Discover the history of Singapore through land transport, traffic and urbanisation

A history of a city-state can cover its political leaders or military past. Historian Eisen Teo is fascinated by something else: its land transport networks, and urban and traffic patterns. He dubs it the History of Movement: an intimate history driven by human nature, the age-old need to move from Point A to Point B for the everyday conduct of life. As the world urbanises, the history of movement will only grow in relevance.

Jalan Singapura sheds new light on Singapore history through 700 years of movement. From horse carriages to subway trains, dirt tracks to million-dollar expressways, ancient attap villages to glass-and-steel waterfronts, the movement of a people has shaped Singapore's present — and illuminates its future.

This book gives readers a new perspective on Singapore history through topics very close to everyday life—land transport, urban experiences and traffic. It also draws lessons from history to provide bold solutions for present-day urban and land transport issues in Singapore.

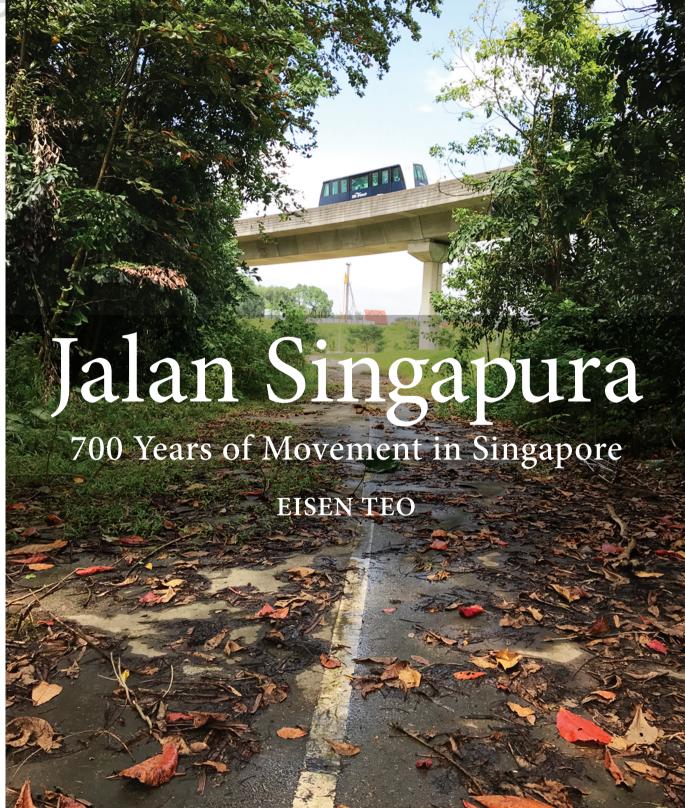
"This is a political history without being political. It is an economic history without being economic. And it is a cultural history without being cultural. Eisen's personal insights add value, and his ability to analyse the unfolding plural experiences of Singaporeans and their transportation stories enriches the study. He has presented one of the most original studies of Singapore history that I have read."

> Professor Brian P. Farrell Department of History, National University of Singapore

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Jalan Singapura

Jalan Singapura

700 Years of Movement in Singapore

Eisen Teo



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Cover photo by Eisen Teo, 2018: The new above the old—the Punggol Light Rapid Transit Line's West Loop (opened 2014) appears above a section of historic Ponggol Seventeenth Avenue that was closed due to road realignment.

To Tiak, my wife

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INTRODUCTION
A History of Movement

HIGH STREET is a short, nondescript, one-way road nestled in the heart of the Republic of Singapore's Central Business District (CBD), the city-state's commercial and business nexus. It is just three lanes wide and no longer than 145 metres. However, of the thousands of roads crisscrossing Singapore, a modern metropolis of more than 5.6 million people, High Street can be seen as a microcosm of a history of urbanisation, transport, and traffic in Singapore.

High Street was one of the first roads laid down by the British in 1819 when they colonised the land surrounding the banks of the Singapore River. As the ink was drying on the treaties of trade and friendship between the British Empire and Johor Sultanate, Lieutenant Henry Ralfe, an engineer and gunnery officer of the Bengal Artillery of the British East India Company (EIC), oversaw the clearing of jungle north of the Singapore River for the laying down of High Street.

In those early days, the army cometh and the army maketh, and that applied to roads too. Singapore had almost no cheap labour or convicts—yet. They would come later, in the thousands. It was the sepoys, or Indian soldiers serving the EIC, who did the grunt work of clearing the land of jungle and undergrowth, breaking and laying down the stone chips, and covering the chips with laterite to form macadam roads, a new type of road at the time.

High Street was significant for a few reasons. It ran parallel to the Singapore River just 120 metres away, so the real estate there was coveted by merchants and traders, possibly giving rise to its name—in Britain, "High Street" was a common name given to the primary business streets of towns and cities. It was also literally on higher ground than the land on the other side of the Singapore River, which meant it flooded a lot less frequently, making the land around it more attractive to settlers.

High Street also ran from the sea to an ancient hill with a history going back at least 500 years, a hill once occupied by the Malay kings who ruled the island. The hill was called Bukit Larangan, Malay for "Forbidden Hill". Symbolically, High Street gave the British access to the former seat of Singapore's ancient kings, a direct path to legitimisation as Singapore's next rulers. In 1823, four years after the port of Singapore's founding, when Sir Stamford Raffles (1781–1826) travelled from his residence atop the hill down to the sea to board a ship bound for England for the last time, he did so using High Street.

The year Raffles left for home, there were no more than 10,000 people living in and around the port of Singapore, a settlement of no more than three dozen roads. Most of the population went about their daily lives on foot, with the exception of a few who rode on carriages pulled by horses and donkeys, beasts of burden hauled in by ship from around the Malay Archipelago, Australia, and even far-off Europe.

Over the next 200 years, the Town of Singapore spread outwards from High Street like spokes of a wheel. Plantations and villages mushroomed





Top: High Street in 1905, with the Hotel de l'Europe on the right, and Fort Canning Hill in the background. Above: High Street today, at roughly the same spot. Parliament House is to the left, while the National Gallery is to the right. (Sources: Library of Congress, Eisen Teo)

For Review of

further and further away from the Singapore River. Hundreds of roads were built. Myriad forms of transport came and went. People could travel longer distances within the same amount of travelling time—or less. As Singapore's population exploded from the thousands to the hundreds of thousands, as the streets became busier, as more people made more trips every day on faster vehicles, Singapore became a town—later a city—of movement.

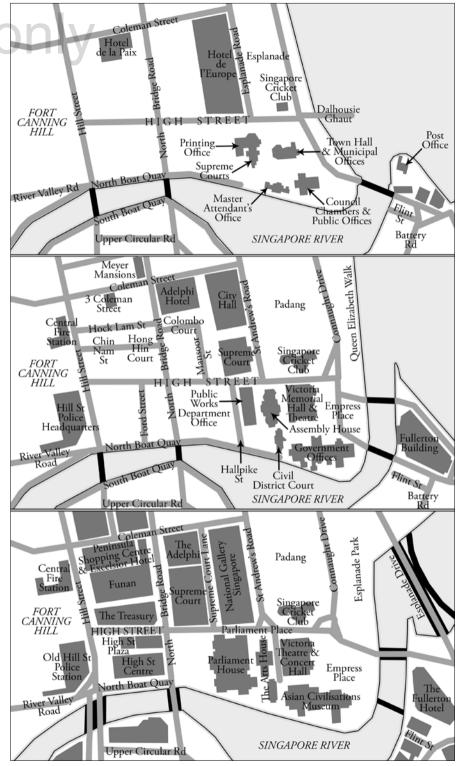
The face of High Street morphed in tandem with the development of Singapore. In the 1820s, residences were constructed for merchants such as Edward Boustead (1800-1888) and John Argyle Maxwell. An open field was set aside at the seaward end of High Street. It would become the Esplanade, a recreational and social landmark for the European community, where the cream of society headed in the evenings in their horse carriages to meet and gossip. In 1827, Maxwell's home was rented to the authorities to serve as a courthouse, which eventually became the Supreme Court. By the 1870s, it was joined by a multitude of shophouses, a Town Hall, a Printing Office, and over the site of Boustead's residence, the Hotel de L'Europe, which would become one of colonial Singapore's finest hotels. Into the 1880s, rickshaws—a new form of public transport—transformed movement in Singapore. High Street saw the coming up of rickshaw stations—depots for the two-wheeled steel-and-wooden contraptions and their pullers alongside European textile shops and department stores. The sea gradually receded from the road as reclamation moved the shoreline eastward, growing the size of the Esplanade, known today as the Padang, the Malay word for "Field".

Around the turn of the century, the Town Hall was demolished to make way for the Queen Victoria Memorial Hall and Theatre—known today as the Victoria Theatre and Memorial Hall. The Hotel de

L'Europe survived longer, into the 1930s, before it too was demolished for a new Supreme Court, presently part of the National Gallery. After World War II ended in 1945, the Printing Office building was turned over to the Public Works Department—a bureaucratic establishment involved in the building and maintenance of roads, bridges, drains and other public infrastructure. As Singapore took slow but sure steps towards self-government, the original Supreme Court building was refurbished into an Assembly House; with full independence in 1965, it became a Parliament House.

High Street of the 1960s was still the premier shopping belt of the City, the predecessor of today's swanky Orchard Road. "Urban renewal" in the 1970s and 1980s completely changed its appearance, replacing its crumbling shophouses with larger buildings such as High Street Centre and High Street Plaza. Just two city blocks away, the ground opened up like a gaping surgical wound for the construction of the underground Mass Rapid Transit (MRT) system. But at least High Street survived the overhaul of the historic city centre—many roads and urban spaces around it did not.

As the 20th century came to an end, three blocks were added to the historic Printing Office building to form a new Parliament House; the former Parliament House is now the Arts House. To consecrate the move, almost 60 per cent of the length of High Street was renamed Parliament Place. In one fell swoop, High Street retreated further from the sea than at any other time in its history. Today, what remains of High Street is buried in the dense undergrowth of an urban jungle. Like most roads in Singapore, High Street is clean and well-maintained, with smart white lines painted on it for the smooth passage of motor vehicles, flanked by broad pavements fronting glass-and-concrete facades.



High Street and surrounding areas in (from top to bottom) 1878, 1954, and 2019. The road is a microcosm of a history of urbanisation, transport, and traffic in Singapore. (Source: Eisen Teo)

SINGAPORE IS a city of movement lacking a History of Movement. A history of movement traces the evolution over time of physical and human phenomena that must be studied together, as they interact with and influence each other.

The phenomena include:

- Firstly, the Methods of Movement modes of land transport, from the horse carriage and rickshaw to the motor car and MRT.
- Secondly, Channels of Movement which refer to roads and rail systems, and even rivers and streams. For the purposes of this book, I will cover only land-based channels of movement. Also, in the context of a city, a history of channels of movement is inseparable from a history of the urban space in which the channels exist. German urban transportation planner Kurt Leibbrand wrote: "Town building and traffic cannot be separated. One without the other is unthinkable."
- Thirdly, Patterns of Movement—the traffic of a city, and how inhabitants of a city interact with each other through different methods of movement over the same channel of movement.
- Lastly, Experiences of Movement—the social memories of travel. Singapore exists not just as a place, but also a state of mind; likewise, movement exists not just by traversing the space between point A and point B. Travelling exposes people to the scenery from A to B, bequeaths them varying sensations of time, and forces them to interact with other road users, albeit fleetingly. Movement becomes part and parcel of urban existence, and every

experience of movement, which is very personal, consciously or subconsciously influences an individual's future travel behaviour. Movement takes place in a continuously changing environment, and people continuously react and adapt to such an environment.

A history of movement for Singapore also unearths the underlying forces or processes governing the evolution of the aforementioned aspects of movement. Why did steam and electric trams die out so quickly in Singapore, as compared to other Asian cities? What explains the presence of grid systems of roads in and around the CBD? What are the stories behind clusters of road names more reminiscent of an English countryside than a tropical island? Did Singapore always possess a "rush hour" and were congested roads, parking problems, and high accident rates always endemic? Answering these questions exposes both the threads of continuity and the interstices that make up a history of movement.

A history of movement for Singapore needs to be written for several compelling reasons. One is historiography. Books on Singapore's political and military history, and "big" personalities in Singapore history, outnumber books on social, cultural, and other aspects of Singapore. Fortunately, the proportions are gradually shifting, but the roads of urban and land transport history are still relatively less trodden.

Which leads to the second reason: perspective. This book will map not just 200 years of modern Singapore, but the 8,000 or so years before it, back to the geological formation of the island presently known as Singapore. This attempt at the longue durée departs from short-term approaches to Singapore history, the frequency of which was

intensified by SG50, a year-long series of activities held in Singapore in 2015 to commemorate 50 years of independence from Malaysia. Delving so deep into the past serves a pragmatic purpose. We can use the past as a beacon to illuminate the present, and as a compass to steer us into the Conclusion, there are seven parts to this book. future.

A history of movement is also crucial for understanding the creation and destruction of history in Singapore. A history of movement charts the creation of the man-made environment in which both epochal events and everyday social memories have unfolded. This book will cover decades-long processes, such as the 19th-century spread of plantation agriculture, and brief episodes such as the British putting down the worst riots in modern Singapore's history in 1854, and the Japanese invasion of Singapore Island in 1942.

As for the destruction of history, look no further than how a new city was built over the ashes of an old city from the 1960s to the 1990s; historic landmarks making way for arterial roads, expressways, and MRT lines; even certain place names being chosen over others for the christening of towns and roads. These and more will be covered in this book.

Finally, a history of movement is an intimate, personal history. I was born in Singapore in 1984, when thousands were working around the clock on dozens of MRT construction sites around the island. Over my lifetime, the MRT—which I use almost every day—has grown from tabletop blueprints to five lines, 200 km of track and 119 stations. My experience of taking the MRT has changed over time. When I was a kid, I could still get a seat on the train even during the rush hour; now, trains are packed even past 10pm on weekdays. Be it in Singapore or another city, we have to move around every day to live our

lives. Transport is something we take all the time; traversing urban spaces is part and parcel of existence. A history of movement matters to us because it is part of our DNA as city dwellers.

Other than the Introduction and the Chapter 1 explores the geological factors that have influenced Singapore's urbanisation and land transport patterns throughout its history. That means starting my story from the birth of what is now known as Singapore Island about 8,000 years ago. I will also touch on the paucity of historical and archaeological records about roads and land transport for ancient Singapore up to the arrival of the British in 1819, and explore the reasons behind this paucity.

Chapter 2 spans 1819 to the arrival of the rickshaw in 1880. During this period, the town of Singapore's grid road network and Singapore Island's trunk roads—channels of movement that would last for at least 150 years—were laid down. Set in stone, too, were a British road and placenaming system, and a bureaucratic framework for road building and maintenance.

Chapter 3 covers 1880 to the end of World War I in 1918. Over these four decades, Singapore's streets were transformed by a flood of new methods of movement—rickshaws, trams, motor cars, motor buses, and more.

Chapter 4 covers only 23 years, from 1918 to 1941; but during this time, Singapore entered the modern age, as motor cars overtook rickshaws as kings of the road. The rapid growth in the car population transformed Singapore traffic and forced the usually laissez-faire authorities to grapple with unprecedented forms of traffic management.

Chapter 5 spans the tumultuous 1940s, from World War II and the Japanese Occupation to

the years after the British resumed control of how to move." One way of answering the enduring Singapore. While a brutal occupation meant a general regression in transport "progress", there are intriguing "what-ifs" to be explored—from Japanese road names to Japanese plans for a highspeed bullet train from Korea to Singapore. All these never came to be because Nipponese rule over Singapore only lasted three-and-a-half years.

The decades from 1950 to the dawn of the 21st century are covered in chapters 6 and 7. Chapter 6 focuses on Singapore's "Urban Revolution", a state-engineered process that saw a new city—and channels of movement—rise above the ashes of the old; what has remained is as intriguing as what has changed.

Chapter 7 covers land transport and traffic, including the creation of mighty transport oligopolies operating multiple methods of movement, and the introduction of new layers of transportation—the MRT and expressways freeing millions from the centuries-old vagaries of congested trunk and arterial roads.

Finally, the Conclusion will identify presentday urbanisation, land transport, and traffic issues facing the city-state of Singapore, and draw on lessons learned from a history of movement to suggest panaceas to these real-world problems. Some of the solutions may sound radical, impossible even. They include expanding the MRT network, slashing the number of motor cars by two-thirds, and closing parts of the city to private cars. But these will be solutions borne from a history of movement that is at least 200 years old. Seen from such a broad perspective, these ideas represent not a break from history, but to the contrary, a continuation of history.

In 1956, American urban and transport consultant Wilfred Owen quipped: "Despite all the methods of movement, the problem in cities is question of "How to move" can be through the study of a history of movement.

AS A Singaporean, this book is my sincere contribution to a national narrative, a narrative that is hopefully fresh, illuminating, and practical at the same time. But while this narrative is a story unique to Singapore, I also hope the historical framework I have crafted—a history of movement—can be employed as a template to construct a history of any urban centre in the world, a history that traces continuities and patterns in urbanisation, land transport, and traffic over time; tackles urbanisation, land transport, and traffic issues as a whole; and proffers radical yet practical solutions to them.

Now is an opportune time to study urban and land transport histories in cities. In 1950, just 30 per cent of the world's population was urban, numbering close to 750 million people. In 2009, the number of people living in urban areas surpassed those living in rural areas for the first time. By 2050, two-thirds of the world's population will be urban—about 6.4 billion people, close to nine times that of 1950's urban population. As the globe's urban population grows, a history of movement will be needed more than ever to shed light on urban and land transport issues, not just in Singapore, but all over the world, from Manila to Mexico City, Tokyo to Toronto, Lagos to London.

BUT BACK to High Street in Singapore. When Lieutenant Ralfe was overseeing its construction in 1819, it was sited inside the confines of an ancient town that existed 500 years before, in the 14th century. However, the British never found any traces of roads that once crisscrossed this town, giving us little understanding of a history of movement in Singapore before the British arrived in 1819. Why was this the case?

Was it also a coincidence that the ancient town of the 14th century and the British settlement of the 19th century both began in the same part of Singapore Island, an area in the south of the island bounded by the Singapore River and Bukit Larangan? Was it down to human choice or the exigencies of physical geography? The next chapter will explore these questions and set the stage for the dawn of a history of movement in Singapore.

CHAPTER 1
Prehistory to 1819: Lost Tracks

THE STORY of Sang Nila Utama is common folklore in Singapore. It first appeared in the *Sejarah Melayu*, or *Malay Annals*, a piece of classical Malay literature composed sometime in the 1500s.¹ In it, Sang Nila Utama was a prince from Palembang, Sumatra, then the raja of the island of Bintan. One day, seized by wanderlust, he and his entourage travelled to the neighbouring island of Batam. There, "looking across the water he saw that the land on the other side had sand so white that it looked like a sheet of cloth". He was told the sand was "the land called Temasek". Of course, he set sail for it. The year was 1299.

Sang Nila Utama nearly did not reach his destination, because a storm disrupted his ship. Throwing overboard most of the luggage did not appease the raging seas, until the raja did the symbolic thing by throwing out his crown. That calmed the seas and ensured he completed the journey, which takes merely an hour by ferry today.

Thereafter, Sang Nila Utama and his attendants "went inland for sport on the open ground at Kuala (Mouth of the River) Temasek". Then:

... they all beheld a strange animal. It seemed to move with great speed; it had a red body and a black head; its breast was white; it was strong and active in build, and in size was rather bigger than a he-goat. When it saw the party, it moved away and then disappeared.

The curious raja was told that the strange animal was a lion; since it symbolised strength, courage, and leadership, Temasek was worthy of establishing a new kingdom. Sang Nila Utama decided to act upon this advice, naming his kingdom Singapura—Sanskrit for "Lion City". He became the first of five rajas to rule Singapura for the next century or so. Today, the Malay name for Singapore is still Singapura.

Sang Nila Utama spotted his creature near the mouth of the River Temasek, a river that shared its name with the island. As the island was subsequently known as Singapura, the river was probably the Sungei Singapura, or Malay for "Singapore River". Since the north bank of the Singapore River was on higher ground than the marshy south bank, the open ground where Sang Nila Utama went for sport was probably Empress Place today. That means his ship docked at the original coastline just north of the Singapore River, which presently runs lengthwise down the middle of the Padang. Whether the Sejarah Melayu is history, myth, or somewhere in between, the story of the raja from Palembang and the lion-creature is the earliest detailed account of what is now Singapore Island.

It is usually taken for granted that Sang Nila Utama made landfall in the southeastern part of Singapore Island, by the Singapore River. Why not the north or west of Singapore Island, or by the banks of another river? His journey and eventual arrival in Singapore were determined by

the waxing and waning of an ice age, the rise and fall of seas, and the power of rivers in creating new land.

THE CREATION OF AN ISLAND

FOR MOST, if not all of human history, Singapore's fate has been intertwined with that of the sea. "Temasek" is probably old Javanese for "Sea Town". The island lies at the southern tip of the Malay Peninsula, conveniently at the point where the monsoons meet, at the confluence of maritime trade routes connecting the great empires of the Middle East, India, and China, commanding the southern entrances to the Straits of Malacca and the South China Sea. But this wasn't always the case. Fourteen thousand years ago, Singapore was a thousand kilometres from the sea.

At the time, large swathes of the northern hemisphere were covered by ice sheets and glaciers. The world was—and is—in the midst of an ice age that had started two million years before and has never truly ended. The past two million years have been made up of periods of "glacials" and "interglacials"—alternating cold and warm climate, and expanding and retreating ice sheets and glaciers. Fourteen thousand years ago, the Earth was at the tail-end of possibly its 20th glacial period, one which had begun about 100,000 years before.

With a significant proportion of the Earth's waters locked in ice, sea levels then were 140 metres—or roughly 45 storeys—lower than present-day sea levels. Much of the continental shelves of Southeast Asia and Australia that are now under water was dry land instead. Present-day mainland Southeast Asia, Sumatra, Java, Borneo, and part of the South China Sea was one land mass called Sundaland, named after the Sunda Shelf. Sundaland was roughly twice the size of present-

day India. To the east of Sundaland lay Sahuland, comprising present-day New Guinea, Australia, and the sea that now separates them. Fourteen thousand years ago, there would have been no Singapore Island—just low-lying hills covered by jungle in the middle of Sundaland.

The world's 20th glacial period in two million years came to an end, to be replaced by an interglacial period marked by a warmer climate and retreating ice sheets. Over the next 6,000 years, the Earth thawed. From between 14,000 and 8,000 years ago, three rapid ice melts resulted in three episodes of sudden, cataclysmic flooding.

As thousands of square kilometres of ice sheets melted, sea levels kept rising. In what is now Southeast Asia, an area the size of present-day India was flooded. Mighty rivers, jungle-covered valleys, and ancient human settlements disappeared forever under rising waters. By around 6,000 BCE, new intercontinental seas had appeared. The Straits of Malacca, the Karimata Strait, the Java Sea, and the South China Sea took shape. These water bodies forged the new islands of Sumatra, Java, and Borneo from the Malay Peninsula.

The rising seas also created a narrow waterway just a kilometre wide separating a tiny island from the rest of the Malay Peninsula. The waterway is now known as the Straits of Johor, and the island is now Singapore. The sea level then stabilised. If it had risen another 30 per cent, much of Singapore would have been inundated. If it had stabilised at a level 30 per cent lower, Singapore, Batam, and Bintan would have remained part of the Malay Peninsula. The extent of post-glacial flooding created the right geographical conditions for Singapore's destiny as a maritime port of call, but also stopped short of erasing its existence altogether. Singapore, for all its hills, remains very low-lying. Its tallest natural point is 164 metre-tall

Bukit Timah Hill in the centre of the island.

The transformation of the geography of what was formerly a solid landmass opened it to maritime trade, travel, and that age-old cultural activity so misunderstood by the Europeans—piracy. It also led to the evolution of maritime communities such as the Orang Laut, Malay for "Sea People", comprising the Orang Seletar, Orang Biduanda Kallang, and Orang Gelam, among others. However, because the Straits of Johor was so narrow, Singapore's southern coast—which faced the open sea—was more welcoming to passing ships. Most international voyagers came to Singapore from the south—much like how Sang Nila Utama did in 1299.

At the formation of Singapore Island at 6,000 BCE, most of its geology had already taken shape. The island's oldest rocks lie in the central and northern parts-most of them a solid core of Bukit Timah Granite, formed by the cooling and solidification of magma or lava between 250 and 235 million years ago. Structurally, the Bukit Timah Granite is part of a seam of granite running 200 km north from Singapore to northern Johor. Within Singapore itself, the granite runs from present-day Woodlands in the north to Bukit Timah Hill and the gentle hills surrounding present-day Orchard Road to the south. A small area west of the Bukit Timah Granite, including the cluster of hills that gave rise to the place name Bukit Panjang, or Malay for "Long Hill", has older rocks called Gombak Gabbro.

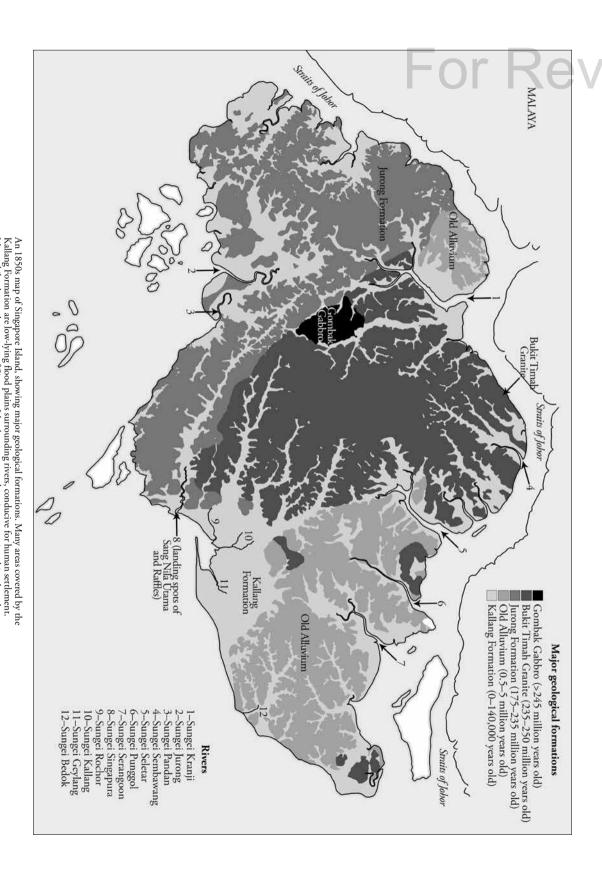
Then, between 235 and 175 million years ago, when dinosaurs of the Late Triassic and Early Jurassic periods roamed the Earth, sediments from weathered rocks were deposited into a shallow marine basin west of the granite core, and lithified into rocks. They became the present-day Jurong Formation, consisting mostly sedimentary rock.

The Jurong Formation runs from the northwest of the island to the southeast, from Sarimbun through Tengah, Clementi, and Queenstown, ending near Telok Blangah.

Fast forward to between 5 million and 500,000 years ago, when rivers draining southern Johor into the Straits of Johor—possibly ancestors of the present-day Sungei Skudai and Sungei Johor—did their work. Alluvium—deposits of clay, silt, and sand—dumped by a river to the west formed solid land which is now part of Lim Chu Kang. More deposits left by another river to the east now make up much of northeastern and eastern Singapore, such as Punggol, Sengkang, Tampines, Bedok, and Changi.

Finally, some of the youngest and most lowlying areas of Singapore Island, called the Kallang Formation, were formed between 140,000 years ago and the present, a period within which the world's last glacial period came and went. These were flood plains surrounding present-day river systems, many of which have been canalised or dammed into reservoirs. The river systems include the Kranji, Jurong, Pandan, Sembawang, Seletar, Punggol, Serangoon, Bedok, Kallang, Rochor, Geylang, and Singapore. Throughout human history, settlements and civilisations are usually born on low-lying flood plains as the river is a source of water and transport, and the land is fertile for farming. Since the southern coast of Singapore Island was more welcoming to passing ships, then the rivers there were natural candidates for maritime settlers.

However, the southeastern coast was less dangerous for ships than the southwestern coast. The seas to the southwest of Singapore Island were replete with smaller islands and coral reefs—not so for the seas to the southeast. That is probably why the first recorded human settlements on Singapore



began in the southeast of the island, and that was probably why Sang Nila Utama made landfall by what is now the Singapore River.

Hundreds of years later, Stamford Raffles would read about the story of Sang Nila Utama in the *Sejarah Melayu*, and attempt to retrace his journey, sailing towards Singapore Island from the south. He would dock in the same area as did Sang Nila Utama, and the settlement he founded would spread outward and cover whatever remained of Sang Nila Utama's settlement. Singapore's history of movement may have begun with human agency, but it was human agency within geographical and geological parameters.

Ever since, geography and geology would also influence much of modern Singapore's urban and land transport evolution. For example, the relative hilliness of the central and western parts of Singapore Island, which comprise older rocks, as compared to the flatter terrain of the southeastern and eastern parts, would subtly skew urbanisation and road development patterns to the southeast and east of the island. Hence, some of the oldest parts of built-up Singapore are presently in the southeast of the island.

Sang Nila Utama and his four successors chose a hill that commanded a good view of the sea to build their palaces; a hill probably known as Bukit Larangan then, and now known as Fort Canning Hill. A settlement thrived at the foot of the hill, stretching to the sea and to the banks of the Sungei Singapura. It lasted until the end of the 14th century, when it was sacked by either one of two regional powers—the Majapahit Empire to the south, or the Siamese to the north. Today, almost no traces of buildings or roads in this settlement—or any other settlement predating the arrival of the British in 1819—remain. To better elucidate the reasons behind this almost

total absence, let us briefly visit a place 4,000 km away that has retained some of its ancient roads.

THE NORTHERN Indian city of Fatehpur Sikri was founded in 1569, 270 years after Singapura. After a string of military victories, Mughal emperor Akbar ordered its construction as his new capital, about 35 km from the existing capital of Agra. Fatehpur Sikri served as such from 1571 to 1585, until the exhaustion of the spring-fed lake that was the city's water supply. It was planned as a walled city, a showcase of Mughal architecture, replete with royal palaces, courts, and mosques.

Over two years from 1980 to 1981, archaeologists excavated roads that originally ran within Fatehpur Sikri. These included the city's main road, complete with crossings with four secondary roads. The main road was paved, about a kilometre in length, and as wide as a present-day four-lane road; each secondary road was as wide as a present-day one-lane road. About three centuries old, they were feats of Mughal engineering, built to outlast the empire itself.

The main road varied in thickness from 35–50 cm, comprising stone blocks set in mortar such that each block had its thinner or sharper part facing down, maximising the surface area of stone bearing the load of pedestrians or vehicles above. This increased the strength and stability of the roads. The road builders had also chosen stronger and harder stones that were not easily eroded, and they had added lime to the mortar to make the entire layer waterproof. As a whole, the roads were designed to withstand constant weathering and traffic stress for hundreds of years. Consequently, archaeologists could unearth the original roads today for historians to construct a plan of 16th-century Fatehpur Sikri.

Such a scrutiny of Fatehpur Sikri's long-lasting roads helps us understand why ancient Singapura's roads have not survived to the present day. The Mughal Empire—which at its height in the 17th century controlled most of modern-day India and ruled 150 million subjects, and fostered advances in the arts, literature, architecture, science—and engineering. Emperor Akbar himself excelled as an engineer and technician. It is no wonder Fatehpur Sikri's roads were built with excellent engineering.

In contrast, ancient Singapura was a largely autonomous entity with a population of possibly no more than 10,000. It arose during a transitional period in regional geopolitics, when the declining Sumatra-based Srivijaya Empire was being supplanted by a rising Java-based Majapahit Empire. As a result, ancient Singapura was never directly ruled by either; it also never fell under direct Siamese influence. In the 1500s, it came under the domain of the Johor Sultanate, which at its height included Pahang, Johor, and the Riau and Lingga Islands. However, even during the sultanate's golden age, Johor's achievements were in the areas of trade and Islamic studies, not engineering. Hence, Singapura had no longstanding tradition of scientific or technical achievement to draw upon. Its roads were most probably no more than dirt tracks laid down with little technology. Moreover, kampungs—a traditional form of settlement throughout the Malay Archipelago—usually possessed only foot paths between houses, with no proper access roads, unlike ancient European or Chinese towns; foot paths were easily washed away by floods or overrun by undergrowth. Hence, compared to Fatehpur Sikri's impressive transport-related archaeological record, ancient Singapura's pales in comparison.

There is another critical factor severely limiting the longevity of Singapura's roads—or for that

matter, any man-made structure on the island. Singapore lies just a degree north of the Equator, and receives some of the heaviest rainfall in the world—three times the annual rainfall of Fatehpur Sikri. The ravages of an equatorial climate, coupled with an abundant growth of fauna, mould, and insect populations, have obliterated many an archaeological record in the Malay Peninsula.

As for the Orang Laut who inhabited the river banks and coasts of Singapore Island for hundreds, maybe thousands, of years, there was no need for roads in the first place. Rivers and the sea were their channels of movement, using wooden boats—both of which have left almost no archaeological record.

When the archaeological record is found wanting, we have to fall back on scrutinising the literary record. However, literary descriptions of Singapore before the arrival of the British in 1819 do not contribute much towards a history of movement—there is almost no mention of urban development, roads, land transport, or traffic. The Orang Laut had no literary tradition to speak of, so they left no written records.

As early as the 1300s, settlements on Singapore Island were already mentioned in Chinese and Javanese records. One such extensive description lies in *Daoyi Zhilue*, or Mandarin for "A Brief Account of Island Barbarians", penned in 1349 by Wang Dayuan, a merchant from Yuan China. The book is a compilation of his travels throughout Southeast Asia and a treatise on commerce in the region. Wang describes Banzu, probably the kingdom of Singapura centred on present-day Fort Canning Hill; he also describes a settlement on the southern coast of the island—presently the western entrance to Keppel Harbour—inhabited by "Danmaxi (Temasek) barbarians". However, as Wang was possibly preoccupied by trade and

economic issues, he focuses on agriculture, soil, and climate; the types of goods traded; and how the "Danmaxi barbarians" were "addicted to piracy". There is no mention of patterns of settlement, roads, or land transport.

The Sejarah Melayu of the 1500s does not devote much space to describing the kingdom of Singapura. It simply says: "... Singapura became a great city, to which foreigners resorted in great numbers so that the fame of the city and its greatness spread throughout the world." Again, there is no description of urban development or roads up to the demise of the kingdom.² The same pattern follows for its physical descriptions of the kingdom of Malacca, which are limited to the names of its neighbouring kingdoms, population size, and the distance the city extended along the sea (which was one league, or about 5.5 km/3.4 miles).

Portuguese explorers and mariners who wrote about Singapura and Malacca in the 1500s and 1600s were preoccupied with the political intrigue of the region, royal lineages, and the riches of Malacca, which fell under Portuguese control in 1511. For example, the *Suma Oriental*, a book written by apothecary Tome Pires on Asian trade, described Malacca in terms of physical landmarks at its boundaries, the rivers and farms within its domains, the number of men in its army, the territories which paid tribute to it, and of course the trade it carried out.

Further destruction befell Singapura in 1526 and 1613. First, the Portuguese wiped out a town at the mouth of the Sungei Singapura, possibly because of its association with the defeated Malacca Sultanate. Then, nearly a hundred years later, the Acehnese repeated the feat to strike against their rival, the Johor Sultanate. But this did not spell the end of strife for the island. The *Hikayat Siak*, a book tracing the rise of the Siak

Sultanate in central-eastern Sumatra in the 1700s, briefly mentions a battle on the Sungei Singapura in 1767 between forces from Siak and Johor, but it is merely a footnote in history.

Another factor contributing to the sparse knowledge of movement in precolonial Singapura was the absence of a conventional cartographic tradition among the Malays and Orang Laut. Instead, such pictorial depictions were only executed by Chinese and European visitors to the Malay Peninsula and Singapore—and these were few and far between. Detailed maps of Singapore showing off its roads and physical landmarks only appeared after 1819, as the British became interested in mapping its new territory for the purposes of economic exploitation.

What do we know then, that can contribute to a history of movement in Singapore before the British arrived? Not much at all. After Sang Nila Utama decided to set up a new kingdom in 1299 and not return to Bintan as its raja, he composed a message for his adoptive mother in Bintan: "I am not coming back, but if you love me, please send me men, elephants, and horses to establish a city." She duly obliged. From this exchange, it is possible that in ancient Singapura, people walked on foot, or travelled on horses and elephants.

In 1604, Manuel Godinho de Eredia, a cartographer of mixed Bugis (an ethnic group from Sulawesi, part of present-day Indonesia) and Portuguese descent, drew a map of Singapura, one of the earliest maps to depict it in detail. Alas, there were no settlements or roads marked on the map. However, it had five place names: Tanlon Ru (Tanjong Rhu), Sunebodo (Sungei Bedok), Tanamera (Tanah Merah), Tanjon Rusa (Tanjong Rusa), and an island named Blacanmati (Pulau Blakang Mati). Tanjong Rhu is Malay for "Cape of Casuarinas", a reference to the casuarina trees

For Review

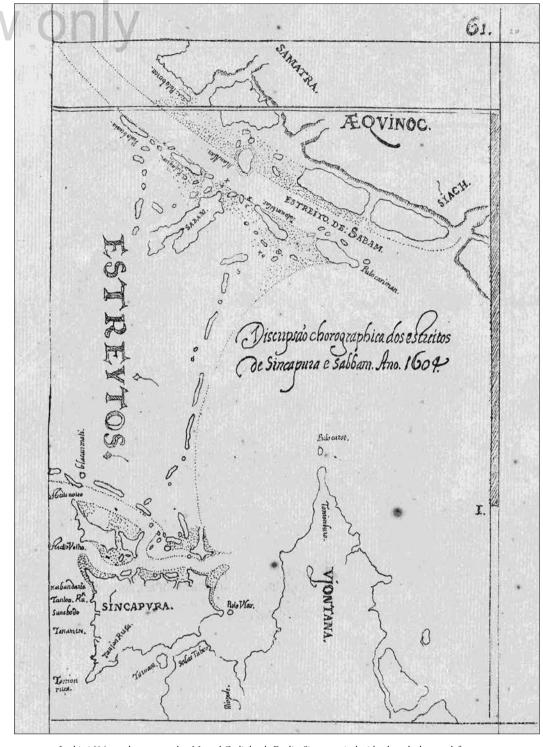
that grew along its beach. "Bedok" could refer to a large Malay drum called *bedoh*, used to sound the alarm or call Muslims to prayer. Tanah Merah is Malay for "Red Earth", a reference to red lateritic cliffs lining the east coast of Singapore Island, visible from the sea. Tanjong Rusa is Malay for "Cape of Deer". And Blakang Mati means "Behind Death", a possible reference to pirates, burial grounds, or spirits haunting the area. Other than the Sungei Singapura, these are possibly the five oldest place names in Singapore; the first three listed are still in use today.

Meanwhile, events in another part of the Johor Sultanate would have a future impact on Singapore. In the mid-1600s, gambier planting started in Sumatra and the west coast of the Malay Peninsula; the Malays planted gambier as a medicine and an ingredient for betel nut chewing. This was converted into a full-fledged industry in the 1730s, when a Bugis minister of Riau, Daeng Chelak, opened Bintan to immigrants from China. This was the first time Chinese farmers arrived en masse in the Malay Archipelago; it was also the first time pepper was cultivated alongside gambier. By the late 1700s, 10,000 Chinese had settled in Bintan, growing gambier for export to Java and China as a tanning agent. Gambier became a cornerstone of the economy of the Johor Sultanate and buttressed the power of the Bugis within the sultanate. However, as the 1700s drew to a close, the Johor Sultanate was in steady decline and the Dutch were encroaching to the south, from Sumatra and Java. By 1818, the Dutch occupied the Riau Islands, forcing the Temenggong, a Johor court official and maritime chief named Abdul Rahman (died 1825), to relocate himself and his followers to the north to a village in Singapura, near the mouth of the Sungei Singapura. A fitting location, because that

is near the site of Parliament House today.

Sources differ on when the Temenggong first set up this village—dates range from 1811 and 1812 to 1818. But the village—named Kampong Temenggong in his honour—was there when Raffles arrived in Singapura in 1819, with the Temenggong himself in residence. No map of the village was ever made, hence we do not know if Kampong Temenggong had any paved or named roads. The village was also founded on part of the original location of ancient Singapura, so we do not know if the village had destroyed any ancient structures, foundations, or roads.

On the eve of Raffles' arrival, other than Kampong Temenggong, there were several settlements on Singapura. To the north of the Sungei Singapura, by the sea, around where Kampong Glam is today, there was a village occupied by Bugis and Chinese settlers, and the Orang Gelam. The Orang Gelam were named after the gelam tree, or kayu putih, a tree native to Singapore and used for making medicine, furniture, and boats; the same tree later gave its name to Kampong Glam. Also, because of Singapura's proximity to Bintan, some Chinese planters had migrated from Bintan to Singapura, settling in the forested hills west of Kampong Temenggong with about 20 gambier and pepper plantations. Around the mouths of the Sungei Rochor, Kallang, and Geylang, there lived small communities of Orang Biduanda Kallang. Some Orang Laut still lived around the southern coast of Singapura, as Wang had described in 1349. In the north of the island, Orang Seletar lived along the banks and mouth of the Sungei Seletar, and in the northeast, there was a coastal village named Ponggol. It was said that Ponggol, or Punggol, means "hurling sticks at the branches of fruit trees to bring them down to the ground" in Malay.



In this 1604 map by cartographer Manuel Godinho de Eredia, Singapura is the island on the bottom left corner. Starting from the bottom of the map, the first four place names on the extreme left are Tanjon Rusa (Tanjong Rusa), Tanamera (Tanah Merah), Sunebodo (Sungei Bedok), and Tanlon Ru (Tanjong Rhu). The eighth name is Blacanmati (Pulau Blakang Mati). (Courtesy of National Library, Singapore [Accession no.: B03013605G])

CHAPTER 1 Prehistory to 1819: Lost Tracks 29



These were more or less the extent of human habitation in Singapura in 1819—in all, the total population numbered no more than 1,200.

In 1822, Singapore's second Resident, John Crawfurd (1783-1868), studied the terrain on which the ancient emporiums of Temasek and Singapura once stood. By then, most traces of these settlements and whatever roads they possessed had disappeared under the onslaught of hundreds of years of rain and vegetation. All Crawfurd found were the remains of foundations of buildings on the northern and western sides of what is now Fort Canning Hill, an earthen wall 2.5-3 metres in height running from the hill to the coast, and at the mouth of the Singapore River, a large piece of sandstone with ancient script on it. The British called the wall the "Old Lines of Singapore", which they believed was part of the limits of the ancient town of Singapura; meanwhile, the large piece of sandstone was blown up in 1843, leaving behind a surviving fragment called the Singapore Stone. Crawfurd did not find any trace of roads.

Limited modes of land transport, a mere handful of place names and villages, part of the boundary of an ancient settlement—these are all that contribute to a history of movement before the British arrived in 1819. Primitive engineering technology, a harsh climate, an absence of a cartographic tradition, and the preoccupation of foreign visitors with economics and politics, are factors that impede efforts to piece together a precolonial history of movement. It is because of these that High Street is one of Singapore's oldest roads, if not the oldest, even though it is only about 200 years old; it is also because of these factors that a detailed history of movement only becomes possible in the last 200 years.

Yet the British could have settled in Singapore a hundred years before 1819—and it could have

been a Scot, not an Englishman, to claim credit for the founding of modern Singapore. Scottish sea captain Alexander Hamilton was a good friend of Johor's Sultan Abdul Jalil; in 1703, Hamilton called on the sultan on his way to China. The latter then:

> ... treated me very kindly, and made me a present of the island of Singapore, but I told him it could be of no use to a private person, though a proper place for a company to settle a colony on, lying in the centre of trade, and being accommodated with good rivers and safe harbours...

This remains one of the big what-ifs of Singapore history—what if Hamilton had taken up the Sultan's offer? With a hundred-year headstart, predating the arrival of a Temenggong or Chinese planters, could Singapore's history of movement have taken a different turn?

CHAPTER NOTES

- 1 There are 32 variant editions of the Sejarah Melayu, and studies by Dutch and Malay scholars have confirmed that Raffles MS 18 is the oldest version. According to Malaysian historian Cheah Boon Kheng, the first author of the Sejarah Melayu "outlived the capture of Malacca by the Portuguese in 1511, wrote his text up to the year 1535 and died sometime after 1535". The text was subsequently passed down to other writers and copyists, which then became Raffles MS 18. I quoted from the English translation of Raffles MS 18 by C. C. Brown, first published in 1952.
- 2 C. C. Brown's translation of Raffles MS 18 mentions "a man of Pasai called Tun Jana Khatib... (walking) through the streets (of Singapura)". Unfortunately, there is no further description of these streets. John Leyden's translation of the Sejarah Melayu mentions Tun Jana Khatib "walking in the market-place of (Singapura)". Again, there is no further description of the area.

CHAPTER 2
1819 to 1880: Feet and Hooves

IN 1819, the British obtained permission from the Sultan of Johor to set up a trading post in the southeastern part of Singapore Island. Over the next six decades, the settlement, also named Singapore, grew from a village of about 150 souls into a bustling town of 95,000.1 A colonial porttown of largely Asian immigrants ruled by a tiny group of Europeans, built along British lines and with British channels and methods of movement, was transplanted onto an island deep in the heart of the Malay world, effacing centuries of Malay and Orang Laut place names and channels of movement. Before the arrival of the British, transport within Singapore Island was mainly river and sea-based. British authority and large-scale Chinese immigration made possible a permanent transition to a land-based transport network.

The Town of Singapore was concentrated along a four-kilometre stretch of coastline in the southeast, extending no more than a kilometre inland. In 1878, American zoologist William Hornaday visited it, observing:

Singapore is certainly the handiest city I ever saw, as well planned and carefully executed as though built entirely by one man. It is like a big desk, full of drawers and pigeonholes, where everything has its place, and can always be found in it. For instance, around the (Esplanade) you find the European hotels—and bad enough they are, too; around Commercial Square, packed closely together,

are all the shipping offices, warehouses, and shops of the European merchants; and along Boat Quay are all the ship chandlers. Nearby, you will find a dozen large Chinese medicine shops, a dozen cloth shops, a dozen tin shops, and similar clusters of shops kept by blacksmiths, tailors and carpenters, others for the sale of fruit, vegetables, grain... All the washerwomen congregate on a five-acre lawn called Dhobi Green, at one side of which runs a stream of water, and there you will see the white shirts, trousers, and pajamas of His Excellency, perhaps, hanging in ignominious proximity to and on a level with yours. By some means or other, even the Joss houses (Chinese temples), like birds of a feather, have flocked together at one side of the town. Owing to this peculiar grouping of the different trades, one can do more business in less time in Singapore than in any other town in the world.

Hornaday's observation of the Town as "well-planned" and "carefully executed" was astute, because its core had been immaculately designed as a grid plan, the handiwork of a committee guided by the vision of one man. However, as decades passed, the strain of breakneck economic and population growth saw the Town outgrow its original plan, even though the original principle of "roads at right angles to one another" was not completely forgotten.

Outside the Town, a trunk road system stretched to most corners of Singapore Island, connecting the Town to plantations of pepper, gambier, nutmeg, and tropical fruits, and 36,000 rural settlers. It was mostly the Chinese who set up villages and market towns along these trunk roads, becoming almost an authority unto themselves, an authority expressed in the names of some of these villages. Closer to the Town, numerous Europeans set up their own little agricultural fiefdoms, leaving behind legacies in the form of plantation houses and driveways. It was the British who first mapped the interior of the island, all the better to parcel out and trade land, that bountiful commodity in the colonial period. As a result, many places in Singapore Island were given "official" names, some very English, others not so; other Malay or Orang Laut place names which were never made known to the surveyors were lost forever. However, far from everyone in Singapore Island subscribed to the British road and place naming system; Chinese and Indian communities had their own unique methods of "mapping" and negotiating the same urban space they shared with the Europeans.

Most of the time, the roads were far from world-class, and when it rained heavily many turned to mud, but for the most part they were built and maintained by an unlikely source of labour—a proud and independent posse of Indian convicts. Over time, an official bureaucracy was established to handle the constant demand for road maintenance. Meanwhile, for the average inhabitant of Singapore, travelling remained a sweaty, laborious affair. Transportation choices other than walking were sparse. These included carriages and carts pulled by horses, donkeys or buffaloes; and the bicycle and horse-drawn omnibuses in later years. Only the rich had their own "private transport" (the term did not exist at the time) in the form of horse carriages. This

state of affairs kept the Town of Singapore compact and walkable.

THE EARLY DAYS OF A NEW SETTLEMENT

TO UNDERSTAND how the British settlement of Singapore developed the way it did in the years after 1819, we need to recognise several factors: firstly, the British were around largely because of a thirst for trade and a quest for maritime dominance; secondly, the British initially gained only permission to set up a port—not full sovereignty—over just one per cent of Singapore Island's land area; thirdly, the handful of individuals who oversaw the settlement's development in its early years had grand ideas, lofty ideas worthy of kingdoms and empires, but did not see eye to eye, and never stayed long enough to see their visions realised.

By 1818, the British had been maritime trade rivals with the Dutch for more than two centuries. The Dutch, acting through the Dutch East India Company, a chartered company established in 1602, controlled much of the spice trade in the Malay Archipelago. Ports such as Batavia (present-day Jakarta) and Malacca ensured they maintained a strong grip on shipping along trade routes between India and China. The British, acting through the British East India Company (EIC), had ports at Penang and Bencoolen (present-day Bengkulu in Sumatra), but they were not as well-placed to attract shipping.

Enter Sir Stamford Raffles. Born in 1781 at sea, the 37-year-old already had a prolific career with the EIC. Starting at the lowly position of clerk at age 14, the precocious teenager who studied at night by candlelight soon distinguished himself through his industriousness, energy, and later, mastery of the Malay language and local

conditions. Over the next two decades, he excelled in assignments to Penang and Malacca, led a successful military invasion of Java, was knighted for completing a monumental 500-page tome called *The History of Java* in just 17 months, and dispatched to the malaria-ridden backwater of Bencoolen as lieutenant-governor.

But Raffles was not content with lying low. He realised the importance of establishing a new port for the EIC that would succeed in challenging the Dutch monopoly of the seas. His solution was to look somewhere around the tip of the Malay Peninsula. At the end of 1818, he managed to convince his superior, the governor-general of British India, Francis Rawdon-Hastings, to approve an expedition to the southern end of the Straits of Malacca. The instructions were vague, and that suited Raffles.

In January 1819, Raffles set sail from Penang down the Straits of Malacca. First, he surveyed the Karimun Islands off the island of Sumatra. Then he set his eyes on the island of Singapura, the mythical place he had read about in the *Sejarah Melayu*. He realised its suitability as a port—it lay smack along the key India—China trade routes, yet the Dutch were nowhere to be found—yet. The southern part of the island possessed a river deep enough to accommodate a harbour, with plenty of wood and fresh water. Even better, the island was part of the decaying Johor Sultanate, which was weak and open to exploitation, thanks to an ongoing succession dispute.

In 1812, when Johor's Sultan Mahmud Shah breathed his last, his younger son Abdul Rahman (1780–1830) was appointed successor, bypassing the older son Hussein Shah (1776–1835) as he was away in Pahang getting married at the time. Abdul Rahman had the powerful Dutch as backers, so Hussein Shah quietly opted for exile in the Riau

Islands. Seven years on, Raffles decided to draw him out, take him to Singapura, and declare him the rightful Sultan of Johor in exchange for permission to set up a trading post on the island. It was controversial and daring, and bound to infuriate the Dutch, but a brilliant political manoeuvre only Raffles would have dared pull off.

So it came to be that a humble British squadron of six ships, led by Raffles and former Resident of Malacca William Farquhar (1774–1839), docked at the southeastern coast of Singapura on 28 January 1819. Raffles and his men landed on the north bank of the Sungei Singapura, the river he identified as the location for a port. The north bank was relatively drier and on higher ground than the south bank, which was marshy and flooded frequently. The north bank was also where the wooden houses of Kampong Temenggong stood.

Nine days later, on 6 February 1819, Raffles signed a Treaty of Friendship and Alliance with Hussein Shah and Temenggong Abdul Rahman. The treaty spelled the name of the island as "Singapoora", but in a proclamation Raffles issued the same day, presumably to the outside world, he named the island "Singapore". The Johor Sultanate's Singapura had become the EIC trading post of Singapore; the new port was no longer by the Sungei Singapura, but the Singapore River.

Hence, from the beginning, the settlement of Singapore hugged the Singapore River and the coastline north and south of the river. The thickly forested interior was largely left untouched, either too daunting or not of interest to early settlers and traders.

Raffles is often credited as the founder of modern Singapore. But it was Farquhar, appointed the first Resident of Singapore, who saw the island through the chaos of its early years. Just one

day after the treaty was concluded, Raffles left matters in Singapore to Farquhar, and set sail for Penang. For the next three years he spent fewer than 30 days in Singapore, while Farquhar ran the show. That was fateful for the settlement's subsequent urban and road development. For while Raffles was an avid planner with grandiose ideas, a micro-manager who worked tirelessly and a man determined to get his way, Farquhar was more laissez-faire and easygoing in running the settlement; he was more approachable and willing to compromise, seek a middle way and go with whatever worked for the moment. In the words of Munshi Abdullah (1796-1854), Raffles' tutor in Malay and a good friend of both Raffles and Farquhar, it was in Farquhar's nature to listen to a man's complaint, no matter how poor or lowly the man, and give "advice and direction until the man's mind was set at rest". Such a measured, flexible approach probably secured Singapore's survival in its first three years, and ensured it developed in a more organic manner than Raffles would have allowed if he had been present.

In the years following its founding, thousands flocked to the port to engage in business. Its growth was nothing short of phenomenal. In 1819, just 120 Malays and 30 Chinese lived in the area around the Singapore River. By 1821, the port's population had grown 31 times to 4,727, and by 1824, more than doubled again to 10,683. Some initially hailed from Malacca as they had prospered under Farquhar's rule as Resident from 1803 to 1818. Many more came from the Middle East, southern India, southern China, and all over the Malay world—"a conglomeration of all eastern and western nations".

The port of Singapore turned into a cash cow. By 1823, the value of Singapore's imports and exports exceeded \$13 million, more than that of Penang and Bencoolen combined. Yet running the port cost only 12-14,000 pounds a year (in contrast, Bencoolen bled 100,000 pounds a year). From 1819 to 1826, Singapore was run by a skeleton team of a Resident—directly answerable to the EIC in British India—two assistants, and two or three clerks. Just half a dozen men oversaw almost all civil and political duties for the settlement, including the administration of justice, police, and finance.

The settlement grew from the Singapore River and High Street to the foothills of nearby Bukit Larangan—very much the same area covered by 14th-century Singapura. This time, however, the British mapped the settlement in great detail, recording individual buildings, villages, roads, and natural features, with place and road names they either bequeathed or thought the native population used. For the first time in Singapore's history, there was a cartographical record of its human settlements. However, the maps were made from a British point of view and reflected British interests and biases; place and road names were in English, English transliterations, or English misspellings.

The earliest surviving landward map of the port of Singapore was the Bute Map, drawn sometime between 1819 and 1820. On the map, most of "Singapore Town" occupies a narrow strip on the north bank of the Singapore River between Bukit Larangan and the sea. This was presumably prime riverfront property. Singapore Town had grown up around the old Kampong Temenggong, absorbing it, so in the midst of Singapore Town lay the Temenggong's Palace.

To the north, a large patch of land had been cleared for military cantonments for about 150 EIC sepoys and artillerymen; it lay between High Street and the Old Lines of Singapore 500 metres north.

The cantonments were accompanied by officers' tents, a parade ground, magazines, and stores. On a small knoll by the sea, Lieutenant Henry Ralfe had erected a battery of 12-pounder guns to protect the settlement from a Dutch attack from the sea; this is near the middle of the Padang today.

Beyond the Old Lines to the north, there were nine allotments that made up the "Proposed Site of a European Town". In June 1819, when Raffles was away, he wrote orders to Farquhar to reserve the north bank of the Singapore River for purposes of governance, while allocating this European Town and the seafront from the Old Lines to the Rochor River—dubbed the North Beach—for European merchants. Alas, the seas off North Beach were rough and too shallow for large ships. Merchants such as Alexander Guthrie threatened to leave Singapore if they were not allowed to build their offices and godowns elsewhere. Farquhar gave in, and consequently the merchants mostly lived and worked on the north bank of the Singapore River, in Singapore Town, while the European Town remained a "proposed site". North of the European Town, about 1.5 km from the Singapore River, there was a "Bugis Town", a precolonial village with Bugis, Chinese, and Orang Gelam dwellers. Nearby stood the Palace of Sultan Hussein, possibly made of timber and thatch.

On the south bank of the Singapore River sat a "Chinese Town". It was low-lying, muddy land undesirable to the Europeans, where the rest of the Chinese settled. A bridge was proposed to span the Singapore River and connect Singapore Town to this Chinese Town; it was built after the Bute Map was drawn. South of the mouth of the Singapore River, there was a small cape with a promontory on it, called Tanjong Singapura. A small path ran by the promontory; it was known as Lorong Tambangan. "Lorong" is Malay for "Lane"; Assistant Engineer of Singapore, overseeing the

"Tambangan" could have been a corruption of tambatan, Malay for "mooring", a reference to boats moored by the river mouth.

The Bute Map also marks out several unnamed roads that bear the location and shape of presentday roads. Other than High Street, these roads lie north of Singapore Town, in the space reserved for military cantonments. They include what would later become Coleman Street and Hill Streetsome of the oldest roads in Singapore today. There was also another narrow path running north from the Old Lines to Bugis Town; it is part of Beach Road today. Finally, there were more roads on the slopes of Bukit Larangan, but they do not align with present-day roads and have disappeared.

By May 1821, about 24 km of roads had been made, according to the Anecdotal History of Old Times in Singapore, a book compiled by newspaper owner Charles Buckley (1844-1912) in 1902. Half of these roads were "carriage roads" 12-15 metres wide. The roads "extended from the (Singapore River) to Rochor; round the hill, afterwards levelled (possibly Tanjong Singapura), where Circular Road is now; and out to Selegie, which is no doubt what is now called Selegie Road". Buckley also listed the length of specific roads and their corresponding widths, and even the cost of construction—\$6,447. Unfortunately, these roads were never named, although each was categorised as one of four types: carriage road, horse road, horse path, and footpath. Carriage roads were probably roads wide and strong enough to accommodate the movement of horse carriages, while horse roads could only accommodate horses; paths were probably narrower than roads and were separated into those that were strong enough to handle horses and those that could only handle human feet.

From 1819 to 1821, Lieutenant Ralfe was the

Sultan's **Bugis Town** Site of the European Old Lines of Singapor Freshwater River ·28-gun battery Sepovs' Barracks Military Bukit Larangan antonments Singapore Town Rocky Point -Tanjong Singapura Lorong Tambangan Sultan's Village Key A-Proposed bridge B-Temenggong's Palace C-Chinese Town

A drawing of the Bute Map, the earliest surviving landward map of the port of Singapore, produced sometime between 1819 and 1820. Hills are marked out with dotted lines. (Source: Eisen Teo)

construction of all roads and buildings. After he left for Calcutta on grounds of ill health, another officer from the Bengal Artillery took his place. He was Lieutenant Philip Jackson (1802–1879).

A TOWN PLAN FOR 150 YEARS

WHEN RAFFLES returned to Singapore for the third and last time on 10 October 1822, he became unhappy at what he perceived as the haphazard growth of the settlement. In a move uncharacteristic of colonial officials at the time, he decided to micro-manage the future development of the port. Farquhar had largely allowed the settlement to grow according to the whims of its residents. Raffles wanted a detailed plan to the growth, separate zones for different races and ethnic groups, and designated spaces allocated for public buildings, European merchants, and a mercantile quarter. As the settlement was now three years old, many things would have to be reworked literally from the ground up. He wanted a master plan for a "new" settlement of Singapore.

Hence, just a week after his return, on 17 October 1822, Raffles appointed a Land Allotment Committee to oversee the reallocation of land. It comprised three men, all friends of Raffles: surgeon and naturalist Dr Nathaniel Wallich (1786-1854), superintendent of Bencoolen's spice plantation Dr James Lumsdaine, and Bencoolen's harbour master Captain Francis Salmond. On 4 November, he established a Town Committee to draw up the master plan. It comprised Captain Charles Edward Davis of the Bengal Native Infantry, Assistant Resident Samuel George Bonham (1803-1863), and Alexander Laurie Johnston (died 1850), one of Singapore's most prominent merchants at the time. He also appointed Assistant Engineer Lieutenant Jackson to make maps of the master plan. Other reputable members of the European

community at the time, such as surgeon Dr William Montgomerie (1797–1856) and architect and surveyor George Drumgoole Coleman (1795–1844), were consulted on various issues such as the laying out of roads, building construction, and land reclamation. The resultant Raffles Town Plan, or Jackson Plan, would be Singapore's first and only urban town plan for the next 130 years.

Today, we know what the Town Plan looks like thanks to Jackson's map—although the map reflects what was intended rather than what eventually materialised. Many roads on Jackson's map were not laid out in reality, even though key roads were indeed executed, and the principle of a grid system in road planning, with rectangular plots carved out for buildings, was followed through.

The Raffles Town Plan set down Singapore's first town limits. Raffles wrote that "if a space is reserved from (the sea) inland in every direction of from half a mile to a mile, as the ground may admit", spanning a three-mile seafront from Telok Ayer in the southwest to Sandy Point in the northeast, "it will be sufficient for all the purposes required in a principal town". It was easy to mark out the limits because of natural barriers on all sides. From Telok Ayer to the Singapore River, the town limits were rolling hills; there were marshes on either bank of the Singapore River; north of the Singapore River, the limits were defined by Bukit Larangan, Seligi (Selegie) Hill, and the Rochor River.

The land within occupies only part of the Central Area today, just five MRT stops along the East West Line, or four MRT stops along the North East Line, but it was more than sufficient in 1823 to house a population of over 10,000. This was to be the "new" Town of Singapore.

Inside this town, land was set aside for buildings for administration and to serve the

public, such as court houses and government offices. Raffles was adamant that his original vision of 1819 be fulfilled this time. The Town Plan stated that this "Government Ground" was to cover the land from the Singapore River to the Old Lines—covering all of Singapore Town in the Bute Map. Hence, Raffles instructed the Town Planning Committee to oversee the "removal of the native population and buildings" from the north bank of the Singapore River to the opposite side. This was the earliest form of "urban renewal" for modern Singapore—just four years into its existence. Officials had to calculate the value of each building to be demolished and work out compensation for their owners.

The military cantonments north of Singapore Town had to move too. They were first shifted to near the Rochor River, but the area was too low-lying. By the late 1820s, they were moved again to the southern part of Singapore Island, west of Telok Ayer, beyond the town limits. The area became known as the Sepoy Lines, where the EIC's Bengal Artillery and Madras Infantry were stationed.2

One of Farquhar's ideas survived though—the Esplanade, an open field next to High Street by the sea, occupying some of the land freed up after the military cantonments moved away. The Esplanade was distinctively colonial. It was similar to other open seaside fields and promenades found in colonial cities all over Southeast Asia, such as Penang's Esplanade and Manila's Malecon Drive (now Bonifacio Drive). Singapore's Esplanade had a road running by the sea; it was called Esplanade Road. When Lieutenant Ralfe's battery moved, the knoll on which it stood—which became part of the Esplanade—took on the name Scandal Point, for Europeans gathered there in the evenings to gossip and share scandals! Scandal Point was another colonial trademark—19th-century British ports in the region each had their own Scandal Points: Penang, Malacca, Rangoon, Hong Kong.

North of the Old Lines, Raffles also realised his initial order of 1819 that the land be turned into a "European Town". The European Town of 1822 was far larger than the European Town of 1819—this time, it stretched lengthwise from the Old Lines to the vicinity of the Sultan's palace compound, and widthwise from the sea to the foot of what are now Mount Sophia and Mount Emily. It was huge for the European community of just 90 in 1824!

However, Raffles did give in to the European merchants' insistence that the North Beach was unsuitable for siting godowns and landing goods by sea. With the north bank of the Singapore River off limits to them now, he decided to site them south of the Singapore River, at its mouth—on the promontory called Tanjong Singapura. Again, this was where Raffles pushed through his bold ideas, and where 19th-century urban renewal took place: he ordered all buildings already erected at Tanjong Singapura to be levelled, the entire hill broken up, and its contents pushed into the marsh on the south bank of the Singapore River. The Chinese Town marked out on the Bute Map had to be demolished for the marshes to be fully reclaimed. This way, flat, dry land was created where there once had been a hill and marshes. This was the first land reclamation project in Singapore's history. Somewhere between 200 and 300 Chinese, Malay, and south Indian labourers were employed for this purpose, with little more than cangkuls, shovels, and baskets to carry earth. Raffles himself came twice a day to give directions, and every evening bags of money were brought to pay the men. In four months Tanjong Singapura was cut down and all hollows, streams, and drains filled up. Lorong Tambangan was also history to fall victim to urban renewal, but definitely not the last. In their place a new mercantile quarter arose. It was later named Commercial Square today's Raffles Place. Many merchants moved into shophouses there, living on the second floor above their ground-floor godowns.

To connect the Government Ground and European Town to Commercial Square, the unnamed bridge spanning the Singapore River was replaced by a wooden drawbridge; the drawbridge was named Presentment Bridge (Elgin Bridge today). Completed in 1822, it was to be the river's only bridge for the next 18 years.

For the non-European races, Raffles instituted a strict policy of physical segregation, parcelling out different parts of the Town to different races, and assigning a headman to each race. This was a framework for keeping them separated, docile and subservient.

North of the European Town, bordered by the banks of the Rochor River and the sea, was land allocated for the Malays, Bugis, Arabs, and other ethnic groups from the region. Altogether, they totalled 6,431 in 1824—about 60 per cent of the population. This was fitting, as the area was already occupied by the Sultan's compound and Bugis Town. However, of Bugis Town, Raffles did not like what he saw. He observed that "at present the houses (were) scattered without any attention to order or convenience", and that it would be "necessary to... (lay) out regular streets inland towards the (Rochor River) and (oblige) the inhabitants to conform thereto". Hence, he ordered more urban renewal—most of the Bugis Town was to be moved to the north, between the Sultan's compound and the mouth of the Rochor River. The area was near to the sand and mudflats of the mouths of the Rochor and Kallang rivers, where the maritime Bugis would

expunged—the first named road in Singapore's be most at home with their high-masted prahus. The Bugis made up a significant 17 per cent of the population of Singapore in 1824. Being trade rivals with the Dutch, the Bugis could be useful in a possible conflict with them. As for the original Bugis Town, Raffles underlined the strictness of the policy of racial segregation, and called for the removal of all Chinese settlers and their seafront houses. A precolonial village was no more.

> Other than a Bugis Campong, Raffles also demarcated an Arab Campong; in between lay the Sultan's compound, which at the time stretched inland from the sea to the banks of the Rochor River. Collectively, the Arab Campong, Sultan's compound, and Bugis Campong were known as Kampong Glam. No longer did "kampong" only refer to a traditional village; now, it also referred to an Asian urban neighbourhood.

> The Chinese in Singapore—numbering 3,317 in 1824—were allocated land south of the Singapore River, including much of the new land reclaimed with soil from what was once Tanjong Singapura. The new riverfront at the south bank was named Boat Quay-the "belly of the carp" that was the Singapore River. South of it lay the new "Chinese Campong". Inside, Raffles advocated separating the Chinese along topolect lines, such as the Hokkiens, Teochews, and Cantonese, because "it is well known that the people of one province are more quarrelsome than another, and that continued disputes and disturbances take place between people of different provinces".

> South of the Chinese Campong and the town limits, to connect it to the southern coast, two roads were laid down around 1823, running past hills and swamps. One was Salat (now Silat) Road; "Salat" was a British spelling of "Selat", the Malay for "Straits". The other was Tanjong Pagar Road;

First, thousands were resettled. Some were moved to new housing inside the Central Area, but most were moved out of the Central Area to new towns. The last HDB flats inside the Central Area—Albert Centre (next to Albert Street), Rowell Court (off Jalan Besar), and Kreta Ayer Complex (Smith Street)—were completed by 1984; thereafter, land inside the Central Area was reserved for commercial use. The government made sure new accommodation was ready when residents had to move, and as much as possible, entire communities were moved together to the same location. This somewhat soothed the sense of being uprooted, and prevented urban renewal from becoming a political hot potato or destabilising PAP hegemony in Singapore.

After resettlement, the bulldozers moved in. Untold numbers of two to four-storey shophouses and godowns, each bearing an unspoken history going back to more than a hundred years, were pulled down. A new city had to rise above the ashes of the old-and heritage and conservation be damned. As URA General Manager Alan Choe wrote in 1969: "Unlike England or Europe, Singapore does not possess architectural monuments of international importance. There are therefore few buildings worthy of preservation.'

To maximise land use, no longer would new buildings be constructed like shophouses. Urban renewal heralded a new form of land use—the mixed-use, high-rise complex, going up, up, up. There was a podium block of three to eight storeys, comprising a concrete sandwich of shops on the lower floors, then offices, then a multistorey car park. The top of the podium block was a "void deck", an open space for residents to mingle and organise community activities such as weddings and funerals. Atop the void deck rose one or more tower blocks of residential flats that

could top 20 to 30 storeys. After 150 years, the low, ground-hugging skyline of the Central Area was broken.

Urban change was not just vertical. The footprint of a complex was far larger than an old shophouse's. At the time, there were many small city blocks bordered by small roads and back lanes nestled between major thoroughfares. To accommodate new complexes, city blocks had to be enlarged or combined, expunging the small lanes. Entire branches from Singapore's toponymic tree were shaved off and thrown into the fire. But the main thoroughfares survived the cull: arteries such as Beach Road, North Bridge Road-South Bridge Road, Stamford Road, and Upper Cross Street-Cross Street; also, what the Chinese knew as Da Ma Lu to Qi Ma Lu. The grid system of the Raffles Town Plan stood the tests of time and development—many of its roads remained the grid system of a reborn Central Area.

URBAN RENEWAL first came to Kampong Glam in the mid-1960s on its reclaimed land, the old Raffles Reclamation Ground. The government proclaimed a one-mile strip of seafront between Beach Road and Nicoll Highway the "Golden Mile", to encourage developers to build offices there to relieve congestion in the Central Area. One form of encouragement—the land cost just \$1 per square foot! Two of the first mixed-use, high-rise complexes in Singapore—the 15-storey Golden Mile Complex and the 18-storey Golden Mile Tower—were completed by 1973 and 1974 respectively.

Meanwhile, 2,500 families living inside the area bounded by North Bridge Road, Jalan Sultan, Beach Road, and Crawford Street were resettled for it to be razed; the only surviving building was

project was assisted by United Nations experts and lauded as "visionary" and "ambitious". It also led to the disappearance of Minto Road, Java Road, Palembang Road, and part of Sumbawa Road.⁵ In their place, a "concrete mosaic" of 17 residential blocks eight to 15 storeys in height arose, housing 5,000 families; the blocks of flats are now known as Beach Road Garden and Golden Beach Vista. To serve the residents, the 25-storey Textile Centre was finished in 1974, complete with a bowling alley and cinema, also taking in 150 textile shops displaced by urban renewal. Jalan Sultan Centre followed by 1977, and Golden Sultan Plaza—with 250 shops spread over nine storeys—in 1981.

Some distance away, Clyde Terrace, Beach Street, and Lim Chiak Street were expunged; in their place, the Hotel Merlin Singapore was finished in 1971. A 32-storey residential and commercial tower block was added by 1978, becoming the tallest structure in Kampong Glam. Today, the buildings are known as PARKROYAL on Beach Road, and The Plaza.

In the 1970s, three small lanes between Ophir Road and Rochor Road—Tiwary Road, Anguillia Road, Muar Road—were expunged. The six city blocks within were merged for Rochor Centre, completed by 1977. The complex had a threestorey podium block and atop it, four residential blocks—1 to 4 Rochor Road—reaching the 17th floor.

Meanwhile, the historic roads of Jalan Pekan, Jalan Kuantan, and the remains of Sumbawa Road were cleared for Crawford Centre, a cluster of 11 buildings, and a new campus for Hong Wen School, a primary school.⁶ Crawford Centre, completed by 1978, was named after Crawford Street.

Further down North Bridge Road, Blanco Court, a \$19.6-million, 15-storey complex, was

the Masjid Hajjah Fatimah, completed 1846. The completed in 1980. It was built at the junction of North Bridge Road and the lane Blanco Court which gave it its name; two theatres and two lanes—Diamond Theatre, Theatre Royal, Lorong Kassim, and Swatow (the original English spelling of Shantou, a city in Guangdong, China) Street were destroyed. North Bridge Road was losing its decades-old reputation as a "road of theatres".

> The lane Blanco Court—laid down before 1871—did not last long; neither did its old neighbour, Shaik Madersah Lane. By 1981, both were swallowed by the extension and realignment of Ophir Road. Once a small road, the lengthened and widened Ophir Road became a significant part of the grid system, linking Bukit Timah Road to Beach Road and Nicoll Highway.

> The 1980s saw the disappearance of more historic landmarks in Kampong Glam. By 1984, 111-year-old Clyde Terrace Market was razed; the URA dismissed it as "out of place" and "incompatible" in "an area of towering hotels, shopping complexes and cinemas". In its place rose The Gateway, two (literally) cuttingedge 37-storey office towers. Off Arab Street, a 150-year-old keramat known as the Keramat Arab Street or Keramat Fakeh Haji Abdul-Jalil after an imam to Sultan Hussein Shah, was replaced by Golden Landmark Shopping Complex by 1983. As for Kampong Bugis, it was cleared of houses and shipyards. As late as 1978, housewives living there still took sampans over the Rochor River to travel to and from markets in Crawford Centre.

> More skyscrapers came up in the 1990s. The Concourse was completed in 1994 as the final piece in the "Golden Mile" jigsaw. At 43 storeys and 175 metres, it became Kampong Glam's tallest building... for only 23 years.

> Between the new Ophir Road and Rochor Road, six roads—Clyde Street, Jeddah Street, Ark

Lane, Fraser Street, Sin Koy Lane, and Garden Street—and five city blocks were expunged for Parkview Square, a 24-storey Art Deco office building completed in 2002. A 130-year-old mosque off Jeddah Street, the Masjid Maarof, was demolished.

Nearby, Johore Road was expunged by 2000 to make way for the Victoria Street Wholesale Centre, which itself moved to Kallang Avenue after 2009. And the building Blanco Court, barely 20 years old, was given a makeover and reopened as Raffles Hospital in 2002, erasing the place name "Blanco Court" from history.

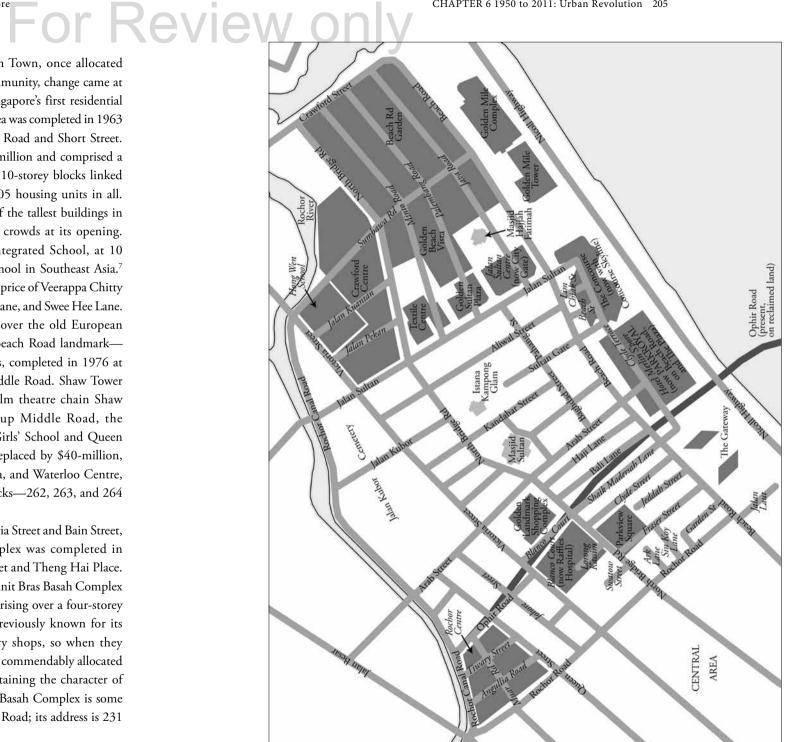
Over 40 years from the 1960s, Kampong Glam changed beyond recognition. Many old roads with unique names vanished, including some reflecting themes of the Malay world and Middle East. A handful of historic landmarks have survived—the Masjid Sultan, Masjid Hajjah Fatimah, and the Istana Kampong Glam. Today, the Istana is the nucleus of an enclave of preserved and restored shophouses between Jalan Sultan and Ophir Road—the dwellings of "brick and lime... roofed with red tile" John Crawfurd described in the 1820s. Kampong Glam's basic grid network has also been retained: Victoria Street, Beach Road, Jalan Sultan, Arab Street, North Bridge Road—including the kink past the former Sultan's compound, the legacy of a feud between two empires. Still around, too, are the "Tombs of the Malayan Princes" and Jalan Kramat off Victoria Street, presently named Jalan Kubor Cemetery and Jalan Kubor (Malay for "Grave Road"). But like many historical sites in Singapore, the future of the oldest Muslim cemetery in Singapore is uncertain—it has been earmarked for residential development since 1998.

FOR THE old European Town, once allocated to the tiny European community, change came at a slower pace at first. Singapore's first residential complex in the Central Area was completed in 1963 at the junction of Selegie Road and Short Street. Selegie House cost \$3.8 million and comprised a 20-storey block and two 10-storey blocks linked by two-storey blocks—505 housing units in all. At the time, it was one of the tallest buildings in Singapore, and attracted crowds at its opening. Neighbouring Selegie Integrated School, at 10 storeys, was the tallest school in Southeast Asia.⁷ The buildings came at the price of Veerappa Chitty Lane, Annamalai Chetty Lane, and Swee Hee Lane.

The next skyscraper over the old European Town was also another Beach Road landmark— Shaw Tower at 35 storeys, completed in 1976 at the intersection with Middle Road. Shaw Tower was named after local film theatre chain Shaw Organisation. Further up Middle Road, the landmarks of Waterloo Girls' School and Queen Street Post Office were replaced by \$40-million, nine-storey Midlink Plaza, and Waterloo Centre, with three residential blocks—262, 263, and 264 Waterloo Street.8

At the corner of Victoria Street and Bain Street, another residential complex was completed in 1980, erasing Carver Street and Theng Hai Place. The \$15.2-million, 700-unit Bras Basah Complex has two 21-storey towers rising over a four-storey podium. The area was previously known for its bookstores and stationery shops, so when they were resettled, many were commendably allocated shops in the complex, retaining the character of the area. Curiously, Bras Basah Complex is some distance from Bras Basah Road; its address is 231 Bain Street.

North of Bras Basah Complex, three city blocks and the two lanes within—Holloway Lane





An oasis of heritage inside the Central Area: Kampong Glam, surrounded by skyscrapers. This photo was taken from the 24th floor of the Textile Centre off Jalan Sultan. The white band marks the rough boundaries of the Sultan's compound of the Raffles Town Plan, drawn up by 1822. Soon after, North Bridge Road and Victoria Street were cut through the residence. Presently, (1) is the former Sultan's Palace, now the Istana Kampong Glam; (2) is the Masjid Sultan, and (3) is Jalan Kubor Cemetery. Beach Road used to face the sea, but presently features skyscrapers such as (from extreme left) Concourse Skyline, The Plaza, The Gateway, and DUO. (Source: Eisen Teo)



Tucked away off busy Victoria Street are the "Tombs of the Malayan Princes", presently known as Jalan Kubor Cemetery, named after Jalan Kubor, a small lane which bisects it. The cemetery is at least 200 years old, but a question mark lies over its future. (Source: Eisen Teo)

and Lorong Sidin—were razed in the 1980s. It remained a grass patch for two decades (!) until the National Library moved from Stamford Road into a new 16-storey building in 2005. South of the complex, 32-year-old Odeon Theatre was demolished in 1985; the commercial building erected on the site 20 years later was named Odeon Towers in its memory.

The 1980s saw big changes to the area once known as Kampong Bencoolen. Lorong Krishna off Waterloo Street was expunged for 20-storey Fortune Centre, another mixed-use complex completed in 1983. The face of Albert Street was transformed by Sim Lim Square, Fu Lu Shou Complex, Albert Centre, and Albert Complex in the space of several years. Albert Centre spelled the demise of Lorong Kranji, a curious name because it was nowhere near Kranji!

Even the historic campus of Raffles Institution—the school envisioned by Raffles to educate the sons of East India Company employees—was not immune to urban renewal. The 150-year-old compound was demolished for a complex of hotels, offices, a shopping mall, and a convention centre. The complex was named Raffles City in memory of the school, which had moved to Grange Road. Raffles City opened in 1986, boasting the world's tallest hotel, the Westin Stamford, at 73 storeys and 226 metres. It is now Swissôtel The Stamford.

From the 1950s to the 1980s, the area around Bugis Street was world-famous for its food, *pasar malams*, and transgender sex workers. Bugis Street and nearby Malabar Street, Malay Street, and Hylam Street were expunged in the late 1980s; they were reborn as walkways—complete with faux street signs—inside an air-conditioned shopping mall, Bugis Junction, which opened in 1995. Across the road from Victoria Street, a cluster

of 34 shophouses was preserved as a shopping enclave, named Bugis Village. The section of Albert Street running through it was renamed New Bugis Street in an ultimately unsuccessful bid to recreate the bustling roadside shopping experience Bugis Street once boasted. Today, the place name "Bugis" is associated with Bugis Junction and Bugis MRT Interchange, and not Kampong Bugis to the northeast.

At the junction of Bras Basah Road and Waterloo Street, Beng Swee Place was expunged by 1993 for 11-storey Plaza By The Park, presently the Manulife Centre. As for Farquhar Street and Bernard Street, tributes to Singapore's first Resident and his son-in-law, they were expunged between 1995 and 1998. Back in the former Kampong Bencoolen, Lorong Mandai—near Middle Road and another oddity since it was nowhere near Mandai—made way for a new campus for the Nanyang Academy of the Fine Arts.

The Government Ground was once allocated to "purposes of government", but from the 1970s, urban renewal saw parcels of land converted to commercial use. Peninsula Shopping Centre was completed first in 1971 along Coleman Street. The following year, Colombo Court, a 10-storey shopping centre and office block, opened; it was named after the neighbouring lane Colombo Court. Then Ford Street, a lane off High Street, was expunged for 32-storey High Street Centre and 11-storey High Street Plaza. The construction of the former also entailed the clearing of shophouses and godowns along North Boat Quay, including Singapore's oldest godown, completed in 1843 by Yeo Kim Swee, a merchant who had hired Seah Eu Chin as a bookkeeper. Capitol Shopping Centre opened in 1976 next to the historic Capitol Theatre, leading to the demise of Flag Road. 10 Peninsula Plaza—opposite Peninsula Shopping Centre—was



Malay Street in the early 20^{th} century, at the junction with Hylam Street. This small lane between Victoria Street and North Bridge Road had appeared by the 1850s, and by the end of the 19^{th} century, was famous as a red-light area.



Today, Malay Street is a pedestrian walkway inside Bugis Junction, a shopping mall. The shophouses that used to line the street have been conserved, and now house shops and eateries. Faux street signs remind shoppers of what used to exist before the mall was built in the 1990s. (Sources: The New York Public Library Digital Collections, Eisen Teo)

finished in 1980, for which George Coleman's 150-year-old residence, 3 Coleman Street, was demolished. And Hoo Ah Kay's former ice house, known as Whampoa's Ice House, was torn down in 1981 to widen River Valley Road at the junction with Hill Street, ending its existence at 127 years.

The Old Lines of Singapore—named and described by Crawfurd in the 1820s—disappeared as the British developed the Town, but the "Freshwater Stream" in front of it survived into the 1980s as the Stamford Canal, running along Stamford Road. By 1984, it was completely covered; one of the last visual reminders of ancient Singapura as it had existed 700 years before was removed from sight.

Just south of Peninsula Shopping Centre, Hock Lam Street, Chin Nam Street, and Hong Hin Court were all expunged for Funan Centre, which opened in 1985. Funan Centre was unique as it adopted the name of a small lane over which it was constructed—"Fu Nan" is Mandarin for "Hock Lam".¹¹

In the 1990s, the area around High Street was transformed. High Street was separated into High Street and Parliament Place; nearby, the building named Colombo Court, not even 30 years old, was demolished for a new Supreme Court, which opened in 2005. The road Colombo Court was then renamed Supreme Court Lane, erasing the 90-year-old place name "Colombo Court" from history.

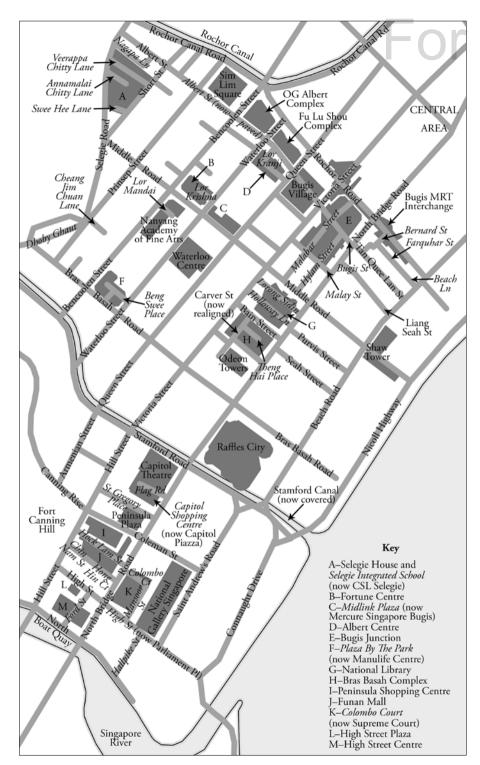
Over 40 years from the 1960s, the old European Town and Government Ground lost much of their original character. The mix of colonial and Asian that had attracted tourists the world over disappeared along with iconic streets and landmarks, such as the colourful and sleazy Bugis Street, the tastes of Hock Lam Street, and the regal campus of Raffles Institution. Colonial

bungalows, shophouses, and small lanes reflecting Singapore's ethnic potpourri were replaced by modern towers such as Bras Basah Complex, High Street Centre, and Raffles City. Individual historic buildings have been conserved, such as St Andrew's Cathedral, the Central Fire Station, and Raffles Hotel, but they are islands of heritage in a sea of relatively new developments.

SOUTH OF the Singapore River, in the densely-populated area once known as the Chinese Campong, urban renewal first unfolded at the foot of Pearl's Hill. People's Park was a welcome evening retreat for Chinatown residents, who flocked there after sunset for its hawker stalls, storytellers, and street performers. People's Park Market opened in 1922, but a fire destroyed it in 1966. Then the government acquired the site for a new complex named People's Park Complex. The \$10-million complex, with a six-storey podium and 25-storey residential tower, was finished in 1973, becoming Chinatown's tallest building.

Fire was also a catalyst for change near the Singapore River. It destroyed 123-year-old Ellenborough Market in 1968. Soon after, it was torn down, and Fish Street was also expunged for a new complex of three blocks and a resurrected Ellenborough Market. 1, 2, and 3 Tew Chew Street were completed around 1972.

In 1976, the People's Park legacy grew with the opening of another mixed-use complex, People's Park Centre. It comprised a six-storey podium block below a 22-storey residential tower and seven-storey office tower. Six city blocks were combined for its footprint, and Lim Eng Bee Lane and part of New Market Road had to go. People's Park Centre was closely followed by Pearl's Centre, completed in 1977 by Pearl's Hill Terrace. It had a



The Central Area between Rochor Road and the Singapore River. The roads and coastline are as they existed in 1961 Place names in italics no longer exist; roads have been expunged, and buildings have been torn down, revamped, or renamed. Buildings or sites in darker grey, such as Bras Basah Complex and Funan Mall, were constructed between 1961 and 2019 at the cost of expunged roads such as Theng Hai Place and Hock Lam Street. (Source: Eisen Teo)

Review only

10-storey podium block with 12 storeys of luxury apartments above; its cinema, Yangtze Cinema, developed a seedy reputation in the 1990s for screening Asian and European softcore films.

Across New Bridge Road, 140-year-old Upper Nankin Street and Upper Chin Chew Street made way for Hong Lim Complex, curiously named since Hong Lim Green—presently Hong Lim Park—was two city blocks away. The complex, with 1,000 flats in four residential towers topping at 18 storeys, opened in 1980.

The "death houses" of Sago Street and Sago Lane, much of the two roads, and the SIT's four-storey Art Deco tenement blocks, were all cleared by the early 1980s for Kreta Ayer Complex, an \$18-million development with a three-storey podium block and two 21 and 25-storey towers atop it. The complex was named after Kreta Ayer Road. But its 400 stallholders suggested to the HDB that it be renamed Chinatown Complex, in their opinion a more tourist-friendly name. And so in 1984, Kreta Ayer Complex became Chinatown Complex.

Opposite Hong Lim Park, the Central Police Station, a Neo-Palladian structure opened in 1933, was demolished for South Bridge Centre, a 13-storey, \$77-million commercial building, completed in 1984. Like Bras Basah Complex, South Bridge Centre took in displaced jewellers and goldsmiths in the area, hence retaining a link with a past community.

The PWD decided to widen New Bridge Road to relieve congestion south of the Singapore River, turning the two-lane dual carriageway into four lanes. However, instead of just widening the existing road, New Bridge Road was converted into a one-way four-lane street; traffic could only proceed southbound. Eu Tong Sen Street, once a small lane between Park Road and Havelock Road, named after businessman Eu Tong Sen (1877–

1941), was widened to four lanes and lengthened until it became New Bridge Road's twin—a one-way street with traffic proceeding northbound. The four-year operation was completed in 1988 at the expense of Wayang Street.

Into the 21st century, some historic roads in Chinatown were converted to pedestrian malls in an attempt to resurrect a street vibe and outdoor ambience lost to redevelopment. Hokien Street, Nankin Street, Chin Chew Street, Sago Street, and Trengganu Street were closed to vehicular traffic by 2007, and paved over for pedestrians. Pagoda Street followed the following year. Pedestrianisation encouraged more foot traffic for shops and eateries along these roads.

East of Chinatown, Raffles Place was birthed from Singapore's first urban renewal exercise of the 19th century. Now, 20th-century urban renewal hurled the old Raffles Place into a glass-and-steel encased 21st century. Its colonial architecture was gradually lost to skyscrapers, underscoring the Republic's bid to "progress" from old-world colony to "First-World" city-state.

One of Raffles Place's first urban renewal projects in the 1960s was seven-storey Market Street Car Park, Singapore's first standalone multi-storey car park, completed 1964. One of the first iconic colonial buildings to go was the Ocean Building, a five-storey landmark along Collyer Quay, headquarters of the Straits Steamship Company. When it was completed in 1923, it was the tallest building in Singapore, at 49 metres. It was demolished in 1970 to make way for a new 28-storey tower named Ocean Tower.

The same year, rent control was lifted for Raffles Place, Collyer Quay, and much of the old Telok Ayer Reclamation Ground, allowing landlords to repossess their properties from

tenants and sell their land to private developers. This accelerated urban renewal. *The Straits Times* coined a nickname for the 32 hectares of prime land resembling an upturned shoe—the Golden Shoe, to match the Golden Mile north of the Singapore River. This spelled the end of Raffles Place as a popular shopping venue. In November 1972, Robinsons Department Store, a mainstay of Raffles Place for 80 years, was entirely gutted by a fire; nine people died. Amazingly, the store reopened by Christmas—but in Orchard Road. The original site was given over to a new skyscraper, the Overseas Union Bank (OUB) Centre, which became Singapore's tallest building at 280 metres and 63 storeys when it opened in 1986.

For 150 years, Malacca Street, Market Street, and Chulia Street were known for their Indian traders and Chettiar moneylenders; they were ordered to vacate in 1975. All along Market Street, Cecil Street, Chulia Street, Phillip Street, and Robinson Road, pre-war stationery and provision shops, restaurants, wholesale and retail dealers, commodity handlers, and finance houses had to uproot a way of life they had known for decades.

In 1978, The Arcade's time ran out. For five generations, it was one of Singapore's best-known seafront landmarks, with small shops running the length of its pedestrian mall, selling a plethora of goods ranging from watches to cameras and sports gear. It was demolished to make way for a 20-storey complex of the same name which opened two years later.

Several roads in Raffles Place were expunged in the 1980s. Union Lane, off Collyer Quay, disappeared by 1984, making way for 24-storey Tung Centre. 12 Then, to create a through road from Chinatown to Collyer Quay, Church Street was lengthened to join Cecil Street and Market

Street at the expense of Guthrie Lane. The resultant triangular-shaped city block was used to build the Golden Shoe Car Park. And to make way for the construction of Raffles Place MRT Interchange, De Souza Street and the road named Raffles Place were removed.

More of Market Street's heritage disappeared by 1988 when the Masjid Moulana Mohammed Aly, which served Indian Muslims in the area, was expunged. In its place rose the United Overseas Bank Plaza complex, with Tower 1 rising to 280 metres, tying with the OUB Centre as the tallest building in Singapore. The mosque subsequently reopened in the basement of the complex.

The last of the old Raffles Place and Collyer Quay died out in 1989, with the closure of Change Alley, once a shopping belt to rival The Arcade. Two old buildings—Winchester House, built in 1905, and Singapore Rubber House, built in 1960—were demolished, too. After they were replaced by 33-storey Caltex House and 37-storey Hitachi Tower, an indoor pedestrian mall was opened between them, also named Change Alley, but not quite the historic tourist attraction.¹³

South of the Singapore River, historic Chinatown and Raffles Place experienced different fates over 40 years of urban renewal. Even though the former lost numerous roads and old landmarks to complexes such as People's Park Centre and Hong Lim Complex, five neighbourhoods of shophouses have been conserved—areas around the Singapore River, China Street, Pagoda Street, Club Street, and Keong Saik Road—more than anywhere else in the Central Area. As for Raffles Place, excluding places of worship, only two buildings presently remain as they were in the early 20th century—the octagonal Lau Pa Sat, and the Fullerton Building, now the Fullerton Hotel, the lone survivor of what was once a seafront

replete with colonial architecture. Similarly, almost nothing of the early 20th century has remained of the old Telok Ayer Reclamation Ground, save for the resilient grid road network—Cecil Street, Robinson Road, and Shenton Way are now skyscraper canyons. Presently, nine of Singapore's 20 tallest buildings are here, including three—OUB Centre (now One Raffles Place), UOB Plaza One, and Republic Plaza (completed 1995), all at 280 metres—towering over what was once Commercial Square of the dusty laterite roads, flame-of-the-forest trees, carriage horses, and rickshaw pullers.¹⁴

Urban renewal was not confined to the Central Area. It spread to Tanjong Pagar to the south, Orchard Road and River Valley to the west, and Jalan Besar to the north. From the 1980s, Orchard Road took over High Street and North Bridge Road as the shopping mecca of Singapore. What was once "a well-shaded avenue to English mansions", lined with shophouses, plantations, and cemeteries, became a boulevard of gleaming malls such as The Centrepoint, Ngee Ann City, and Ion Orchard.

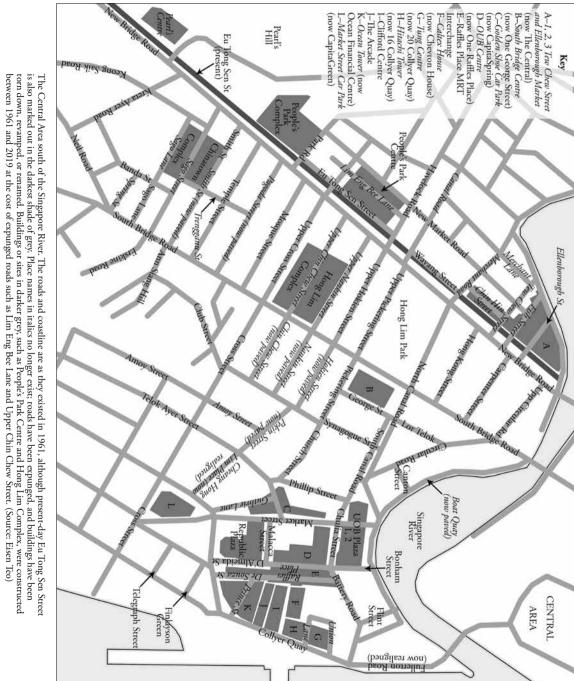
Types of land use which contributed to traffic congestion, such as markets, motor repair shops, and schools, were relocated from the Central Area. From the 1970s to the 1990s, seven schools within the old European Town and Government Ground moved. Other than Raffles Institution, they included the Convent of the Holy Infant Jesus, which moved from Bras Basah Road to Toa Payoh New Town in 1983; St Joseph's Institution, which moved from Bras Basah Road to Whitley Road in 1988; and St Anthony's Convent, which moved from Middle Road to Bedok New Town in 1995.

Businesses and trades unique to specific areas for generations were forever displaced. The street hawkers of Albert Street and Queen Street were resettled in Albert Centre. Tradesmen dealing in car spare parts and accessories along Rochor Road and Sungei Road moved to Waterloo Centre. Hardware and canvas goods tradesmen in Syed Alwi, Kitchener, French, and Kelantan roads were consolidated in Jalan Besar Plaza. And with the lifting of rent control, businesses which once paid around \$100 a month in shophouse rent now faced rents of \$2,000–3,000 in HDB shops.

In 1953, 340,900 people, or 30 per cent of the colony's population, lived inside the Central Area. This dropped to 100,000 by 1990, or 3.7 per cent of Singapore's resident population. This further declined to only 18,230 people—0.5 per cent—by 2016.

All over what was once old Singapore, the experience of movement—what a traveller saw if he looked out a moving vehicle—changed irrevocably. Crumbling shophouses and fivefoot-ways were replaced by modern facades and concrete pavements. Old traffic lights and signs, street name plates, and lamp poles were replaced and standardised. Roadside hawkers were spirited away to hawker centres. Trees and bushes sprouted everywhere, the product of Prime Minister Lee's 1967 "Garden City" vision. The volume of street litter diminished with the launch of the "Keep Singapore Clean" campaign the following year. The result: order, uniformity, cleanliness. But street culture, traditional lifestyles, and open-air nightlife were irretrievably lost.

When urban renewal began, heritage conservation was largely left out of the picture. It was not until 1971 that conservation was recognised as an "indispensable" element in urban renewal, and not until 1989 that conservation was statutorily institutionalised through a Conservation Master Plan. Even then, it had to take place within the framework of



economic pragmatism. Usually, if an old building was to be saved, it had to make money, either in becoming a tourist attraction, or being converted to commercial use. In 1989, just four per cent of the Central Area was earmarked for conservation as "historic districts". They included the "ethnic enclaves" of Chinatown, Little India, and Kampong Glam, and Emerald Hill and the Singapore River. Much of the rest of the Central Area was fair game for urban renewal.

Some lamented irreplaceable losses. Two years after Raffles City and the Westin Stamford opened over the site of the former Raffles Institution, *Straits Times* journalist Russell Heng wrote:

We swopped the oldest English school in Singapore for the tallest hotel in the world. But with the oldest school building, the record is for keeps. The tallest hotel in the world is just good for until somebody else builds a taller one.

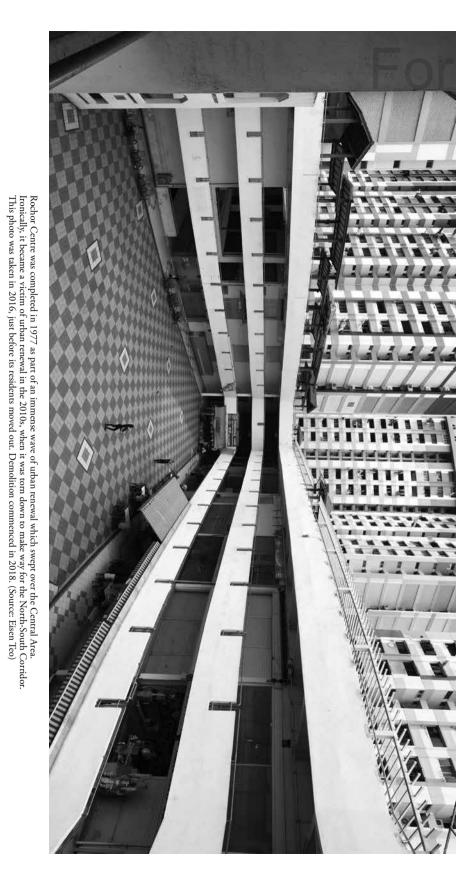
The Westin Stamford held the title of the world's tallest hotel for just 11 years. As of 2018, it was joint 17th.

LIKE HISTORY, urban renewal in Singapore goes in cycles. Some pioneer buildings erected in the 1960s and 1970s have themselves become victims of urban renewal. North of the Singapore River, Jalan Sultan Centre has been torn down for a new mixed development, City Gate. Rochor Centre was levelled for a future transport corridor; most of its residents were relocated to Kallang Trivista near the mouth of the Kallang River. South of the Singapore River, the resurrected Ellenborough Market and three blocks of Tew Chew Street—not even 30 years old—were demolished for the

construction of Clarke Quay MRT Station in 2000. Further south, South Bridge Centre was demolished for One George Street, a \$191-million, 23-storey office building, which opened in 2004. Pearl's Centre, with its iconic Yangtze Cinema, has made way for the upcoming Thomson-East Coast MRT Line.

In Raffles Place, the Ocean legacy entered its third generation in 2010, when 28-storey Ocean Tower was replaced by 43-storey Ocean Financial Centre. The Golden Shoe Car Park and its hawker centre—to the dismay of the lunchtime crowd has been razed for a new, 280-metre office building. With 99-year leases the norm now, there would be no more 120-150-year-old buildings such as the Raffles Institution campus gracing the Central Area. Now, buildings approaching 40-50 years in age are in danger of being sold for hundreds of millions of dollars to private developers. The very structures that once heralded the destruction of the old Town are now themselves icons of heritage, nostalgia, and a growing grassroots effort to combat the relentless tide of redevelopment— Rochor Centre was one example.

Was it a must that a new CBD had to be constructed over the ashes of the old Central Area? In most accounts of Singapore history, yes. But recall that the hills of Toa Payoh were used to fill the swamps of the Kallang River in the 1960s. Could the banks of the Kallang River north of Kallang Road, and neighbouring Jalan Besar, have been the site of the new CBD, hence saving much of the old Central Area from destruction? Much of historic Paris has been preserved while the modern business district of La Défense was constructed 10 km away in the 1950s and 1960s. Similarly, Pudong, Shanghai's modern business district, was built on the other side of the Huangpu River from Puxi, its historic quarter. Imagine if most of the old



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Town from Kampong of the preserved, while

Town from Kampong Glam to Outram Road had been preserved, while the Kallang River became the new commercial and financial heart of a post-independence Singapore. Unfortunately, we will never know how this version of Singapore would have turned out.

A BRIEF ode to Cheang Hong Lim's family. Urban renewal was harsh to their toponymic legacy. Between 1898 and 1924, nine of these names were renamed; of them, only Chin Swee Road survives today at the foot of Pearl's Hill. ¹⁵ Of the five names which survived after 1924, Hong Lim Creek and Cheang Jim Chuan Lane have vanished; only three—Hong Lim Green (now Park) in Chinatown, and Cheang Hong Lim Street (now Place) and Cheang Wan Seng Place near Raffles Place—still exist today. Yet urban renewal has gifted the Cheang clan another place name: Hong Lim Complex.

NEW TOWNS AROUND THE ISLAND

WHILE URBAN renewal transformed the Central Area, the rest of Singapore Island experienced its own sea changes through the building of 21 new towns over 50 years. Powerful land acquisition laws enabled the government to acquire vast tracts from villagers and landowning companies such as the Bukit Sembawang Rubber Company. Myriad rural communities and landscapes were homogenised into carefully-planned, manicured satellite towns. Hundreds of rural kampungs were resettled to concrete, vertical kampungs—high-rise flats, with each block housing roughly the number of people living in an average-sized kampung. Winding dirt tracks made way for paved roads through towering flats. Hills and valleys were levelled, the green of forests and plantations replaced by the grey and white of concrete walls and pavements. The distinctions between "town" and "country", "urban" and "rural", disappeared. City limits became redundant. Most of Singapore Island became an urban city-state.

Each new town that arose was intended to be almost self-sufficient—a town centre, neighbourhoods each with its own centre, retail and entertainment facilities, car parks, industrial estates, and transport nodes such as bus interchanges. Arterial roads were built to link each new town with other towns and the Central Area.

In the 1960s, ground broke on two new towns. Efforts focused on Toa Payoh, which by 1970 had become Singapore's most populous new town with 150,000 residents. Toa Payoh New Town absorbed Temple Estate, including part of Kim Keat Road and Kim Keat Avenue. Fourteen roads were built inside the town. As they were laid down after the 1967 Street-Naming Advisory Committee guidelines of Malay names and mathematical naming, 10 were named Lorongs 1, 1A, 8A, and 2-8 Toa Payoh; the rest were named Toa Payoh North, East, West, and Central. The town's road layout was unique at the time—a series of concentric arcs and circles; for the outer perimeter, Jalan Toa Payoh was laid down to connect Thomson Road to Serangoon Road at Woodsville Circus. Unlike the Town of Singapore, these roads did not follow a regular pattern, because the north of Toa Payoh New Town was built first, and not what would become Toa Payoh Central. Hence, Lorong 1 was eventually joined to Lorong 6, Lorong 6 turned into Lorong 4, Lorong 5 turned into Lorong 7, and so on—confusing for newcomers. Unfortunately, that was a harbinger of future new town road systems. The regular grid system used for the Town of Singapore was never replicated for most new towns.

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