrounding areas.



Aerial view of the Lee Rubber Factory.

It was a notorious neighbourhood where a large number of secret societies and gangs lived. Few outsiders dared venture into their territory for fear of getting beaten up or robbed. At the time, the odd-numbered lorongs from Lorong 3 to Lorong 17 were known to be the strongholds of secret societies.

However, the workers seldom had to go beyond the factory, even for meals. Mr Lye recalls that several kampong hawkers would set up stalls outside selling everything from chicken rice to fried noodles to Teochew porridge – allowing residents in the area to make a small income.



Aerial view of the Lee Rubber Factory at Lorong 3 Geylang Bahru.

An Old Kampong by the River

In the 1950s, the houses in Kampong Pulau Minyak were essentially just wooden shacks on stilts. The kampong was mostly inhabited by Chinese (Hokkiens and Teochews) and Malay residents.

In 1964, a fire devastated the kampong and residents were relocated to different areas in Singapore. New flats were built progressively in the 1970s, and some old residents of the kampong later returned to live in the area.



Fire at Kampong Pulau Minyak in 1964.

PRE-INDEPENDENCE: RE-SHAPING THE RIVER



Reclamation view of the Kallang Basin, 1963.

After World War II, Singapore was overcrowded and the economy was in shambles. Due to its reliance on trade, the economy was at the mercy of the ever-fluctuating global prices of tin and rubber.

A lack of local industry to boost the economy led to high unemployment rates and poverty. There was an urgent need to create jobs for a rapidly increasing population that was largely living in slums.

Reclamation of the Basin

From the 1960s to the 1970s, the Kallang Basin was transformed by reclamation. At the time, there was a development project to turn Toa Payoh into a satellite town; sand from the area was used for the reclamation works.

Approximately 400 ha of land was created to build housing and to support the growth of light industries.

Industrial Development in Pre-Independence Era

In 1957, the Singapore Industrial Promotion Board (SIPB) was set up to enable the government to finance, develop, and create industrial projects. However, it failed to make significant impact as it only provided small loans to industry operators.¹

It was replaced in 1961 by the Economic Development Board (EDB), which set out to take over the functions of the SIPB and create sustainable economic growth, job opportunities, and businesses.

With a larger remit, the EDB began developing the necessary infrastructure for rapid industrialisation.

1. "New board will have \$100 m. for lending." April 4, 1961. The Straits Times, p. 5. Retrieved from NewspaperSG. <https://eresources.nlb.gov.sg/newspapers/digitised/article/straitstimes19610404-1.2.60>

Kallang Industrial Estate

The Kallang Industrial Estate was the second largest industrial park built in Singapore after the Jurong Industrial Park. The light and medium industries that emerged changed the landscape of the Kallang Basin.

Housed in tidy flatted factories were companies producing garments, electronic parts, and toys. Renowned multinational companies such as the Blue Box Factory, Texas Instruments, and General Electric established their presence in the non-descript estate.

More importantly, these manufacturing companies were able to provide large volumes of low-skilled jobs for a growing number of school-leavers each year.

The new estate was also meant to provide housing for 100,000 people, which was about 5% of the population in Singapore at the time.

A New Work Order

Unlike casual workers and labourers in the colonial days, industrial workers had regular work and regular work hours.

This shift to industrialisation impacted the traditional role of women in society.

Due to increased job opportunities, many women joined the workforce. Not only were they able to contribute to their family's household incomes, female workers also played a key role in helping to mitigate labour shortages.

Women were often the preferred choice in certain industries, for example, electronics, garment and textiles.



Kallang Basin Industrial Estate with semiconductor and electronics factories, most operating on a 24-hour basis.

The industrial estate's proximity to housing also meant that women were able to meet the domestic demands of household chores and child-rearing, while holding full-time or part-time employment.



Female operators at work at an electronics factory.

RIVERINE TEMPLE: CHWEE KANG BEO

Chwee Kang Beo is a rare riverine temple built in the 1940s after World War II. The original wooden structure stood on stilts at the edge of the Kallang River.

In Hokkien, *chwee kang* means “water river” and *beo* means “temple”.

Over the years, the temple underwent several renovations before it moved to its current location at 801 Upper Boon Keng Road.



Chwee Kang Beo Temple was rebuilt on land beside Kallang River (801 Upper Boon Keng Road) in 1993, and officially reopened in 1999.

The River God

The temple was founded by four residents of the former Kampong Pulau Minyak: Ong Sek Tong, Lee Zai Seng, Teoh Ji Kui, and Sng Pi Soon. According to the caretaker, a shaman had a vision of the river deity, *San Jiang Tua Po Kong*, asking for a temple to be built on the river. To date, it is the only temple in Singapore dedicated to *Tua Po Kong* – not to be confused with *Tua Pek Kong*.

At the time, there was also a sense of unease among residents in the nearby kampong because they often heard dogs howling late into the night. During the Japanese Occupation, older residents had reportedly

seen bodies of casualties of war floating down the river. There were also rumours that skeletal remains were found during piling works for HDB flats in the 1970s. Many residents felt that the Chwee Kang Beo Temple helped to restore a sense of peace in the area.

When the temple was first built, it was designed to face the mouth of the river. But when it was reconstructed, it was built such that the deity faced the source of the river. The caretaker explained this was to allow the deity to “see farther” into the horizon.

Chwee Kang Beo photo taken in 1987 from an earlier vantage point along the river.



A LIFELONG CONNECTION TO THE RIVER

“These days, people from the old Kampong Pulau Minyak still return to the temple.”



**Mr Sun Jinping,
Caretaker, Chwee Kang
Beo Temple**

Mr Sun Jinping or Uncle Peng has been a caretaker at Chwee Kang Beo for 21 years. Born in Kampong Pulau Minyak, he has seen the river evolve and change over the decades.

His close connection to the temple began even before he was born. Uncle Peng’s father was Mr Sng Pi Soon – a co-founder of the temple. He came to Singapore and started a boatbuilding and boat repair business for *tongkangs* and *twakows* along the banks of the Kallang River.

Smaller vessels were indispensable for ferrying raw materials for various industries along the river. There were about four boatbuilding and boat repair business in the vicinity then.

Uncle Peng’s family either rented or bought their home from a *Nonya*¹ landlord in 1959. At the time, Teochews, Hokkiens, Malays, and Indians occupied different areas of the kampong. He recalls how the river that flowed beneath the stilt houses sometimes flooded their homes.

“The water was very muddy. When they were cleaning the river, they had to dig up the swamp mud.”

Uncle Peng remembers swimming in the river. Most of the villagers could swim at the time. Since they lived so close to the water, swimming was definitely a survival skill.

He says, “There was a Geylang Bridge that connected both sides of the river. Chwee Kang Beo was at *Mang Ga Kah*² and on the opposite bank was a temple dedicated to *Tua Pek Kong*. People believed that a white crocodile lived under that temple.”

The demand for boats could have waned after the Tanjong Pagar container port was built in 1969 and Uncle Peng’s father eventually shut down his business. Uncle Peng did not work for his father but had a job at a sawmill near Dakota.

These days, people from the old Kampong Pulau Minyak still return to the temple.

He says, “But most of the old ones have passed on, and the younger ones are not interested in coming here. I was only 12 years old when they built the temple, and now, I am already 78 years old. Maybe I am the only one who is still attached to this temple.”

2. *Nonya* (or *Nyonya*) is a Malay word that refers to a Peranakan woman of mixed Chinese and Malay, or other mixed ethnicity.

3. *Mang Ga Kah* is a Hokkien name that could be a reference to the mangrove forests in the area. However, it could also be Hokkien for ‘jackfruit’ or ‘mosquito bites leg’.



National Aerated Water Company

Sim Choon Huat Temple

MOONSTONE LANE ESTATE

UNPOLISHED GEM ALONG THE RIVER

Flanked by expressways, major roads, and the Kallang River, Moonstone Lane Estate seems relatively obscure. It is an interesting node to discover, with old shophouses and a rich multicultural history reflected in the landmarks in and around the estate.

The area is surrounded by roads named after precious stones – from Ruby Lane to Opal Crescent to Topaz Road.

It is not clear what inspired the municipal council members or commissioners to name the roads here after gemstones. But it could be related to the occupations or trades of people who lived there at the time.

Before it was known as Moonstone Lane Estate, this area was Woodsville Estate in the 1890s.

Mr Pana Abdul Marican, a businessman from Penang bought land in the area in 1919 and the area came to be known as Kampong Marican.

Over time, it became home to a multiethnic community of Chinese, Malays, Indians, and Eurasians.

The name “Marican” is of Tamil Muslim origin and could refer to Jawi Peranakans, who are offspring of intermarriage between Indians and Malays.

Jawi Peranakans tended to be wealthy merchants and “elites” in the community. The first Malay newspaper in Singapore was the *Jawi Peranakan*. It was founded in 1876 and remained in circulation until 1895.

Moonstone Lane Estate is a triangular-shaped estate near the Kallang River.



NATIONAL AERATED WATER COMPANY

The name of this company may be less familiar than the soft drinks it produced. Sinalco and Kickapoo Joy Juice were two popular brands bottled by the National Aerated Water Company. The business was co-founded by Yap Ching Nin, Chen Sze Boo, and Tan Kah Woo. Ching Kwong Yew joined the company in 1953 when Yap passed away.

Established in 1929, the National Aerated Water Company Factory was originally located in a shophouse along Hamilton Road in Jalan Besar. The production of soda was able to continue throughout the war years because the Japanese allowed the supply of regulated sugar to the factory.

When the demand for soda grew during the post-war period, the company shifted to a larger plant along Serangoon Road in the 1950s. The new location was near

Montgomerie Bridge and situated next to the Kallang River. Fitted with new equipment, the plant was able to produce 48,000 bottles of soft drinks a day. By the 1960s, the founders were making plans to build a new overseas plant in Petaling Jaya. However, due the worldwide oil crisis in the 1970s, the factory had to close.

The former National Aerated Water Company Factory is the last remaining industrial building in the vicinity from the pre-industrial era, and a very strong identity marker for the area.

It is one of the more uniquely designed industrial landmark buildings from the 1940s to 1960s that marks an important chapter of the pioneering efforts of early industrialists.

The main building was conserved in 2018 and restored as part of URA's conditions for a condominium development on the site.

National Aerated Water Company Factory

Architect: K. K. Tan

Firm: KK Tan & Associates

Year: 1954



Photo taken before restoration works. Front view of the former National Aerated Water Company near Moonstone Lane, off Serangoon Road. The double-storey Art Deco-styled building is located beside the south bank of the Kallang River.

National Aerated Water Building (Restored)

Design Architect:
CarverHaggard Ltd

Year: 2021



Conserved building of the former National Aerated Water Company, which is integrated into a new residential development and kept fenceless along the main road and Kallang River.

Woodsville Dairy Farm

After Mr Marican passed away, his wife started a dairy farm in 1929. The Woodsville Dairy Farm was built as a state-of-the-art cow barn with milk sterilisation and bottling facilities. In the late 19th to 20th century,

dairy farms in Singapore provided the only source of fresh milk to locals. In those days, Indian milkmen would deliver milk from door-to-door.



A cattle farm in Singapore.

The Story of Bachoo Singh

When the late businessman Mr Bachoo Singh wanted to build a warehouse at 49 Moonstone Lane in the 1950s, he discovered that there was an existing grave or *keramat* of a Muslim woman on the property. The structure housing the grave can be found on a map dated 1932.

In order not to disturb the site, Mr Bachoo Singh decided to build the warehouse so that the structure would be embedded into one of the walls of the building.

The grave is believed to belong to Syarifah Zainah Alhabshi, a descendant of the Aljunied family and the relative of a renowned healer

from Penang named Habib Noh (Sayyid Mohamad bin Sayyid Ahmad Al-Habshi). He is considered one of the seven saints in Singapore and could have been a resident of Kampong Marican.



Exterior of the keramat at Moonstone Lane Estate.

Sin Choon Huat Temple



Sin Choon Huat Temple, 2024.

The area around Sin Choon Huat Temple (万里港福德祠) used to be part of a village situated on the banks of Kallang River. It was near a jetty known as Wan Li Gang (万里港) which translates to “jetty of a thousand miles”. Before the Sin Choon Huat Temple was built, there was shrine dedicated to *Tua Pek Kong* in the village.

In the old days, the devotees were mainly fisherman who would come up the river to pray at the shrine.

Mr Bachoo Singh acquired the land in 1949 from the Malayan Planters Provident Fund

Board. Despite being of the Hindu faith, he decided to build the Sin Choon Huat Temple for devotees.

According to his son Mr Bachoo Mohan Singh, the shrine was looked after by one of his father’s employees, Mr Sim Ah Tee who lived in Moonstone Lane.

Through the years, the businessman also ensured that the temple was well-maintained, funding a major renovation in 1991. He would also donate to the temple every year when the devotees celebrated the deity’s birthday.



Sin Choon Huat Temple at 17D Moonstone Lane, built and donated by Mr Bachoo Singh on 23 July 1957.

KEEPING THE FAITH IN MOONSTONE LANE

“He had a lot of respect for other religions and was always willing to embrace different beliefs and faiths.”



Mr Bachoo Mohan Singh, son of Mr Bachoo Singh, former landowner in Moonstone Lane Estate

Mr Bachoo Mohan Singh was born in Moonstone Lane Estate after World War II. Although he did not grow up in the estate, he has some interesting memories of the area.

As a school boy, he went to St Andrew’s School and would visit the estate at recess time or when he was done with his lessons for the day. He went there to observe his father, Mr Bachoo Singh at work.

“My father owned land and quite a few properties there. He was always constructing some building or other. You may notice that many of the buildings have very similar architecture. Before and during the war, he ran a gingelly oil mill, located just behind the National Aerated Water Company Factory,” says Mr Singh.

Mr Bachoo Singh also owned a large cattle shed, which he rented out to several cattle owners for many years. At the time, most of the Hindu families who lived in Moonstone Lane Estate were in the cattle herding industry.

“When I was young, I remember watching lorry-loads of cow dung being transported from the shed to be sold as fertiliser,” says Mr Singh.

His father later replaced the shed and built a rice godown, which was carefully constructed to accommodate a *keramat*.

“My father was a devout Hindu but he never showed that side of him to others. His morning ritual was to pray every morning after his shower. He had a lot of respect for other religions and was always willing to embrace different beliefs and faiths,” shared Mr Singh.

“He was careful with money and never showed off his wealth. However, my father had a generous nature, so when he was approached to build a Chinese temple for the fishermen, he was more than willing to help.”



Mr Bachoo Mohan Singh with his father at their house in Rose Lane, 1963.

ST MICHAEL'S ROAD

A Eurasian Enclave

Before it became a Eurasian enclave, the area around St Michael's Road was a huge swamp. The roads were simply named Lorong 1, 2, 3, and 4 at the time. To get into town, the residents made use of a rail car that ran along Serangoon Road.

Eventually, a resident who worked at the office of Commissioner of Land suggested that the names be changed to reflect the Catholic faith of the residents living there.²

The roads were all renamed after saints: St Francis, St George, St Lawrence, and St Wilfred. It is believed that the famed Whampoa Gardens owned by businessman Hoo Ah Kay used to be in this location.

Some of the Eurasian families that lived here were descended from the Dutch and Portuguese, and included the Nunes,

de Silvia, Struys, Eber, Hogan, and Boudewyn. There were also Chinese and Indian residents living in the estate.

Mar Thoma Syrian Church of Malabar

In 1952, the Pentecostal Church, Mar Thoma Syrian Church of Malabar was established at the end of St Michael's Road. The reserve road was named "Mar Thoma Road" by the Municipal Council.

The Church bought land in 1954 to build a school – St Thomas Secondary School – for over-aged and underprivileged students.

After the Central Expressway (CTE) was completed in 1991, it changed the landscape of the estate, creating two different enclaves.



Eurasian children with their Chinese 'Amah' (domestic servant) outside their residence at 96 St Francis Road.



Teenagers Halford Boudewyn (left) and Ralph Hoffman at end of St Michael's Road, sitting on earth moving rail tracks. Boudewyn became a Singaporean police officer and war hero who served as a spy during the Japanese Occupation.

2. Julianne Danielle Lim, "The Rich History of Church of St Michael's (1900s–1950s)," *Church of Saint Michael | Roman Catholic Archdiocese of Singapore* (blog), 17 January 2021, <https://stmichael.catholic.sg/faith-formation/the-rich-history-of-church-of-st-michaels-1900s-1950s/>.

Church of St Michael

The Church of St Michael was established in 1961 and had its humble beginnings in a small, two-storey bungalow at 17 St Michael's Road, which originally housed a Greek family. Due to a lack of funds, the parish priest endeavoured to borrow everything the church needed. Even the altar boys came from another church.

Over time, the hospitality and care the church provided for the close-knit community nurtured a unique kampong spirit at St Michael's estate. Known as a "parish of the people", the church also served Catholics living between Paya Lebar and town.

St Michael's estate was divided into two due to the construction of the Central Expressway. After that, new roads were built and parishioners on one side of the estate would access the church via a different route.



The original bungalow of the Church of St Michael.



The first Church of St Michael.

Sri Lankaramaya Buddhist Temple

Built in 1952, Sri Lankaramaya Buddhist Temple at St Michael's Road is the oldest Sri Lankan Theravada Buddhist Temple in Singapore. It was established by Sinhalese Buddhist migrants who arrived in Singapore in the 1920s and is currently managed by Singapore Sinhala Buddhist Association.

Inside the temple is a 45-foot reclining Buddha statue, and in the garden there is a life-like effigy of King Devanampiyatissa showing reverence to Arahata Mahinda depicting how Buddhism arrived in Sri Lanka.



Reclining Buddha at Sri Lankaramaya Buddhist Temple. Guest-of-Honour Senior Minister Goh Chok Tong attends celebrations commemorating 60th anniversary of the planting of the sacred bodhi tree and foundation stone laying of Buddha Jayanthi Hall.



Potong Pasir Pond

St Andrew's Village

BRADDELL
HEIGHTS EST

Woodleigh
Park
Woodleigh
Filter Beds
Youngberg
Memorial
Hosp.

Potong
Pasir

SENNETT
EST

ST. MICHAEL'S
EST

SIMS AVE
INDUSTRIAL

POTONG PASIR AND ST ANDREW'S VILLAGE

A HISTORY OF SAND CUTTING

Potong Pasir is a vibrant public housing estate known for its distinctive sloping roof forms. The name Potong Pasir translates to “cut sand” in Malay. From the early 1900s to the 1930s, the area was home to a sand quarry.

Soona Navena Soona Meyappa was a Chettiar¹ who owned the sand quarry.²

Sand and gravel from the quarry was used for various building projects during the colonial period. An entire hill in the area was used for this purpose.

At the time, bullock carts were used to transport sand and gravel to different parts of Singapore.



A sand quarry in Tampines.



Street scene of market street with bullock carts, the only mode of transporting large loads in the early days of the settlement.

From Sand Quarries to Ponds

When the sand quarries ceased operations in 1937, the sand pits turned into ponds that became part of the distinctive landscape of Potong Pasir.

From the 1940s to 1970s, the land was mainly utilised for agriculture. The farmlands were fed by the ponds and waters of the Kallang River.



A vegetable farm in Potong Pasir.

1. Chettians are from Tamil Nadu and often involved in the moneylending business. They arrived in Singapore around the 1820s as traders and merchants.
2. “Indian Heritage Centre – Sign Of Times,” accessed 6 January 2025, <https://www.indianheritage.gov.sg/en/whats-on/programmes/sign-of-times>.

LIVING IN KAMPONG POTONG PASIR

Some of the early inhabitants of Potong Pasir were Chinese who had left the increasingly overcrowded areas in Chinatown to live in the outskirts of town.

There were also farmers from South-east China and Straits Chinese from Malacca who migrated here and set up vegetable farms, pig farms, and fish farms in the area.³



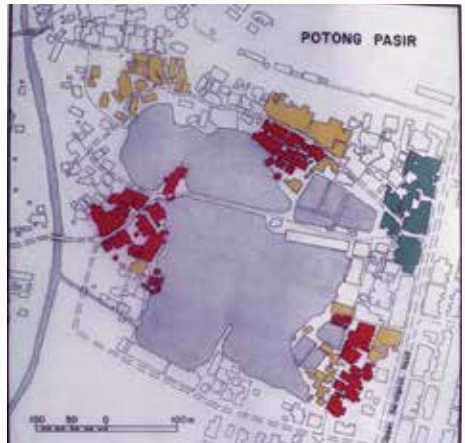
Farmers rearing fish in ponds.

Diverse Communities

Although about 60% of the population was Chinese, there was a multiethnic community living in Kampong Potong Pasir made up of Chinese, Indians, Arabs, Indonesians, and others.

Geographer Jack Humphrey and a group of university students conducted a study of the kampong in the late 1970s.

The map on the right depicts buildings used for housing and commercial (blue) purposes. The red and yellow areas mark the different studies on housing types and uses conducted by the students.



Map of Potong Pasir, 1970s.

The grey areas in the centre are ponds⁴ while the Kallang River is depicted on the left-hand side of the map.⁵

3. Loh Kah Seng, host, Chronicles of Old Singapore, "Jack Humphrey – Old Potong Pasir, "People Were Determined to Stay" Ep2, " October 9, 2024, 48 min., 55 sec., <https://open.spotify.com/episode/1KWNmJOjXuMTY9dMvjmBBP>

4. There were initially four large ponds in Kampong Potong Pasir but they merged into two after a flood in 1968.

5. Loh, "People Were Determined to Stay."

GROWTH OF COTTAGE INDUSTRIES

Besides vegetables and livestock farms, there were cottage industries such as rattan processing in Potong Pasir.

From the 1960s to 1970s, Singapore became an important global centre for the entrepôt trade of rattan.⁶

The growth of small industries such as rattan furniture manufacturing changed the economic significance of Potong Pasir as it transitioned from agriculture and small holdings to more complex businesses.⁷



A rattan (rotan) yard in Singapore. Raw rattan was imported from China and the Dutch East Indies and skills required for processing rattan were probably brought in by Chinese immigrants from Guangdong during the 19th Century.



Rattan processing shed beside a pond in Potong Pasir.



Man soaking rattan canes, Potong Pasir, circa 1960s–1970s.

6. "Making Rattan Products," Britannica, December 17, 2021. <https://www.britannica.com/place/Chicago>.

7. Loh, "People Were Determined to Stay."

A HISTORY OF FLOODS

Situated in a low-lying area, Kampong Potong Pasir was often at the mercy of floods during the monsoon season. The frequent flooding was exacerbated by rapid urbanisation in the 1950s.

When the Kallang River overflowed, the waters would cause substantial damage to homes and farms. All manner of debris as well as rotting, drowned livestock would be carried along by the waters.⁸



Children in a flooded house in Potong Pasir.

The Floods of 1954

Heavy rainfall from October to December caused serious flooding in many areas in Singapore, including Potong Pasir, forcing residents to take shelter at nearby St Andrew's School.

The relief operations were massive and involved the government, Social Welfare Department (SWD), the Royal Malayan Navy and Army, Royal Air Force, Salvation Army, St John's Ambulance, the police, and community volunteers.



Residents being evacuated from Kampong Potong Pasir.



General view of flood areas.

The Floods of 1978

Two major floods in November and December 1978 disrupted the lives of many. The more serious flood occurred on 2 and 3 December. About 20.2 inches of rainfall – the equivalent of 25% of the annual rainfall – fell in just 24 hours. Some residents had to be evacuated due to the ensuing floods.

8. Fiona Williamson, "A Milestone on the Road to Independence? Singapore's Catastrophic 1954 Floods," Environment & Society Portal, *Arcadia*, no. 13 (October 2016), <https://doi.org/10.5282/RCC/7677>.

ST ANDREW'S VILLAGE



Aerial view of St Andrew's Village.

Located on the east and west banks of the Kallang River, St Andrew's Village is home to schools, churches, and the Diocese of Singapore. The buildings on either side are linked by a quaint bridge across the river.

The St Andrew's Mission School was established during the colonial period in 1862. It was founded by Reverend Edward Sherman Venn as the first Anglican boys' school in Singapore.

Over the years, the school moved from several different locations in the town centre to accommodate increasing enrolment. In 1955, the school was divided into the junior school and the secondary school. And by 1978, St Andrew's Junior College was established to offer pre-university courses.

Due to its proximity to the Kallang River, one of the key programmes developed by the school is 'River Studies', which aims to nurture students' understanding of the importance of environmental conservation.

Church of the Ascension: Refuge From Rising Waters

Known as "church on the hill", the Church of the Ascension is best remembered for being a place of refuge for the residents of Kampong Potong Pasir.

In the early days, when Potong Pasir was the site of constant flooding, the villagers would "run for the hill". The church was not only a place of worship but a relief centre for flood victims.

The school would not only provide shelter but food and clothing to the stricken villagers.



Church of the Ascension located next to St Andrew's Junior School at Francis Thomas Drive.

Traditions that Endure

Ask any old boy about school life at St Andrew's School in the 50s and 60s and they are likely to remember the frequent floods that occurred in the area.



(L–R) Mr Woo Joo Seng, Mr Brian Shegar, Mr Sivasothi N, Mr Gerald Lim, Dr Goh Chong Chia.

Helping the Community

During monsoon season, serious floods would force residents of nearby Kampong Potong Pasir to seek shelter at the school, as well as the nearby Church of the Ascension. Mr Brian Shegar, alumnus of St Andrew's School, remembers being part of a social services group that distributed necessities to flood victims. He says,

“What was remarkable was how fast life went back to normal after the floods receded. It was possible because of how responsive and spontaneous the community was at the time. It was a very cohesive community that lived there. People just did whatever they could to help each other.”

He adds, “Our school was also a place where students from different social and economic backgrounds could thrive. It was something that gave us a good foundation later in life.”

Former students also have many memories of the nearby Kallang River. Another school alumnus Dr Goh Chong Chia recalls, “In those days, the river was dirty and

perpetually black. Whenever the river overflowed, the waters would breach the banks and cover the school field in mud.”

A Sporting Tradition

For Mr Gerald Lim, the slippery mud was something that gave the St Andrew's rugby team a sliding move that didn't exist in other rugby fields!

The sprawling campus had a natural landscape that gave the students many opportunities for their favourite sports – from rugby to football to cross country runs. Sometimes, the students would also troop to nearby McNair School across the Montgomery Bridge for inter-school games.

Steeped in History

Some old boys may remember that the area surrounding the school was steeped in history. It is believed that the opposite banks of the river were home to famous men. Mr Joseph Balestier, the first American Counsel to be appointed to Singapore lived on one side of the bank. Meanwhile, Dr William Montgomerie, famous for discovering *gutta-percha* – a substance used for submarine telegraph cables, lived on the other.

One of the buildings in the school – Woodsville House was the home of Robert Carr Woods, the first editor of *The Straits Times*.

Mr Sivasothi N recalls that the crocodiles were also part of the history of the area. He says, “Kallang River was famous for crocodile encounters until the mid-1980s but the animals were probably dispersed out of river during the massive river cleanup from 1987.”

Mr Wong Joo Seng says, “Our lives were made all the more special, textured, and rich with these lovely memories of our old school.”

Potong Pasir: Changing Landscape



1960s



2016

ERA OF RENEWAL

Changing Landscapes

By the 1980s, the ponds of Potong Pasir were filled with earth to make way for redevelopment.

The farms and old kampong were replaced by new flats featuring a new architectural design built by the Housing Development Board.

Today, it is the iconic sloping roofs of the buildings that give Potong Pasir estate its unique and endearing character.



Construction of public housing flats in Potong Pasir estate in the mid to late 1980s.

Longest Elevated Cycling Bridge

By 2027, an elevated 682 m cycling bridge will provide added connectivity and seamless travel for pedestrians and cyclists.

The elevated bridge is part of a 1.2 km link with ramps, paths, and an underpass that will complete the Bishan-to-City (B2C) route,

and connect the waterfront space around St Andrew's Junior College and the Jalan Taman neighbourhood park.

The Bishan-to-City Links project will connect communities along the Kallang River by providing a seamless 10 km green commute along the Kallang Park Connector.



Artist's impression of cycling bridge across the PIE.

A TALE OF FISH AND FLOODS

“The putrid smell of the river was unforgettable.”



Mr Leong Kwok Peng, Chair of Conservation Committee (Nature Society Singapore)

When he was a boy growing up in Kampong Potong Pasir, Mr Leong Kwok Peng would follow his grandmother to visit the nearby farms. He relished the opportunity to catch gourami and fighting fish from the ponds. At the time, the farmland seemed to stretch endlessly from Potong Pasir to Toa Payoh to Braddell.

Back in the day, the residents of Kampong Potong Pasir were mostly Chinese. However, Mr Leong remembers that there were also a community of Indian cattle farmers that reared buffaloes and cows in the area.

He says, “The cows would sometimes graze in the Upper Serangoon area and drink from the ponds. Sometimes, the dairy farmers would bring the cows to Sennett Estate, where they would sell fresh milk to residents.”

Walking home from school with his friends, he would pass mangrove forests and squatter huts along the banks of the Kallang River. Besides farms, there were also many sawmills in the area. Boats would transport the logs directly to the sawmills at high tide by floating them in the river.

“The putrid smell of the river was unforgettable.”

A little-known fact about the ponds in Kampong Potong Pasir is that during the food shortage in World War II, the Japanese brought tilapia from Java to Singapore to boost the food supply. Known as *ikan tes* or *sepat Jepun*, the tilapia multiplied in abundance. Thousands of *ikan tes* were distributed all over Singapore in 1945, into ponds in West Coast, Bedok, Changi and Geylang Serai.

Mr Leong recalls, “Every time there were floods, water from the ponds would overflow and the tilapia would find their way downriver and into the drains outside upper Serangoon Road. We would scoop the fish from the drains and ponds with rattan scoop baskets along Upper Serangoon Road. My mother would steam the fishes with fermented bean sauce!”

He remembers that people used to have more interaction with the river. Residents would fish and farmers would make use of the water for their vegetable plots.

“I see the Kallang River as a nature corridor and hope that there will be more opportunities for residents to get closer to the river, not just physically, but also to feel a greater affinity for the waterway.”

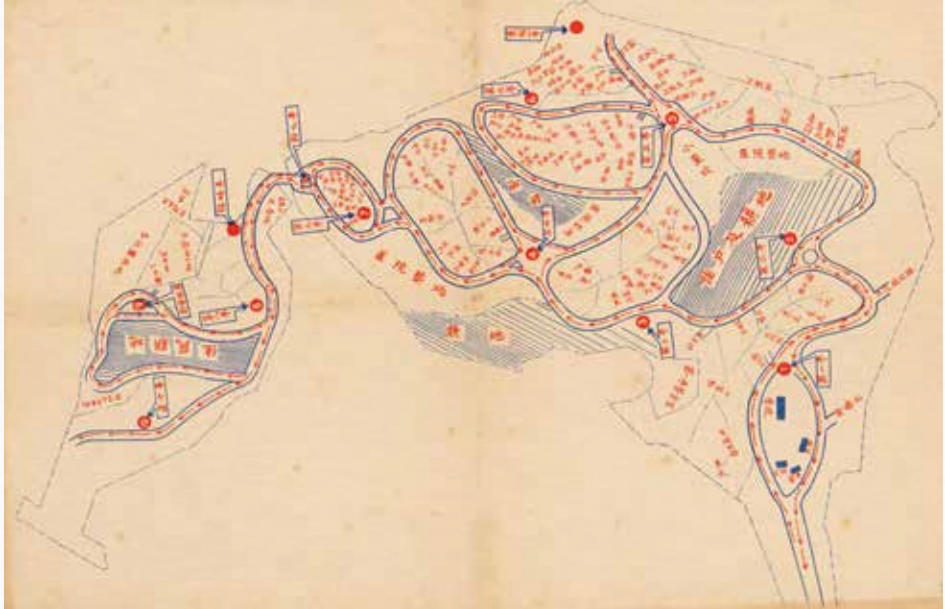


Kampung
San Teng

BISHAN AND BRADDELL

This stretch of the Kallang River comprises a narrow waterway fed by multiple streams criss-crossing the landscape of the Ang Mo Kio and Bishan areas.

While Ang Mo Kio was associated with small villages and agricultural activity, Bishan was the site of the largest Chinese cemetery in Singapore.



Map of old Bishan depicting location plan of burial grounds.

Pavilions on the Jade Hills

Bishan New Town was built on the site of a cemetery owned by the Kwong Wai Siew Peck San Theng clan association.

Initially, the cemetery was meant to provide a resting place for poor Cantonese and Hakka immigrants from China. But later it also served the needs of other dialect groups.

By the 1970s, Peck San Theng (碧山亭) – which means “Pavilions on the Jade Hills” – was the largest Chinese cemetery in Singapore. The name “Bi Shan” comes from the Mandarin translation of Peck San.

In the 1960s, the cemetery was notorious for gang and secret society activities. During World War II, it was also the site for a battle between the Japanese and the British forces.

Life in a Cemetery

Settlers in Kampong San Teng were mostly Chinese involved in the funeral trade. There were also many vegetable and livestock farmers.

In 1936, Kwong Wai Siew built a school for the children in the village and provided free education. The village also had a market, temple, cinema, community centre, and teahouse.

Because it was so self-contained, there was a great deal of 'kampong spirit'. There were non-Chinese residents in the village who were able to converse in Cantonese.



Kampong San Teng, 1970.

When the government acquired the land in 1979 to develop the housing estate, the villagers of Kampong San Teng and Soon Hock Village (site of Shunfu Estate) resettled in Ang Mo Kio.



Topographical map shows contours, buildings, bungalows, housing estates, villages, schools, temples, footbridges, forest, Chinese cemeteries, nearby Kampong San Teng.

- ① Upper Thomson Road
- ② Kampong San Teng

- ③ Temple at Kwong Wai Siew Peck San Theng
- ④ Braddell Road



Aerial view of Bishan.

Bishan New Town

Bishan estate was meant to be a prime residential district with a variety of housing types. The pitched roofs of the flats were inspired by the pavilions of old,¹ and reflect

the planners and architects' efforts to create a unique look and identity for the estate. For example, the public housing flats in Bishan were the first to have open roof terraces.

The Nine Bridges of Kallang River

The name “Kow Tiow Kio” (Nine Bridges) came about because in the old days, people travelling from Braddell Road to Upper Thomson Road had to cross nine bridges over the tributaries of the Kallang River.

Nobody knows the story behind the name “Ang Mo Kio”. It sounds like the Hokkien name for “tomatoes” but could also mean

“Caucasian Bridge”, where *ang mo* is Hokkien for “red-haired” and commonly used to refer to Caucasians.

Former villagers remember the route fondly because it was a picturesque area with undulating hillocks, meandering streams, farms, and ponds filled with water hyacinths and lotus plants.

1. The Becoming Bishan Team, *Becoming Bishan* (Raffles Archives and Museum of Raffles Institution, 2015) 46.



TRANSFORMING SINGAPORE'S WATERWAYS



Cleaning up in progress along the river.

“In the past, we protected our water resources by keeping people away from them; now, we will bring people closer to water so that they will enjoy and cherish it more.”

– Former Prime Minister Lee Hsien Loong¹

Today, the Kallang River serves a myriad of land uses, from public and private residential estates to industrial, commercial, and educational premises. The story of the Kallang River is tied to the history of Singapore and to every Singaporean's relationship with water.



Aerial view of Marina Barrage.

1. Lee Hsien Loong. “Speech by Mr Lee Hsien Loong, Prime Minister,” Active, Beautiful and Clean (ABC) Waters Exhibition, Asian Civilisations Museum, 6th February 2007, <https://www.nas.gov.sg/archivesonline/data/pdfdoc/20070206997.htm>

HEADWATERS OF THE KALLANG RIVER

Lower Peirce Reservoir is the source of the Kallang River and the second oldest reservoir in Singapore after MacRitchie Reservoir.

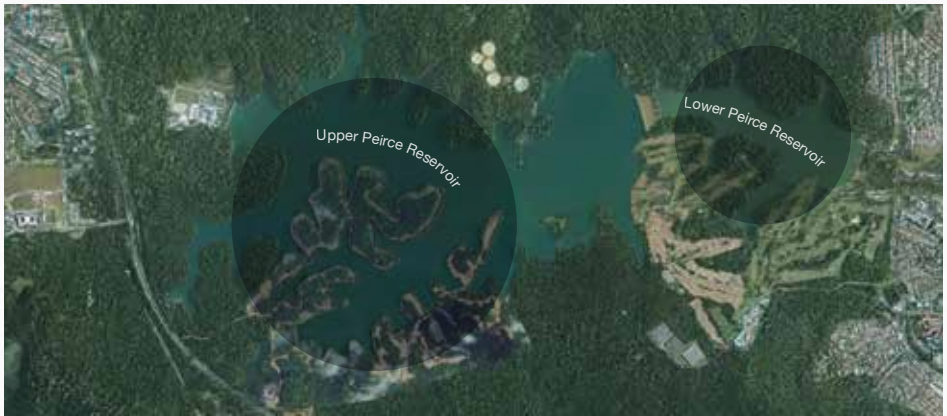
Previously known as Kalang (Kallang) River Reservoir, it was later renamed in recognition of municipal engineer, Robert Peirce for the improvements he made to Singapore's water supply facilities.

In 1902, Peirce proposed creating a second impounding reservoir by building an embankment across the Kallang River. He saw this as a means to alleviate potential

water shortages in the future. When it was officially opened in 1912, the reservoir had a storage capacity of 750 million gallons.

The upper part of the Peirce Reservoir was later dammed in 1975 to create Upper Peirce Reservoir, which provided an additional source of water supply to support industrialisation and urban development.

Today, Lower Peirce Reservoir forms part of the Central Catchment Nature Reserve together with Upper Peirce Reservoir, Upper Seletar Reservoir, and MacRitchie Reservoir.



Then and now: Kalang (Kallang) River Reservoir or Peirce Reservoir.

LOOKING BACK: A POLLUTED WATERWAY

It is easy to forget that Kallang River was once a polluted river choked with all manner of waste – from municipal waste to agricultural and animal waste to industrial waste.

When the 10-year clean-up and re-development of the Kallang River was completed in 1987, it enhanced the city's liveability and led to greater appreciation for Singapore's urban waterways.



Kallang River clean-up in progress at Kallang Place.

Early Sources of Pollution

The growth of trade and commerce in the 19th century was a major contributor to pollutive practices along the Kallang River and the Singapore River.

Besides industrial and agricultural waste from shipyards, farms, and factories located along the Kallang River, overcrowded settlements along the banks sullied the waters with garbage and sewage.

Pollution in the Post-Independence Era

During the post-independent era, the pollution in Kallang River became worse. Besides industrial activities at the Kallang Basin, poor waste management, squatter colonies, and an absence of infrastructure contributed to the filthy waterway.

The Clean-Up: A Multi-Agency Effort

In 1977, at the opening of the Upper Peirce Reservoir, Mr Lee Kuan Yew set a time frame of 10 years for the completion of the clean-up.

The clean-up of the Kallang River involved more than the removal of pollutants in the waterway. To address the long-term environmental, economic, and social impact of river pollution, multiple government agencies worked closely together to implement a cohesive strategy to eliminate the source of pollution.

In the initial stages, businesses such as boatyards and coal suppliers along the river were relocated in order to remove the source of industrial pollution. Agricultural farms that polluted the water with animal waste and animal carcasses were also relocated to ensure water safety.



Prime Minister Lee Kuan Yew, his wife, Environment Minister Dr Ahmad Mattar, his wife, and officials making their inspection tour of Marina Bay and Kallang Basin.

Developing Infrastructure and Facilities

The rapid development of housing board flats allowed people living in squatter colonies to relocate into cleaner and safer homes.

The Housing and Development Board worked closely with the Public Utilities Board to ensure that there was clean water piped to individual flats.

The development of better supply, drainage, and sewage facilities contributed to the long-term success of the river clean-up.

One of the bridges across the naturalised river at Bishan-Ang Mo Kio Park.

Eliminating Flood Risks

In the 1960s and 1970s, Singapore experienced wide-spread flooding during the monsoon seasons, especially in the city centre, which was built on relatively low-lying land.

Today, Singapore is relieved of prolonged floods through an extensive network of about 8,000 km of drains, canals, and rivers that serve to effectively convey stormwater runoff into reservoirs or the sea.

This systems approach to stormwater management serves to leverage Singapore's strength as a tropical island with an abundance of rainfall to promote water resiliency.



STEWARDS OF OUR WATERWAYS

“Anything that happens to it will surely affect everyone; we must really take ownership of the river and our waterways.”



**Mr Edward Sebastian John,
WWS Volunteer**

Every Saturday morning, Mr Edward Sebastian John makes his way to the Kallang Riverside to volunteer with the Waterways Watch Society (WWS). After some friendly banter over breakfast, he joins other volunteers to patrol the Kallang River.

Besides keeping an eye out for objects that might pollute the waterway, the volunteers also try to spot structural damage to infrastructure, or anything out of the ordinary.

“We often see non-biodegradable objects that could compromise the quality of the waterway,” says Mr John.

However, he emphasises that the WWS volunteers are not simply focused on garbage collection. Instead, their work revolves around public education and preventing actions that pollute the river. Ever since he joined WWS in 1999, Mr John has become more passionate about educating the public about the importance of clean waterways.

He says, “Surprisingly, a lot of people are not aware that the river is now a freshwater reservoir. Suppose that Singapore is a village, then the river is our shared resource. Anything that happens to it will surely affect everyone; we must really take ownership of the river and our waterways.”

As a marine engineer who has travelled the world and seen many rivers and lakes, he is proud of how clean the Kallang River is now. But he remembers that it was not always like this.

When he was 14 years old, Mr John worked in a shipyard at Jalan Benaan Kapal cleaning vessels that docked there. At the time, all manner of waste from the boats was discharged into the river. Nobody thought much about it because the river was already dirty.

Mr John says, “We have come a long way since then. The river transformation has been so great over time. In the 60s and 70s, the focus was on growing Singapore’s economy. Now, there is more awareness about the impact of marine pollution. It was our late prime minister Lee Kuan Yew who initiated the cleanup of our waterways but now it is up to us to upkeep the river’s immaculate and pristine condition.”



CHARMING WATERSCAPES: ACTIVE, BEAUTIFUL, CLEAN WATERS

Launched in 2006, the ABC Waters Programme by the Public Utilities Board has transformed water management as well as public perceptions of water in urban areas.

Recreational Spaces for All

Drainage and water storage systems were once purely utilitarian. They are now part of a cohesive and seamless network that effectively manages stormwater, promotes social interactions, and fosters greater public appreciation of our waterways and reservoirs.

Through the programme, canals, rivers, and reservoirs have transformed into beautiful recreational spaces for all – bringing people closer to waterways and water bodies, and promoting a deeper sense of ownership and connection.

ABC Waters Island-Wide

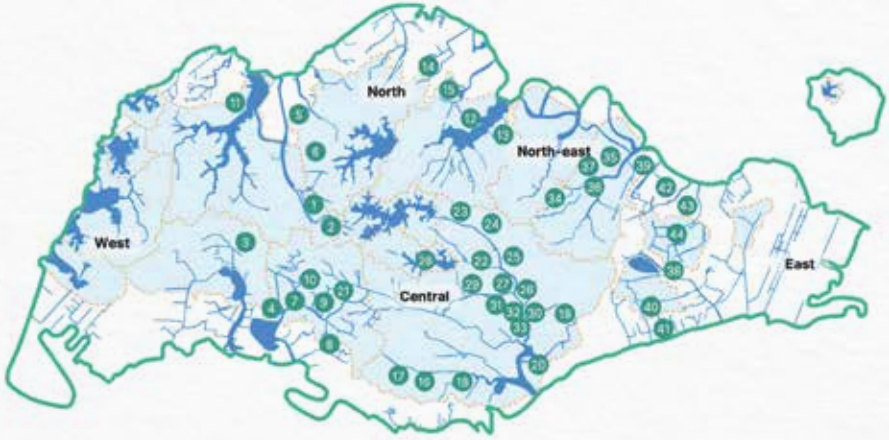
As at June 2024, PUB has completed 55 ABC Waters projects around the island and aims to complete 100 ABC Waters projects by 2030. The Kallang River is home to key ABC Waters projects such as the Kolam Ayer ABC Waterfront – a test bed project and the flagship Bishan-Ang Mo Kio naturalised canal.

Design Features of ABC Waters

ABC Waters Design Features are natural systems of plants and soil that slow down, detain, and cleanse stormwater runoff before discharging into our waterways. These features also provide a conducive habitat for a wide range of flora and fauna to foster local biodiversity.



Swales at Potong Pasir with natural drainage channels and a gentle slope helps control stormwater overflow and the quality of water entering waterways.



Singapore's Blue Map depicting our water catchment area.

Kolam Ayer ABC Waterfront

The rivers and canals of Kolam Ayer were test beds for the first ABC Waters Programme. Blue spaces that were underused were transformed, and the functional purpose of drainage was integrated seamlessly into the design of the 200 m stretch of the river.

Open to the public in 2008, the Kolam Ayer ABC Waterfront provides social and recreational spaces for the community and opportunities to interact with the water.



Kolam Ayer ABC Waterfront

A wooden rotunda on the southern plaza of the River Vista @ Kallang allows residents to get closer to the river.



Sungei Whampoa-St George's Lane: Small riverine park.

Interactive features include floating lookout decks, a water wheel, and the Archimedes Screw. From the Kallang Park Connector Network (PCN), park users can walk, run, or cycle all the way to Bishan-Ang Mo Kio Park.

BISHAN-ANG MO KIO PARK: FROM CANALS TO NATURALISED RIVER



Part of the naturalised river at Bishan-Ang Mo Kio Park.

Built around the Kallang River, Bishan-Ang Mo Kio Park is one of the largest parks in Singapore, occupying 62 ha of land. Kallang River @ Bishan-Ang Mo Kio Park is PUB's flagship project under the ABC Waters Programme.

Officially open on 17 March 2012, the project is the first of its kind in Singapore – transforming a concrete 2.7 km canal into a 3 km long sinuous, natural river, with bio-engineered river edges using a variety of plants and bedding materials.

A Cherished Place

Headquartered in Bishan, Girl Guides Singapore (GGS) is the largest volunteer organisation for girls and women in Singapore.

Their proximity to the Kallang River and the Bishan-Ang Mo Kio Park is something they cherish.

GGS have also organised an event called BP Quest where Girl Guides from SEA compete in guiding and general knowledge skills.

Ms Jalilah Johar, Lead (Fundraising and Communications) shares, “Our Brownies from open units also go to the Bishan Park to learn about flora and fauna or have tea parties. We like the park because it is very

well-connected and easy to access. Some of us remember how dirty the Kallang River used to be. But it has really transformed.”



Brownies and Guides plogging along the canal leading to Bishan Park.

This method helps to stabilise the slope to prevent soil erosion, and provides natural habitats that enrich the park's biodiversity.

Design features such as a cleansing biotope also helps to treat water from the river and ponds in the park. The cleansed water is then returned to the ponds, eventually cascading back into the river.

The concrete canal that once separated Bishan Park and Ang Mo Kio Park has been transformed into a meandering waterway

that flows right at the doorstep of Bishan and Ang Mo Kio residents and unites the two towns.

Park users can enjoy recreational activities along the river banks during dry weather where water flow is confined to a narrow stream. As the rejuvenated river brings the community closer to water, it continues to fulfil a greater mission of fostering a sense of communal ownership and appreciation of this precious resource.



Bridges at the park provide greater accessibility as well as vantage points for users to admire the scenery.

ABC Waters @ Kallang River (Bishan-Braddell)



ABC Waters @ Kallang River between Bishan Road and Braddell Road have cantilevered decks along the river to allow residents to get closer to the water.

Overlooking the Kallang River is a cycling ramp that provides a scenic connection from Bishan to Downtown Singapore.

A community deck along the river, together with planter islands in the channel and creepers along the canal walls, create visual interest around the waterway.

Woodleigh Waterworks

Woodleigh Waterworks is one of the oldest waterworks in Singapore that treats raw water collected in reservoirs to potable water.

Built in 1910, it was initially named Woodleigh Filters. Since then, the plant has undergone several rounds of upgrading to enhance the plant's treatment processes.

The most recent upgrade was completed in 2019 and includes the addition of new processes such as ozone and biologically activated carbon (BAC) filters.

These advanced processes will prepare the plant for more challenging raw water quality, and ensure that potable water supplied by the plant continues to meet drinking water standards.



Aerial view of the early days of Woodleigh Waterworks.



Commissioning of Woodleigh Waterworks in 1910.



Aerial view of present day Woodleigh Waterworks.



Rain gardens help to cleanse pollutants from stormwater naturally.

ABC Waters @ Kallang River (Potong Pasir)

ABC Waters @ Kallang River (Potong Pasir) stretches for 400 m from Potong Pasir Ave 1 to the St Andrew’s Junior School. Situated in proximity to St Andrew’s Village, it is predominantly surrounded by Potong Pasir residential estate.

Designed for the Community

Designed with the community in mind, it created learning opportunities for students at St Andrew’s Village, which comprises St Andrew’s Junior School, St Andrew’s Secondary School, and St Andrew’s Junior College.

The schools were consulted at the design stage. An “outdoor classroom” concept, to engage students and provide them with the space for experiential learning on the cleansing function of ABC Waters design features (e.g. rain gardens and bioretention swales), were adopted.

An open plaza provides a gathering space for residents to use the area for community purposes. A myriad of colourful plants and water-edge planting enrich biodiversity, enliven the surroundings, and enhance the water quality.

ABC Waters @ Kallang River (Upper Boon Keng to Sims Avenue)

Located next to the Kallang PCN, the spaces next to the river were transformed to include a 15-metre-wide promenade with lookout decks that provide opportunities for people to get closer views of the river.

Rain gardens were also incorporated to help cleanse the runoff before discharging into Kallang River.



Lookout deck at the promenade at Kallang River (Upper Boon Keng – Sims Avenue).

TOWARDS WATER RESILIENCE: MARINA RESERVOIR

It was the late Prime Minister Mr Lee Kuan Yew who envisioned damming the mouth of the Marina Channel to create a reservoir that would also serve as a flood control facility to reduce the risks of flooding in the south-central area of Singapore.

Marina Barrage was opened in 2008 and commissioned as a freshwater reservoir in 2010. Nine crest gates across the 350 m Marina Channel separate freshwater from seawater. At 10,000 ha, the Marina Reservoir is currently the largest water catchment area on the island. It is the 15th reservoir on the island and has increased our water catchment area from half to two-thirds of Singapore's land area.

Rainwater collected in major waterways such as Singapore River, Kallang River, Geylang River, Stamford Canal, and Rochor Canal is conveyed to Marina Reservoir for storage. The rainwater is piped to PUB's waterworks where it is treated to produce drinking water.



Aerial view of Marina Barrage.



The barrage comprises nine 30-metre-long steel crest gates.



Marina Barrage is popular with kite-flying enthusiasts.



Kayakers at the Kallang Basin.

EYE ON THE FUTURE



Kayakers along the Kallang River.

Throughout Singapore's history, the Kallang River has served as a vital artery for the diverse communities living and working along the river. From the Orang Biduanda Kallang to the early colonial settlers to pioneering industrialists to kampong dwellers – the waterway has sustained the livelihoods and traditions of generations.

Modern Transformation

The transformation of the Kallang River began with the clean-up of the river and the growth of modern public and private residential estates, and it will continue to evolve with the needs of society.

Over time, the introduction of projects such as the ABC Waters as well as walking and cycling infrastructure has complemented

the ways in which we live and work along the river. Today, Kallang River has become not only a freshwater source but a recreational corridor and cycling conduit in the heart of the city.

Reconnecting With Communities

The historic river will always have a special place in the hearts of Singaporeans – allowing the community to reconnect with nature and with each other in the busy city.

When fully completed, the Bishan-to-City links will create seamless connectivity along the river, and open the waterway to streams of commuters seeking a more invigorating and sustainable way to get to the city.

But, there is opportunity to do more.



Placemaking Along the Identity Corridor

The Kallang River is earmarked as one of the Identity Corridors in Singapore and the Urban Redevelopment Authority will continue to enhance the recreational potential of the river.

Besides more water-based activities, the river can also offer Singaporeans an opportunity to learn more about local wildlife and littoral landscapes by the river.

At the same time, different stretches of the Kallang River will evolve its own character – strengthened through urban design – and develop its own special sense of place and familiarity to locals and visitors alike.

Enliven Public Places Together

The Lively Places Fund will continue to spark and support community projects such as the creation of public spaces, furniture, and artwork along the river to create delight and anchor emotional connections to the historic waterway.

It is hoped that this collection of stories and memories of life by the Kallang River will inspire many to discover and create their own memories through a variety of community projects in the years to come.

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Separator Maps

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