A Singapore Peranakan, architect Lee Kip Lin (1925–2011) was educated at the Singapore Chinese Girls' School (during a period when male students were selectively admitted) and the Anglo Chinese School. He received his architectural training at the Bartlett School of Architecture, University College London, University of London. From 1956 until his retirement in 1984. he combined a career in teaching with private practice. He wrote several monographs on Singapore's architectural history and was a keen collector of Singapore memorabilia.

The Singapore House is a comprehensive study of the various domestic architectural styles that thrived in Singapore from 1819 until the outbreak of the Pacific War from English Georgian, Victorian, Eclectic, Edwardian Baroque, Arts and Crafts and Modern International to the home-grown Coarsened Classical. Beautifully illustrated, The Singapore House marks a major attempt to document a rich and beautiful architectural legacy. The over 400 illustrations include rare historical materials, remarkable photographs and fascinating architectural drawings.



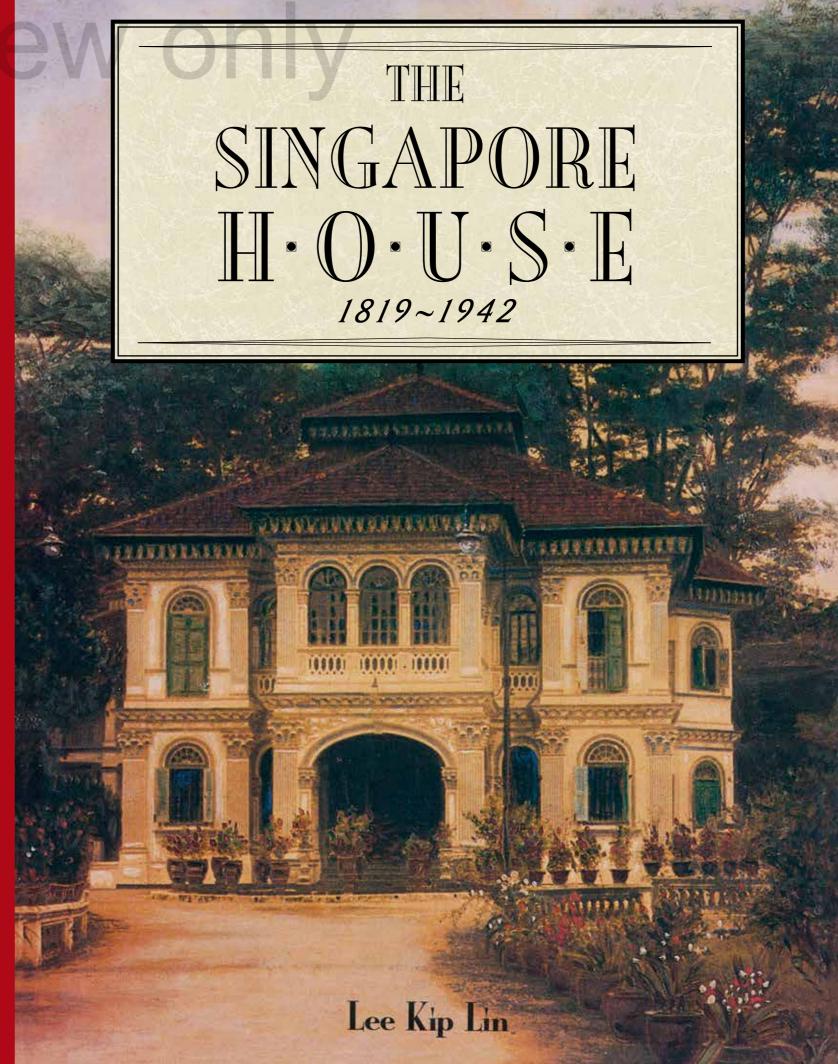


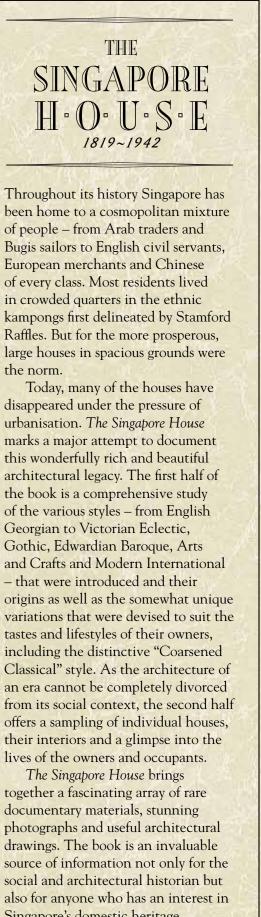






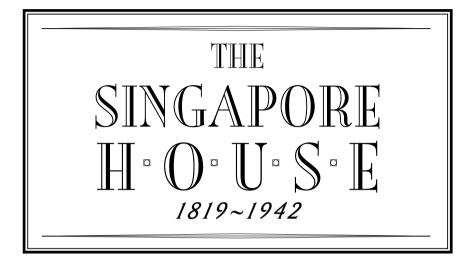
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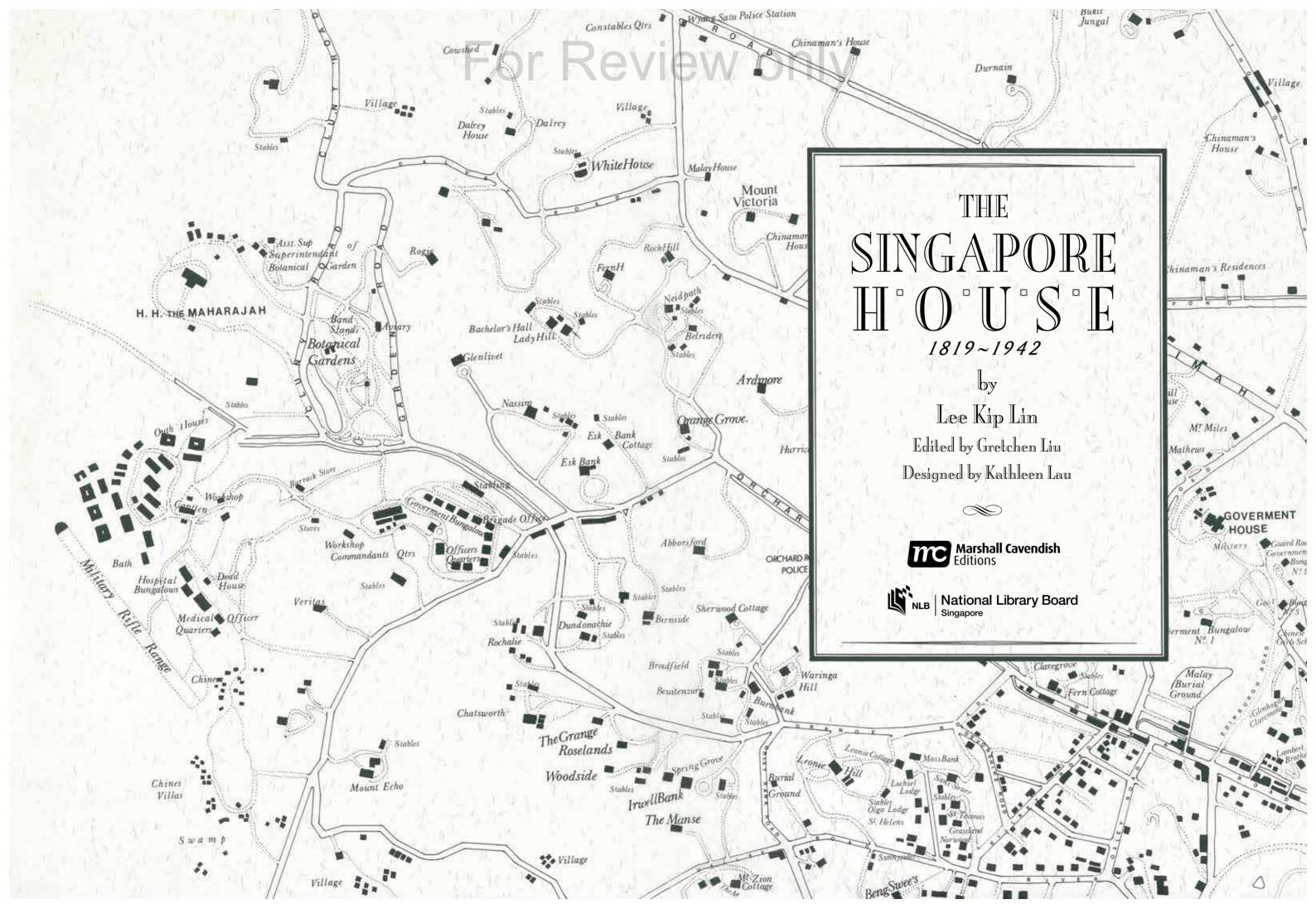




the norm.

Singapore's domestic heritage.







To Peng Hui, Pek Yen and the younger generation

A Note to the Reader:

Because all of the houses discussed in the book were built prior to the use of the metric system, measurements were given in feet and inches throughout. To avoid confusion over terms relating to floor levels, the standard terms used are "ground floor" and "first floor". Finally, the dating of houses relies mainly on the information contained in the original building plans. It is therefore assumed, in the absence of other information, that the houses were constructed reasonably close to the dates on the plans.

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Cover and Frontispiece: Hand-tinted photograph of a Singapore house circa 1920, location unknown. Endpapers: Measured drawing of the house of Madam Teo Hong Beng at Kerbau Road, built in 1905 and still standing.

Title page: Detail of a map of Singapore in 1881, showing residences in Tanglin and Claymore.

Pages 8–9: Interior elegance. The living room of Panglima Prang, photographed in June 1971, before the house was demolished.

Pages 10–11: Seaside charm. Choa Kim Keat's bungalow in Katong, painted by Low Kway Soo in 1928. Pages 12-13: Life at Rosedale. A page from the album of the Chia family shows the house as a backdrop to everyday life in the 1930s.

Pages 14-15 and 142-143: Two interior views of Grasslands from an album inscribed: "Photographs taken by Dr Chia Boon Leong during the wedding of Mr Tay Wee Soon to Miss Chia Gay Lian Neo on 24th January, 1927 at "Grasslands" No. 8 St Thomas Walk, Singapore". The first picture is inscribed "Side view of drawing room (portico)" and the second "Bridal Chamber". Pages 226-227: Verandah in Penang, circa 1910.

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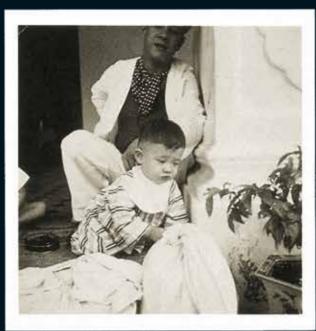






















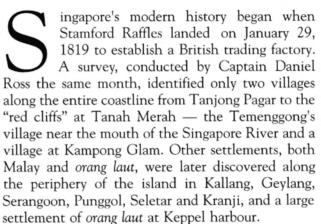






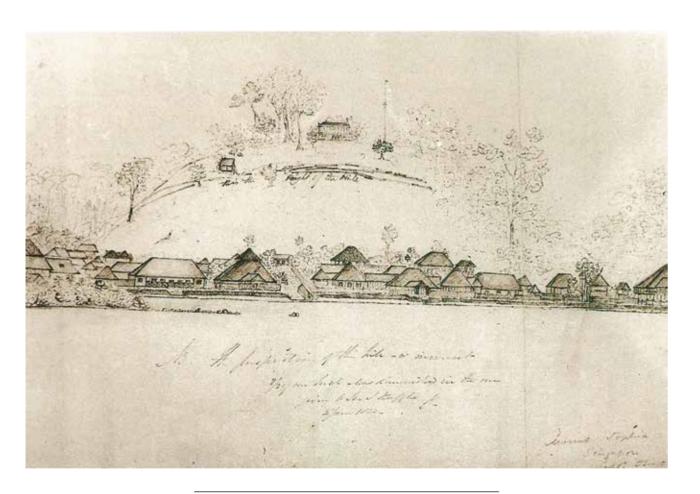






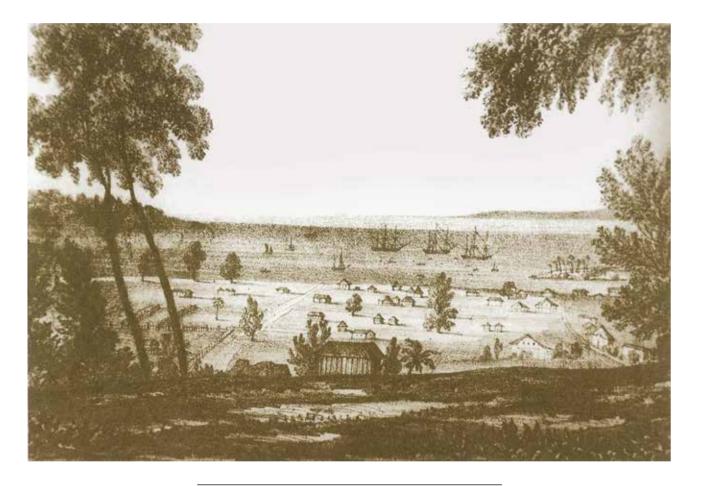
Inland, apart from the 20 Chinese gambier plantations on the hills close by the future town, the island was uninhabited virgin jungle. "The whole of the country as you well know on our first arrival presented nothing but one vast forest of the largest and most impenetrable kind" wrote the first Resident, Lieutenant-Colonel William Farquhar, in 1821. An agreement was reached between Raffles and Sultan Hussein and the trading factory formally established on February 6, 1819. The next day, Raffles left and the British began to organise their cantonment on the only open ground, between the Singapore River and the present Stamford Canal.

The European merchants, however, found the and the British began to organise their cantonment Beach Road area allocated to them by Raffles on the only open ground, between the Singapore unsuitable for landing goods from ships because of the continual surf. The north bank of the Singapore River suited their purpose best, compared to the Raffles did not spend much time in Singapore yet opposite bank where the land was low, swampy and he played a vital role in the planning of the subject to constant flooding. When Raffles returned settlement. On his second visit, from May 31 to June on October 10, 1822 for his nine-month final visit, 28, 1819, he formulated his plan to divide the town he found to his annoyance that Farquhar had allowed into communal neighbourhoods or "Campongs". The merchants to occupy the more suitable north bank Europeans were to reside in the Beach Road area, and Reserved Plain. He acted quickly, planning a between Stamford Canal and Arab Street; the major reorganisation of the town and forming a Chinese were to be located south of the Singapore committee to oversee its implementation. Lieutenant River; and the followers of the Temenggong, the Philip Jackson was appointed executive engineer and local chieftain, and other Malays were to be moved placed in charge of public works, a position he held to the upper reaches of the river. Land on the north



1.1 View of the town by Lt Philip Jackson dated June 5, 1823. The height of Bukit Larangan, in the centre of the drawing, has been exaggerated. Raffles' house is on the hill while the shore is lined with what appear to be timber and attap houses. 1.2 This detail from Jackson's drawing (opposite) shows the house of Francis Bernard, the police superintendent. It is obviously in timber and the high pitched roof appears to be covered in thatch. bank of the Singapore River was also set aside for use by the government. In June of 1819, shortly before his departure, Raffles declared with great satisfaction to his superiors in the East India Company that Singapore's population exceeded 5,000 souls and "an extensive China Town has been marked out on the opposite side of the River and the Bugginese have established themselves in considerable numbers on the margin of the Eastern Bay near which His Highness the Sultan has also fixed his residence."

By March of 1822, Farquhar marvelled that merchants "of all descriptions" were "collecting so fast that nothing is heard in the shape of complaint but the want of more ground to build upon. The swampy ground on the opposite side of the River is now almost covered with Chinese houses and the Bugis Village is becoming an extensive town." Already over 15 miles of roads had been laid, including High Street, Hill Street, North Bridge Road, Beach Road as well as the roads around Fort Canning and Mount Sophia and about two miles of road in Chinatown and Telok Ayer.



1.3 Singapore from Government Hill circa 1823-1824. The two parallel roads to the sea are Bras Basah Road and High Street. The road connecting the two and running behind the tall tree in the centre is possibly St Andrew's Road. The Esplanade has several houses on it. The buildings, as in Jackson's sketch, appear to be temporary timber structures.



1.4 Two early Penang houses drawn by James Wathen. The house on the left is Ah Mee's and on the right is Dr McKinnon's.

until his early retirement due to ill-health in 1827. George Drumgoole Coleman, an architect living in Batavia who would soon move to Singapore and play an important role in the fledgling settlement, was also consulted.

Raffles then issued his well-known Instructions of November 4, 1822. He now proposed forming a commercial centre south of the river by levelling a hillock and clearing, filling and draining the marshlands. A Chuliah or Indian Campong was to be formed on the northern fringes of the Chinese Town. Beyond Fresh Water Stream (Stamford Canal), the Bugis Town was realigned and an Arab one added. Squatters along the beach at Kampong Glam were evicted and seven lots of land on Beach Road issued previously to absentee landlords were resold. Large numbers of people were required to move. Some 200 acres at Telok Blangah were cleared and prepared for the removal of the Temenggong's village from the north bank of the Singapore River. The Chinese, on the southwest bank, were moved inland to make way for the "principal mercantile establishment". Those who had occupied land on the Reserved Plain were told to move as well. The Instructions included directions that streets were to be laid out in regular right-angled grids wherever possible. Houses were to have a uniform front and "a verandah open at all times as a continued and covered passage on each side of the street," stipulations which were to result in the singularly unique character of the towns of Singapore and, later, Malaya.

By the time of Raffles' final departure on June 9, 1823, many changes had been set in motion. In addition to those already mentioned, the Chinese Town had been reorganised and Commercial Square (Raffles Place) was taking shape; the marshes had

been filled and warehouses were already being built along the south bank. The construction of the first bridge across the river, designed by Jackson and an important milestone in the expansion of the town south, would be completed in August. To John Crawfurd, who would soon arrive to succeed Farquhar as resident, Raffles stressed that "... to the beauty, regularity and cleanliness of the Settlement, the width of the different roads and streets should be fixed by authority and as much attention paid to the general style of building as circumstances admit."

Much, in fact, remained to be done and Crawfurd faced a difficult task in managing the infant settlement. He received minimal financial support from the East India Company because it was by no means certain that the British would retain Singapore until an understanding was reached with the Dutch on conflicting territorial claims to the islands of the region. Finally, in March of 1824, by the Treaty of London, the Dutch relinquished all claims to the Malay Peninsula and Singapore in exchange for Java and Sumatra. Singapore's future was further assured in August when the Sultan ceded the entire island to the British.

Development now proceeded with confidence. Crawfurd, practical and far more resolute and independent-minded than his predecessor, was convinced that Singapore's success depended on material progress. Aware that funds were short, and that much of the government reserved land on the north bank of the river and in the Esplanade area would remain undeveloped, he issued grants and temporary leases to those who applied and to others who had remained in occupation of the reserved land. Among those who benefitted was the Javabased merchant John Argyle Maxwell who received



a grant in November of 1825, amalgamated it with an adjoining lot and built a house in 1827 which still stands as Parliament House.

When John Prince succeeded Crawfurd as resident in 1827, the town and suburbs extended from Kampong Glam to Telok Ayer and inland from the sea to a line roughly along the present North Bridge Road, Hill Street and South Bridge Road as far as South Canal Road. Prince was to reverse Crawfurd's policy of granting land on the Reserved Plain and it is to him that the survival of the Esplanade as an open space is due.

The hills surrounding the town were considered more valuable, and as early as 1821 there began a scramble for their possession by the European settlers. Farquhar liberally issued land grants to those who applied and by mid-1822 Scott's Hill (Ann Siang Hill), Mount Erskine, Pearl's Hill, Flint's Hill (Mount Sophia) and Bukit Cawa (Mount Emily) had been de-forested. The hills commanded excellent views of the town and harbour and in due course houses were built on their summits. Mount Palmer was one of the first to boast of a small bungalow, by 1822, and Pearl's Hill probably shared this distinction. Raffles completed his bungalow on Bukit Larangan in January of 1823 and Flint moved into his house on Mount Sophia about five months later. Colonel Nahujis, a Dutchman who visited Singapore in 1824, remarked

of the settlement: "The land is mostly hilly and is thickly covered with trees. Many of the hills in the neighbourhood of the beach are already adorned with houses of the various Europeans and amongst these the most noteworthy are the houses of the harbourmaster, Captain Flint, and of the merchant Scott."

The first houses erected by the new arrivals were timber with attap roofs and walls lined with kajang, waterproof matting of pandanus or mengkuang. These were similar to the houses of the original inhabitants and undoubtedly similar to those erected in Penang after its establishment in 1786. James Wathan, an artist who visited Penang in 1811-12, depicted two such structures (1.4). The house of Dr McKinnon had a jack-roof and encircling verandah and was very similar to houses of the period in India. Mr Amee's house was a single-storey bungalow raised higher than usual on timber posts. It was entered by a flight of steps that led to the open verandah which projected from the main body of the house. The window shutters were timber, framed in attap, and top-hung, after the fashion of the indigenous houses.

It should be noted that the Europeans already had about 250 years of experience building in the East by the time the British arrived — in Malacca, Macao, the Dutch East Indies and India. In Singapore the

1.5 View of Singapore Town and Harbour taken from the Government Hill, circa 1830. The buildings appear more permanent and substantial. The first Institution building and Maxwell's house can be seen, and the Esplanade has been cleared of buildings.

and the Esplanade before it was cleared of buildings. original houses were in timber, the main building material of the region, and were only gradually It lacks details, however, and probably gives only a replaced by brick ones. At first, bricks had to be general impression of the early buildings. imported from Penang, where brick houses were fairly There were few houses in the first years, and the common, and probably from Malacca where they East India Company records show that by December had been manufactured since Portuguese times. of 1823 the settlement could boast of 631 dwellings Captain Pearl, who arrived in Singapore at the same - 29 in brick, 52 in timber with tiled roofs, 200 in timber with attap roofs and 350 huts. By 1824, there time as Raffles, was said to have sold bricks that were used on his ship as ballast from which he had were 822 dwellings — 74 in brick, 59 in timber with tiled roofs, 314 in timber with attap roofs and 375 "deducted an excellent percentage by taking advantage of the market." Kilns were established by huts. By the end of 1825 there were 1058 - 147 in the government after the arrival of the first Indian brick, 399 in timber with attap roofs and 105 huts, the decrease in the number of huts due to a fire in convicts from Penang. The earliest visual records of Singapore houses Chinatown which destroyed 130 buildings.

are a sketch dated June 5, 1823 (1.1) and an undated lithograph circa 1824-25 (1.3). In both, the buildings are shown as squat, compact and simple with steep attap roofs. In the 1823 sketch are two houses which can be identified with certainty: Raffles' bungalow on Government Hill and the house of Francis Bernard, the first police superintendent (1.2). The undated lithograph shows some of the early roads

Residences and godowns are, not surprisingly, hard to differentiate in early illustrations since merchants lived and worked in godowns concentrated mainly along the river front, in Commercial Square, in High Street and along the southern edge of the Esplanade. A few prominent merchants and government officials had, however, built houses in North Bridge Road and Beach Road as the decade came to a close.

A Note on Houses and Population =

-or Revie₩











Born in Singapore. Children and their parents in portraits from the early 20th century.

The people who first came to live and work in Singapore were merchants, traders and adventurers from all over the region. With the exception of the original inhabitants and immigrants from the Indonesian Archipelago, the population was mostly male and transient — a phenomenon that continued well into the present century.

In 1824, there were 2,956 Chinese men and only

361 women. Ten years later, the Chinese population had risen to 10,767 of which less than 10 per cent were women. The ratio of women increased slowly: 20 per cent in 1901, 26 per cent in 1911, 32 per cent in 1921 and 38 per cent in 1931. Among Europeans, there were 23 women and 51 men in 1824. From the 1830s up to the mid-1930s women accounted for a stable one-third of the European population. In





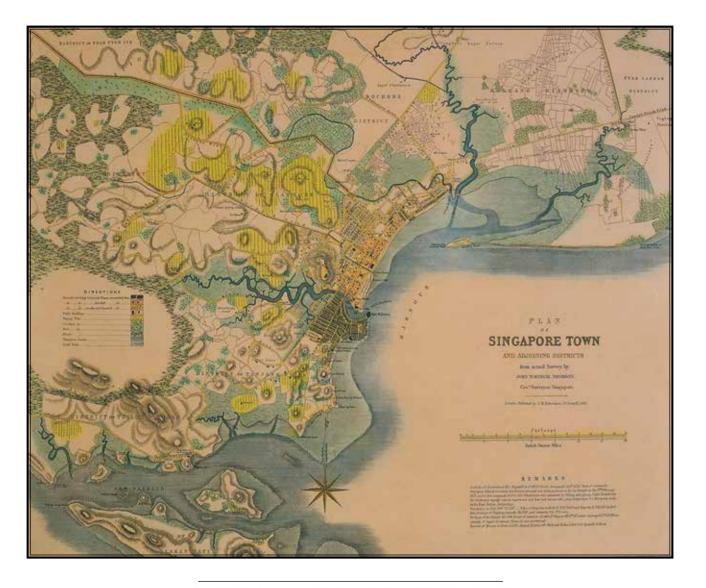


Family gatherings. These Singapore photographs also date from the early 20th century.

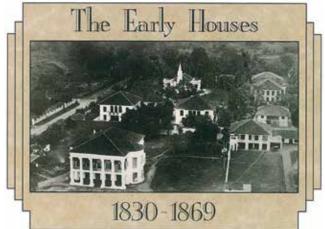
contrast, among Indians there was only one woman for every four men right up to World War Two. The proportion of Eurasian females was higher; in the 1830s women accounted for 40 per cent, by the 1860s 50 per cent, and until World War Two slightly more than half. Malay men and women remained in about equal numbers throughout the whole period.

Equally significant, the number of houses built

relative to the population was small and continued to be small up to World War Two. The majority of Asian immigrants lived in shared quarters above shophouses and godowns in the Chinese and Chuliah kampongs while many Europeans were bachelors who lived in offices or godowns, shared a house or boarded with families initially in the Beach Road area and later in Tanglin.



2.1 This 1846 map of the town by J.T. Thomson shows the European, Arab, Malay and Bugis residential areas, coloured in orange, north of the Singapore River. South of the river, and coloured in grey, are the more congested Chinese and Chulia areas. The residential areas did not extend beyond the confines shown on this map until the 1860s. 2.2 Houses in the Coleman and Hill Street area in 1863. From a photograph by Sachtler & Company.



everal events during the 1820s paved the way for the growth of the town from the 1830s onwards. The treaties of 1824, already mentioned in chapter one, had dispelled doubts over Singapore's future and the mood of self-assurance was reflected in the dramatic rise in the colony's population from 4,727 in 1821 to 16,634 in 1830. In December of 1826, the government was reorganised, and the three settlements of Penang, Malacca and Singapore were united under the administration of a governor seated initially in Penang until 1832 but in Singapore thereafter. In 1826 G. D. Coleman arrived. His contribution to the development of the town and its architecture were to mould its general appearance.

The town area began to take on a neater appearance. By 1830, the swamps south of the Singapore River were filled and drained; Chinatown, the Chuliah Kampong and Commercial Square were established, and the Esplanade was a permanent feature. By 1842, there were some 3,609 houses and the town extended east-west from Rochor Canal to Pagoda Street and inland from the sea to Selegie Road, Hill Street, across the new Coleman's bridge, completed in 1840, and along New Bridge Road.

may be seen the wearied travellers or residents.... Indeed, The extent of the town remained virtually unchanged for the next 20 years although the on a fine starry night, standing there, on the sea-wall of the bay, with the stillness around only broken by the population more than doubled, from 35,389 in 1840 gentle ripple of the wavelets at one's feet, it is not difficult to 81,734 in 1860. The increased density was especially felt in Chinatown and Kampong Glam while gazing on the houses, the lights, the figures, and the heavy leafed shrubbery in front, to imagine oneself amid in the vicinity of the Sultan's domain which, by 1840, was relatively urbanised. Even the main the garden palaces of the Arabian Nights. European residential area around Beach Road and It was the opening up of the island by the Eurothe Esplanade had, by the standards of the day, become overcrowded. Gordon Forbes Davidson, a peans for agricultural estates from the 1830s to businessman, wrote of the area in his book Trade the 1860s which accelerated the expansion of and Travel in the Far East (London: 1846): "Pleasant, the town westward. To the northeast, the swampy, however, as is this part of the suburbs, it is gradually low-lying lands between Serangoon Road and the

being deserted for country situations, where the hot winds of July, August, and September are not so much felt, and where the nights are cooler than on the sea-shore." By the 1860s many houses in the Beach Road and Esplanade area had been converted into hotels or boarding houses. John Cameron in his book *Our Tropical Possessions in Malayan India* (London: 1865) wrote:

To the line of buildings fronting the beach on this side of the river, extending from the church for a quarter of a mile eastward, more perhaps than to any other feature, Singapore owes its pretty appearance, viewed from the harbour. These, as I have said before, though the finest of them are hotels now, were once the residences of the early merchants, and are large and of elegant construction; they each cover a considerable space of ground and have compounds or gardens around. It is a very fine sight from the beach to see these houses lit up at night, the brilliant argand lamps in use shedding a flood of light round the lofty white pillars and colonnades of the upper storeys, while the lower parts of the buildings are hid by the shrubbery of the gardens in front. Every door and window is thrown open to admit the cool night breeze, and gathered round their tables or lolling about in their easy chairs,

For Review only his land in lots. By 1862, there



2.3 South Bridge Road circa 1870.

Kallang River deterred development for another 30 years or so. Initially the Europeans were reluctant to invest in land too distant from town, in spite of government encouragement. Lack of proper roads made access difficult and until 1851 only four led beyond the town into the country — Bukit Timah, Serangoon, Thomson and Changi. Lawlessness was also prevalent and a deterrent to living in relative isolation. A more important reason was the shortness of the land leases issued. In 1828, however, 20 year leases were given with an option for a further 30 years renewal. Further encouragement came in 1843 when land was granted in perpetuity.

By 1835, Europeans were planting nutmeg and other spices on a commercial scale north and west of the town. Much of the forest, particularly in Tanglin, had already been cleared by Chinese squatter gambier and pepper planters who felled the trees surrounding their plots for firewood to boil the gambier leaves in order to extract its commercial product. When the soil was exhausted, they moved to virgin land and this process of continual shifting led to the clearing of large areas of forest. J. T. Thomson, government surveyor, 1841–1853, observed that "The district of Tanglin in the beginning of 1843 consisted of barren looking hills covered with short brushwood and lallang".

One of the first Europeans to move into the country was Dr. Thomas Oxley, the colony surgeon. In about 1837 he acquired 173 acres and formed Killiney estate, described in the 1840s as "the finest nutmeg garden". About the same time, William Cuppage, an officer in the postal service, occupied Emerald Hill, and Charles Carnie, a businessman, built the first house in Cairnhill in 1840. Soon other Europeans were moving to "country situations" in the nearby districts of Claymore and Tanglin.

By about 1860, the nutmeg trees succumbed to a blight caused by a species of beetle. The estates, which by now stretched from Pasir Panjang to Adam Road through Tanglin, Claymore and Bukit Timah Road, gradually failed. Some owners retained their holdings and erected houses for rental. Cuppage, for example, built Fern Cottage circa 1850 as his residence and rented out the first house he had built, Erin Lodge, on Emerald Hill. His son-in-law, Edwin Koek, added Claregrove on purchasing the entire estate after his father-in-law's death in 1872. When George Garden Nicoll offered his 150 acre Sri Menanti estate for sale in 1859 there was already a house on the estate. Other owners sold their estates which were then parcelled out into building lots and resold by the new proprietors. The process was continual, and the land was subsequently further subdivided into ever smaller lots. By the 1870s, nearly all of the nutmeg plantations had been transformed into large, pleasant and exclusive residential suburbs.

The houses that stood on the wooded and undulating hills of Tanglin and Claymore between 1850 and 1880 were named after the estates of their European owners and many of the names survive to this day as road and place names — Tyersall, Chatsworth, Ardmore, Dalvey, Irwell Bank, Orange Grove and Cairnhill. A network of roads was formed along the original plantation carriageways or along their boundaries. Grange Road, Dalvey Road, Emerald Hill Road, Scotts Road, Duxton Hill, Oxley Road, Prinsep Street and Spottiswoode Park Road, to name a few, were roads which originated in this way.

Thomas Oxley's nutmeg estate provides a good example of what transpired after the failure. The land lay within an area bounded by Orchard Road, Grange Road, Leonie Hill Road, River Valley Road and Tank Road. In 1850, Oxley began to dispose of his land in lots. By 1862, there were 38 houses within Agricultural activity was not limited to the Tanthe estate, mostly along St Thomas Walk and the glin and Claymore areas, however. Further east, loseph Balestier, the American consul, speculated in area between Killiney and Oxley Roads. By 1880, a network of roads was completed - the present sugar planting in Serangoon. Balestier's estate of over 1000 acres lay between Balestier Road and Kallang Somerset Road, Devonshire Road, Exeter Road, St. Thomas Walk, Eber Road, Dublin Road, Lloyd Road River. Bevond was Montgomerie's Kallangdale esand Oxley Road. Oxley Drive was a private driveway tate, also about 1000 acres, acquired in 1825. Both were planted around 1830 but failed by the late 1840s that led up Oxley's Hill where there were five houses: due to poor sugar prices in the world market. Pavilion, Bargany House, Bargany Lodge, Killiney Bungalow and Killiney House, Oxley's own residence. The eastern part of the island, which would one

A number of Chinese merchants and traders also owned plantations. In the mid-1830s, Seah Eu Chin was reputed to own the largest gambier and pepper plantation on the island - an estate that extended from Tanglin Road to Bukit Timah. Choa Chong Long, who died in China in 1837, was probably one of the first Chinese to manage a plantation in the country while he continued to live in Commercial Square. He owned a hill in Telok Blangah which was named after him. Hoo Ah Kay, or Whampoa, went as far as Katong to plant coconuts even before Thomas Crane started planting cotton there in February of 1836. Eventually some of the Chinese merchants settled outside the town while others built holiday bungalows on their country estates which, if not too distant from town, became homes for the secondary wives. Alfred Russel Wallace, who was in Singapore in the 1850s, remarked in his The Malay Archipelago (London: 1869) that the Chinese merchant

...has a handsome warehouse or shop in town and a good house in the country. He keeps a fine horse and gig, and every evening may be seen taking a drive bareheaded to enjoy the cool breeze. He is rich, he owns several retail shops and trading schooners, he lends money at high interest and on good security, he makes hard bargains and gets fatter and richer each year.



^{2.4} The Singapore River circa 1870.

day become the densely populated residential suburbs of Katong, Geylang and Siglap, was opened up mainly by European planters. Francis Bernard, Farguhar's brother-in-law, was probably the first European to own land in the district - a coconut estate in Tanjong Katong in 1823. From 1830 onwards, plots of land in the area stretching from Siglap Road to the Geylang River and from Geylang Road to the sea were granted to individuals in large parcels ranging from 20 to 500 acres. By about 1840 most of the land had been planted with coconut trees as the sandy soil of the area was well suited to their cultivation. Access to the area was mainly by sea as the overland route entailed crossing the Kallang River, bridged only in 1842. Gordon Forbes Davidson wrote of this developments:

To the eastward of the town of Singapore, extends a considerable plain, on which the sugar and coconut plantations stand. To the westward and inland of the town, the country consists almost entirely of hill and dale; and its aspect is very striking and picturesque. On many of these miniature (for they are but miniature) hills, stand pretty bungalows, surrounded with nutmeg and fruit trees: they are delightful residences.

Other pioneer estate owners on the eastern part of the island were Thomas Dunman, Thomas Owen Crane, Sir Jose d'Almeida, the Little family, John Armstrong, W.R. George and Hoo Ah Kay. Crane and d'Almeida at Perseverance estate, at the eastern corner of Paya Lebar Road and Changi Road junction, tried cotton planting without success. Thomas Dunman eventually extended his holdings through purchasing Crane's and George's estates; by the 1870s his plantation, The Grove, was 688 acres. D'Almeida also owned Confederate estate, between Haig Road and Still Road. When the cotton failed, he planted coconuts, and produced rum and molasses. Next to Confederate estate were two other well-known plantations: John Armstrong's 325-acre estate, which extended from the sea inland to Changi Road and from Still Road to Siglap Canal; and beyond, the 450-acre Siglap estate owned by Dr Robert Little.