

## The Nation's 'Other' Housing Project: Pearlbank, Pandan Valley, and Singapore's Private High-rise Housing Landscape

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### Singapore's 'other' housing project

Post-colonial Singapore in the 1960s was a massive landscape of transformation, as the young city-state grappled with the crises of global economic survival, as well as other internal pressures. Among these was the need for the newly founded state (Singapore gained its independence in 1965) to stabilise its rapidly growing immigrant population that was already settling in the urban areas and in squatter villages that proliferated in and around the fringes of the city. These informal settlements were characterised by overcrowded living conditions – a direct outcome of inefficiencies in the housing provided by the British colonial government.<sup>1</sup> Singapore's Housing and Development Board (HDB) was founded in 1960 to clear the congestion in the shophouses and slums, and resettle the nation in modern living environments – the public housing flats.<sup>2</sup> The HDB project is a major commitment by the government towards providing affordable, clean and sanitary housing to its people through its comprehensive urban redevelopments, visibly rendering efficacy to the young government's transformative abilities in the built environment. A mere two to three decades saw the nation quickly recover from its post-war, post-independence crisis and rise up as an emergent developing economy onto the global platform.<sup>3</sup> Modernist HDB flats and their newly created townscapes had sprung up in the span of a decade, beginning in the urban fringes around the city core, and gradually spreading out to the suburban areas. These new estates replaced

the old ways of life of a past Singapore with modern and pragmatic living. Even today, Singapore's HDB project maintains a dominant role in the nation's developmental narrative, and has become seen worldwide as a public housing success story.<sup>4</sup>

Yet, by the 1970s, along with the dominant narrative of nation-building via the public housing project, an alternative privatised landscape of new high-rise housing types was also emerging in and around the city, extending towards the urban fringes. These were unlike the widespread standardised architectural forms – essentially basic block-forms – of the public housing project. Instead, these privatised high-rise housing developments varied in typology, reflecting in their construction different concerns from that of the public housing provisions. At the start, these housing schemes formed part of an overarching strategy of state-facilitated urban renewal, aimed at reinvigorating the city centre as the nation looked to globalise its economy. These were housing solutions specifically aimed at a growing affluent middle-class, who were the necessary highly-skilled workforce for a globalising city. This was a middle-class that was beginning to aspire to more than what the basic HDB models could provide. In 1972, the government introduced the concept – foreign until then – of the gated condominium as a measure to control land-use, due to a surge in housing aspirations for 'landed' residences in the suburbs. The term landed housing in Singapore refers to various iterations of the free-standing house where the land

is privately-owned.<sup>5</sup> The Singapore condominium was a localised translation of landed housing set into high-rise prototypes, giving architectural form to a new suburban landscape of contained gentrified neighbourhoods. Unique to Singapore's privatised high-rise housing developments was the intervention of the state in its close regulation of scarce land. Singapore's private high-rise housing developments thus reflect a nation's attitude towards its land as a resource, and its subsequent imaginations and productions of more 'land' in the construction of high-rise housing estates. State intervention also maximised these housing developments as part of wider national aspirations towards the status of a global city, and for its citizens, a 'green and gracious' Singaporean society.

In this article, I will critically re-trace the intertwined histories, with particular focus on the conceptions, of two notable examples of Singapore's early privatised high-rise housing developments in the 1970s. The Pearlbank Apartments and the Pandan Valley Condominium were both designed by Singaporean architect Tan Cheng Siong of Archurban Architects Planners.<sup>6</sup> Completed in 1976, the Pearlbank was one of the early luxury housing sites planned along the urban fringe of Pearl's Hill, witnessing Singapore's post-independence transformation. In the midst of the Pearlbank's construction, the government implemented the condominium concept in 1972, an originally foreign housing concept that would be imported, localised and pioneered later in the test-site of the Pandan Valley Condominium, completed in 1978. Starting from the Pearlbank's conceptual beginnings in 1969, this article examines two of Singapore's early private high-rise housing developments as an architectural confluence of Singaporean state-led visions and a people's housing aspirations.

### **New high-rise housing for a high-rise city**

November 1969, Singapore. The Third Sale of Urban Renewal Sites for Private Development

included 'fourteen premium parcels [of land] within the Central Area' up for public tender.<sup>7</sup> This was the third instalment of an ongoing series of land sales started in 1967, enacting the state's determined control and management of its land as scant national resource. The scarcity of land – the island republic has an area of just 580km<sup>2</sup> – was a major concern of the newly-formed state, a main motivation behind much of the state's urban redevelopment efforts.<sup>8</sup> Yet, its small physical size contrasted with the nation's growing global ambitions. The land sales and the urban renewal programmes were aimed at bolstering private sector development for a new city centre, with the state taking the lead in the mass accumulation of small privately-owned land fragments, a result of early colonial land subdivisions.<sup>9</sup> Ultimately, the goal was to stamp out 'central area slums and urban sprawl caused by a decaying city centre'.<sup>10</sup> The state intended to develop the tourism industry, starting from a revitalised Central Area, hoping to woo large multi-national corporations into Singapore.<sup>11</sup> New privatised urban housing alternatives situated along the city fringes of Beach Road and Chinatown, were outcomes of the successful first sale of sites in 1967. The result was the development of then-novel block-on-podium building types that included high-rise housing atop malls on the luxurious Golden Mile Strip along Beach Road, and the People's Park market on the edges of Chinatown, earlier cleared out by a fire in 1966.<sup>12</sup> Parcel Eleven on the Third Sale of Sites was a two-acre (approximately eight thousand square metre) triangular plot of hillside land beside Outram Park to the west, and the tree-capped Pearl's Hill to the north, earmarked as the site of a luxury flat complex.<sup>13</sup> The Pearlbank site promised a new typology of high-rise housing developments that sought to distinguish itself from the main decade-old narrative of the public housing programme.

Singapore's early public housing flats were built on pragmatic modernist principles, in order to quickly house a large working population. These

typically took the form of reinforced concrete living units with standardised sizes, ranging from one- to three-room flats, stacked and organised into high-rise and high-density rectilinear blocks. These flats came equipped with basic facilities of clean water and electricity supply, and sanitary flush toilets, encouraging a new standard of living seen as modern, clean and highly rational. The early flats were typically slab-blocks that were 'horizontally divided into segments of six to eight dwelling units per storey with all the doors [and some windows] facing into the short corridor and stairs-landing, thus keeping all these public spaces within the visual attention of the residents'.<sup>14</sup> To minimise construction costs, the newly-introduced mechanical lifts did not serve every floor, and one had to use the stairs (climbing up or down two to three floors) to connect from home to lift lobby. The corridors and void deck, together with neighbourhood amenities – from public playgrounds and sports courts, to fresh produce and hawker markets, and town centres – serve to reproduce the familiar social and recreational settings of the *kampong* village and informal settlements of the recent past, breaking down the monotony of the block of flats within an even larger estate.<sup>15</sup> [Fig. 1]

Singapore's public housing programme was more than the physical output of architecture. The blocks were erected upon the former sites of slums and squatter neighbourhoods, cleared when the state acquired huge tracts of land at below market prices, rationalised to the public as being 'in the interest of "national development"'.<sup>16</sup> The Home Ownership Scheme was introduced in 1964 to encourage Singaporeans, including lower-income groups, to change from being tenants, to home owners. This was coupled with a financing model set in place in 1968 that allowed Singaporeans to withdraw up to 80 percent of their savings from the Central Provident Fund to pay for their homes, instilling in the new-found citizenry an interest in issues of national development, having now a stake in the land, albeit

a high-rise plot of 'land' up in the air.<sup>17</sup> The sociologist Chua Beng-Huat notes that the home ownership scheme had a related effect on employment and ensured a steadily growing workforce, putting the carrot before the cart of national survival.<sup>18</sup> In this way, HDB's extensive public-housing programme was visible and lived-in evidence of the state's efficacy, reminding Singaporeans that their living conditions were steadily improving.<sup>19</sup> Moreover, the expansive tangibility and repetitiveness of modern HDB towns and estates, dramatically transforming Singapore's post-war, post-colonial landscape, was seen as instrumental to the shaping of once informal squatter villagers into national citizens. Credited with rooting a once migrant population to their new urban 'homeland' in the public high-rise flats, the HDB project naturally formed a dominant narrative in the nation's housing success story.<sup>20</sup> By the 1970s, two waves of new satellite HDB towns had been built, with the earliest towns around the city centre where the most squalid congestions once were.<sup>21</sup>

Complementary to the HDB project was the urban redevelopment of the city centre. The sale of sites programme encouraged private development to happen in accordance to the state's vision of urban renewal – similar to the HDB process, with the government acquiring plots of land, vacant or otherwise. As explained earlier, the state facilitated private development by clearing decrepit and congested areas, consolidating the land into larger plots ripe for development.<sup>22</sup> Significantly, this developmental ideology and control of land befitted the state's vision of urban renewal and the nation's renewed vision of becoming Asia's 'Instant City', by enabling effective and immediate land clearance to make way for the rapid transformation of Singapore's urban landscape.<sup>23</sup> The Chief Urban Planner noted the private developers' 'great difficulty in obtaining choice sites for proper development'.<sup>24</sup> The government was concerned that many of these developers, if left without support, were unable to finance such

large developments of land, which resulted from the accrual of originally smaller land fragments. Added to this were the problems of having to convince the multiple existing occupants of each fragmented plot to sell their land for redevelopment and to clear away their property. This was especially tricky with the informal settlements that were spreading organically precisely because there was a lack of structure governing the sites and an overt inertia towards any planned redevelopment.<sup>25</sup> To achieve 'instant' change, the Singaporean state exercised its ability to acquire and clear land, re-shaping and re-planning land parcels to then enable private development of the city centre, rationalising its authoritarian top-down approach to planning as the only way for the 'betterment' of Singaporean society and the nation's future.<sup>26</sup>

### **The Pearlbank Apartments: an architecture of 'landed' aspirations**

The winning proposal for Plot Eleven, the Pearlbank Apartments, was designed by Tan Cheng Siong and his team formerly known as Archynamics. The bold proposal exceeded the brief, providing more than just luxury apartments, but considering instead what a housing community for a rising educated middle-income population would look like. While the national developmental narrative and the public housing programme focused on housing solutions to root a population of immigrants and former villagers in the Singaporean homeland, the Pearlbank proposal presented another housing solution for a less-considered and emergent demographic. They were the young, educated professionals who could afford to leave the island-city to look for opportunities abroad. Yet this was the very skilled workforce that the nation envisioned would populate and expand its city core – and the Pearlbank would be the housing solution to bind them to their Singaporean homeland. The cylindrical apartment building was to stand thirty-eight storeys tall, the tallest of residential buildings in Singapore and Southeast Asia at the

time it was completed.<sup>27</sup> The design proposed to be the first fully residential development that had the highest density, containing a compact arrangement of 296 units – the largest number of apartments in a single block at that time – to accommodate approximately one and a half thousand dwellers.<sup>28</sup> In many ways it was an architectural marvel: Brutalist in form and finish, the curved block was a sculptural massing of concrete and shadow of interlocking split-level apartment units, with private staircases inside each unit configuring two or three floors. Each floor had eight apartments in a mix of four-, three- and two-bedroom arrangements. At the top were eight penthouse units complete with roof terraces.<sup>29</sup> [Fig. 2]

Radical for the time, the proposal promised not just high-rise homes, but also a way of living that emphasised the forming of vertical neighbourhoods and communities for a socially and globally mobile skilled workforce.<sup>30</sup> The cylindrical tower maximised the privacy of each apartment unit's living areas and bedrooms, with optimised views that open up along the outer curve to the surrounding Pearl's Hill woods and the emerging skyline of the central business district. On the internal rim, the curved corridor connected main doors with their dedicated lift lobbies, and two apartment units shared a common lift shaft. Also in the internal curve, a system of cantilevering staircases linked kitchens to back entrances and yards. This intentionally zones a shared communal space of domestic work like cooking, washing and cleaning all along the internal towering vertical 'courtyard'. The future resident profile – the young educated family – was implied by the inclusion of a kindergarten on top of the adjoining multi-storey carpark, and a library on the communal deck on the twenty-seventh storey. Perhaps the public sky-deck promoted more than just recreational reading. Drawing on the state's imagination of the urban workforce, here the adults were envisioned as a gentrified community,





Fig. 1



Fig. 2

Fig. 1: Early Housing Development Board flats, Singapore. Photo: Author.

Fig. 2: Pearbank Apartments in the midst of a changing landscape, Singapore. Photo: Author.

expected to share in lifestyle activities provided for by a games and billiard room, and a women's association meeting room, all located on the communal deck.<sup>31</sup> The household would be run with the aid of a domestic worker – a symbol of affluence, expected to share in the routines of daily domestic duties played out in the internal matrix of service yards, backdoors and cantilevering staircases. Each family would be car-mobile – with the provision of one parking lot per unit.<sup>32</sup> The modern house was to shape a modern and affluent urban lifestyle.

The sale of sites, and the public housing – or re-housing – programme developed in the 1970s reflected time and again the nation's insecurities about land scarcity. The modern city's housing project was really an experiment that sought to re-imagine notions of land and the typologies of landed housing in a new urban context, recreating 'land' and its related ideologies, shifting homes and communities off the ground and up into their new high-rise habitats. Yet, Tan Cheng Siong recalls that in the 1960s, people were not accustomed to city living, relating past urban contexts in their collective memories to cramped and congested slums and shophouses. Conversely, the wealthy owned tracts of land on the outskirts of the city, where they lived on landed estates.<sup>33</sup> Tan considered these aspirations for the Pearlbank; at the same time, he was mindful that the Singaporean majority had now grown accustomed to a rather rational and basic vision of 'home' as set out by the low-cost HDB living.<sup>34</sup> The Pearlbank would surely have to provide much more than the standardised shoe-box living.

The split-level floors of each Pearlbank unit were meant to create a modified version of a landed house – or rather the much favoured terrace house that was luxurious yet still affordable to middle-income buyers. The split levels resulted in a perception of living in a landed house with multiple storeys. There were two or three floors depending on the unit size, with all floors accessible by internal

staircases. In the Pearlbank's three-bedroom apartment, the lift lobby led through the main entrance, past the kitchen and into the dining room. One then ascended a flight of stairs to the living room above on an intermediate level, with two adjoining bedrooms. Yet above this was another floor with one more bedroom and an 'outdoor' service yard. [Fig. 3] The layout was reversed in the four-bedroom unit, where one entered from the 'top' floor with the kitchen and dining room, and made one's way down first to the living room with two adjoining bedrooms, and down again to another two rooms. In the pent-house, one entered through the middle 'ground' floor and either went upstairs to the 'roof terrace' – or downstairs to the 'basement'. The Pearlbank was a matrix of landed properties vertically interlocking one 'house' with another – perhaps a construction of pieces of 'land' stacked one atop another. In this way, the Pearlbank was a national site of experiment, providing an architectural testbed to solve the nation's land scarcity. As a housing solution, it re-interpreted and re-configured spatially the private 'landed' estate aspirations of a Singaporean middle-class population into new architectural expressions of the 'house' in the high-rise building.

Tan's vision of new stacked architectural 'landscapes' of the suburban house in the Pearlbank Apartments was perhaps derived from popular imaginings of the ideal home. To them, the ideal was manifested in the form of a freestanding, single-unit suburban house – or else its variations of conjoined semi-detached or terraced houses. The geographer Paul Mitchell Hess claims that the fantasies and ideas of suburbia conjure up spatially a generic 'unbounded landscape of sprawl', not necessarily tied to a specific place, time or site.<sup>35</sup> Contrastingly, in land-scarce Singapore, the visions of suburban sprawl stand in vast opposition to the pragmatism, economic and spatial rationalities and limitations brought about in the majority of public housing estates. Social anthropologist Yao Souchou describes the ideals of Singaporean

'upmarket residencies' to include privacy in the form of 'individual allotments' of homogenised dwellings that promised a 'generous living space' comprised of gardens and yards (and even swimming pools), that became spatial metaphors for a gentrified familial lifestyle of 'leisure' and 'home away from work'.<sup>36</sup> Yao illustrates these instances as 'weekend ritual[s] of washing the family car, having perhaps a sandpit or a swing for the kids in the backyard, and of course the endless toil of Ajax and Pine-O-Clean by foreign maids' in the suburban home.<sup>37</sup> Understood as such, 'leisure' was a privilege set apart from the workplace. The affluent Singaporean house was imagined as a leisurely suburban home, set outside of the city's workplaces.

### **Housing a new middle class**

Construction of the Pearlbank started in the middle of 1970, with an expected completion date three and a half years hence. Yet the unfamiliarity of such an unprecedented building required new construction technologies for the foundation and structural walls that had to be sourced and imported from outside Singapore. This was owed to the sheer density and height of the building, as well as the complexities caused by the matrix of interlocking housing units with interiors that stretched vertically across floors.<sup>38</sup> In addition there was a series of delays due to construction mishaps, including a fire in 1972 causing the death of two workers, as well as an acute material and labour shortage in the construction industry. All of this delayed the building's completion by one and a half years; the Pearlbank was finally completed in 1976.<sup>39</sup> During the Pearlbank's prolonged construction, the private high-rise housing landscape was actively changing in order to cope with the housing needs and aspirations of a globalising Singapore and its growing middle-class population.

Singapore's growing affluent population in the 1970's was the result of the successful restructuring of the economy and labour markets over

the previous decade, launching Singapore as one of Asia's 'miracle tiger' economies by the 1980s. The financial crisis of 1985 saw the city-state shift away from domestic markets towards 'global city' status – Singapore's vision of itself that was already in the making since the 1970s.<sup>40</sup> Concomitant to the nation's movement up the developmental ladder was the rising affluence of its people, attributed to an efficient workforce that bred a successful economy. Here was a well-rehearsed mantra that translated spatially into the public's imagination of housing – aspirations extending beyond the levels of comfort of the HDB flat. A wave of newfound interest and a sudden rush for terrace and semi-detached houses during the property boom became a cause for alarm for the government.<sup>41</sup> The state's concerns over land scarcity and the constant need to carefully plan urban development was threatened by the impending 'wasteful sprawl of low-density housing developments of small home plots in the suburban area of Singapore'.<sup>42</sup>

Alongside the Pearlbank, other privatised developments of luxury apartments were expanding upon new vocabularies of landed and leisurely living environments of a shrinking suburbia in a rapidly urbanising Singapore, incorporating an array of innovative technologies that targeted young, modern and cultured households. A promising string of new housing developments were planned, matching standards of bungalow-size flats, large swimming pools and spacious landscaped surroundings.<sup>43</sup> The competition of housing towers ranged from the thirteen-storey Maxima (completed in 1972), 'home of gadgets, sounds and slick mechanization'; to the twenty-eight-storey Beverly Mai (completed in 1974), boasting split-level maisonettes; to 'Asia's Choicest Apartments' in the space-age paraboloid forms of the twenty-five-storey Futura (completed in 1976). All three projects formed part of an evolving series of high-rise housing projects conceptualised around the idea of 'bungalows-in-the-air'.<sup>44</sup>

Yet the concept of a private high-rise house posed problems for residents. Outside the private interiors of these apartments, living in flats meant that neighbours were effectively 'sharing the same roof, same lift, same staircase, same walls and same grounds'.<sup>45</sup> These 'same grounds' revealed maintenance costs for the very luxurious shared amenities, including swimming pools, landscaped gardens and sports courts – and in the case of the Pearlbank, the sky deck with its recreational rooms. Home-owners of the luxury Hilltops apartments in the upmarket Cairnhill Circle district became embroiled in a legal battle with the developer over lapses in the overseeing of the property. All 103 families experienced a 'dry spell' over twenty-four hours when the water pump failed to work.<sup>46</sup> One 1971 newspaper article reminded buyers of private high-rise apartments to be mindful of these 'unexpected' expenditures – perhaps a reflection of the public's scepticism towards these private yet communal arrangements.<sup>47</sup>

### **Pandan Valley Condominium: suburban housing dreams**

16 May 1972. The Ministry of National Development expressed their concerns to the Singapore Institute of Architects (SIA) over 'wasteful land development practices' specifically relating to the low-yield land-use in the suburban areas. Increased public adoption of terrace housing in the suburbs resulted in 'problems of inadequate and poorly maintained open space and other common facilities' within these private housing estates. The trend was for developers of these suburban estates to subdivide sites into small fenced plots with pocket-sized front yards, leaving very little room for public green space in the neighbourhood.<sup>48</sup> The SIA commissioned a study to provide an understanding and overview of how the foreign condominium housing typology was 'applied abroad, including a historical review and a look at the differences between a condominium and co-operative housing' among other goals.<sup>49</sup> The condominium, a form of gated residential

community, was understood as a 'global' housing concept that Singapore borrowed from its western peers. The geographer Choon-Piew Pow lists some common variants of these gated communities, sited within suburban estates that project and promote images of leisurely living outside of the city. These fenced-in establishments become exclusionary settings for the privileged classes to socialise within 'leisure clubs', with the gate becoming a symbol of social distinction and keeping within its boundaries the estate's high property value.<sup>50</sup>

Differentiating from the definitions of the 'condominium housing' as interpreted and expressed overseas, the 1972 concept report presented instead a Singaporean condominium that was first and foremost a set of planning parameters that would 'encourage more intensive use of scarce land, preserve more greenery and open spaces for communal recreation, [and] secure the proper maintenance of community amenities and facilities in housing estates and [private] apartment blocks'.<sup>51</sup> From an architectural standpoint, the Singaporean condominium was not defined by any specific distinguishing built features. On the contrary, many aspects of communal amenities such as the swimming pools, children's playgrounds, and sports courts were already common features provided in luxury apartments.<sup>52</sup> What was new, was that the condominium concept was to guide the specific land-use and planning of affluent housing solutions in the suburban areas of Singapore.<sup>53</sup> This was perhaps aligned with the state's shifting focus away from the city centre to the suburban zones, which now required land renewal and intensification strategies.

In 1972, upon the government's implementation of the condominium concept, the Pearlbank's architects submitted a proposal for a new condominium project to the planning authority befitting the requirements stipulated by the condominium guidelines.<sup>54</sup> Different from the dense tower of the Pearlbank,

the Pandan Valley was a gated and fenced-in residential scheme with a 'generous' landscaped natural valley covering a twenty-acre (approximately eight hectare) site, set outside of the city and well-lodged in a wooded suburban site off Holland Road, regarded as one of Singapore's exclusive residential districts.<sup>55</sup> [Fig. 4] When completed in 1978, the landscaped and hilly perimeter all around the Pandan Valley site contained a geography of low- to high-rise housing arranged in a variety of sprawling slab-blocks, stepped-blocks and point towers. Seven blocks in total, the blocks presented residents with a choice of thirteen different plan layouts. In similar fashion to the housing units of the Pearlbank Apartments, the units of the Pandan Valley were conceived as part of the landed housing logic. The different permutation of the units in the slab, stepped or point blocks were modelled after the terrace house, the semi-detached house, or the stand-alone bungalow.<sup>56</sup> The apartments in the stepped-blocks were 'expected to be more popular among Singaporeans because they have a single level layout, similar to conventional semi-detached houses but with private greens and one house elevated over the other'.<sup>57</sup> [Fig. 5, 6] Again, this logic of landed housing typologies set within the density of urban blocks, in turn situated in the context of the Singaporean suburbs, presented an urbanity that was less-than urban. Here was an interpretation of the suburban dream home, albeit stacked into high-rise block configurations catering to the ideals of the affluent classes. As well as providing middle-class housing, the Pandan Valley was also housing for a new group, the foreign talent, both of which were to drive the growth of Singapore's new global city.<sup>58</sup>

### **The Singaporean condominium: from suburbia to green and gracious city**

The imagination – and imaginability – of the suburban dream home was part of a wider scheme of national campaigns and policies aimed at presenting Singapore as a globally-oriented city and society, reflecting a continuum of progress in the

national developmental narrative. Not only was the Singaporean condominium a viable housing form for the growing affluent populations in the global city, it was also a way to inculcate in Singaporean citizens the state's vision of a green and gracious society.<sup>59</sup> This was evident in the condominium concept's guidelines that rejected the sprawl of earlier private housing development, that 'cut up [limited suburban land] into pocket-handkerchief sizes so that the development of communal facilities is not possible'.<sup>60</sup> Instead, the guidelines facilitated a suburban landscape strategy in which future private housing development would contribute on an urban scale to the government's garden city vision, introduced by the Prime Minister Lee Kuan Yew in 1967. The Singaporean condominium's push for intensive use of land further intensified the existing suburban greenery. Developers had to 'preserve the natural features of the land while ... improv[ing] the living environment and establish[ing] communal facilities in a housing estate'.<sup>61</sup> Spatially this had the impact of developers amassing smaller land plots into larger condominium estates, within which only 20 percent of the land was allowed to be built-up. The rest was – by the efforts of the developers – to be intensively landscaped.<sup>62</sup> The Singaporean condominium extended the state's efforts to beautify the city into the suburbs. The Pandan Valley site, the largest of suburban housing sites in the 1970s, produced 'more' suburban land by making the original suburban landscape greener, and making dense 'layers' of suburban housing stacked one a top another.

In addition to the garden city concept, the government introduced the Gracious Singaporean Society in 1969, addressing the noticeably increase in affluent classes and their emerging demands for better social culture and standards of living, and perhaps paving the way forward for the global city. This campaign aimed at an education of the public, with the Prime Minister holding up 'gracious living' as the 'new way of life' for Singaporeans, a result



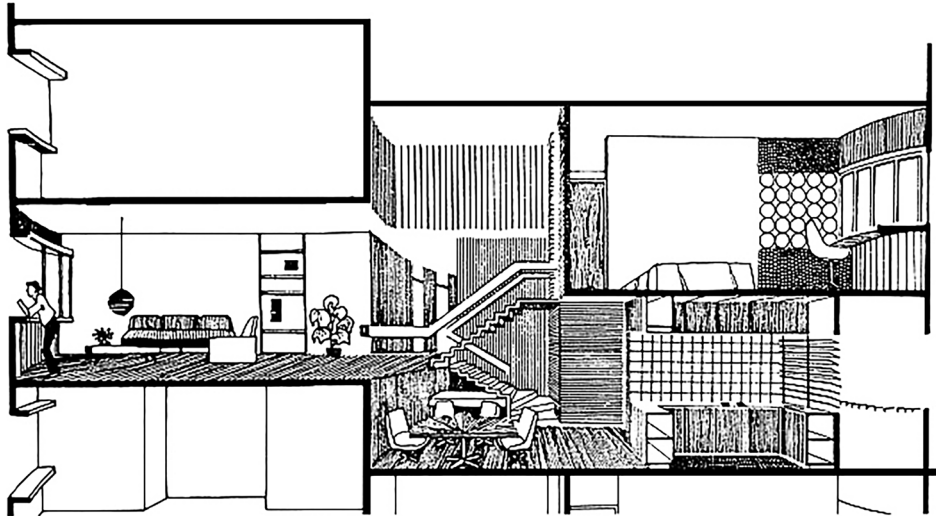


Fig 3: Section of a split-level three-bedroom unit of the Pearlbank Apartments. Image: Courtesy of Archurban Architects Planners.

Fig 4: Slab, stepped and point blocks set in the garden suburbia of the Pandan Valley Condominium. Photo courtesy of Archurban Architects Planners.

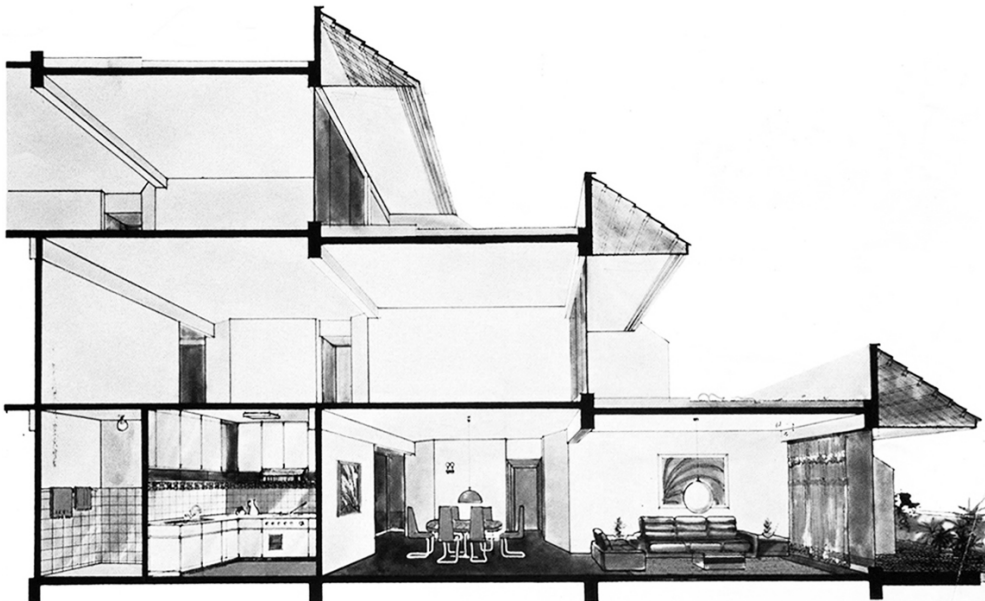
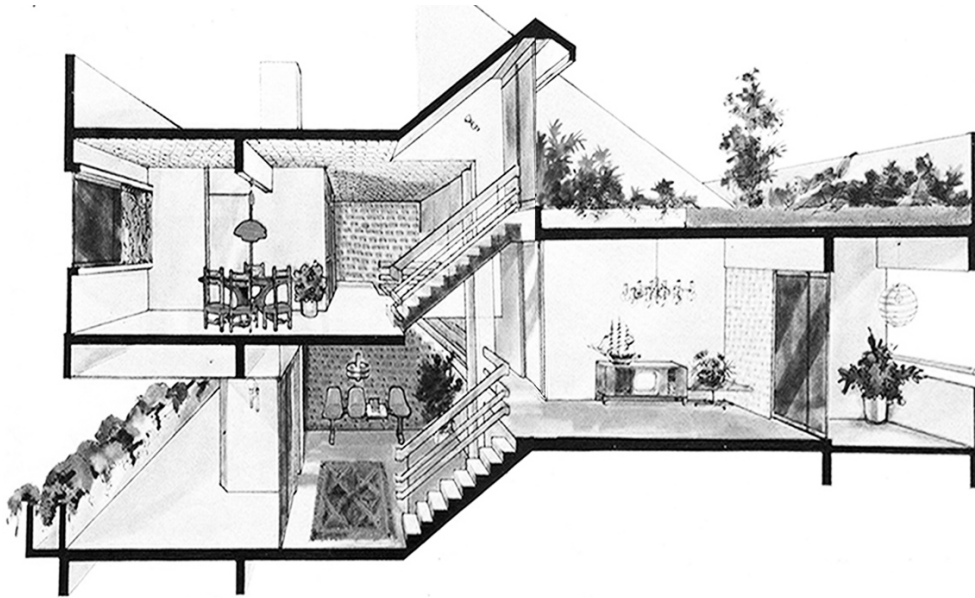


Fig 5: High-rise typologies of the landed house, Unit Type G of the Pandan Valley. Image courtesy of Archurban Architects Planners.

Fig 6: High-rise typologies of the landed house, Unit Type L of the Pandan Valley. Image courtesy of Archurban Architects Planners.

of hard work in building the nation, who now could afford to 'strive for social and cultural goals'.<sup>63</sup> This campaign went hand in hand with the adoption of the Singaporean condominium by a newly cultured gentry who could now afford to look outside of their daily work and home routine at a new form of 'leisurely' and 'cultured' lifestyle. The campaign also projected the 'gracious' and 'cultured' citizenry as essential to the global city. The Singaporean condominium was perhaps an incubator of Singaporean affluent society, presenting a living environment that emphasised good social behaviour in a housing utopia. Inside the Singaporean condominium, there would be none of the boundary fences that ungraciously divided up land, property, and neighbourly interactions, most associated with those sprawling low-rise housing estates that the condominium was expected to tackle and replace.<sup>64</sup> With the vanished dividers, the 'condominium dweller [would] literally step out from his doorway into an area under common use and joint ownership'.<sup>65</sup>

And this was expressed in the Pandan Valley. Outside of the individual apartment units was a pedestrianised landscaped site, safe for the residents to roam freely within, unencumbered by roadside traffic. Vehicular movements and car-parks were kept to the peripheral front of the estate, while the slab blocks lined the back of the valley in a crescent shape.<sup>66</sup> This produced 'ample and safe play-grounds for social integration and interaction among neighbours of all ages and at the same time provided certain minimum recreational and sporting facilities for the neighbourhood'.<sup>67</sup> As part of its landscaped grounds there was a sprinkling of recreational amenities: a large swimming pool consisting of a children's wading pool and a twenty-five-metre long competition pool, sun decks for poolside parties and sunbathing, tennis and squash courts, jogging tracks, putting greens and even a lake.<sup>68</sup> And there were additional services including a kindergarten with an adjoining playground, music school, ballet school, shops and cafes on the ground floors of the

blocks facing the front main road and accessible to the non-resident public.<sup>69</sup> In a radical manner, the Pandan Valley's sprawling landscape of internal suburbia was originally designed to be fence-free, relying instead on the natural topography to define the development's perimeters.<sup>70</sup> After four years of inhabitation, the large perimeter of the sprawling Pandan Valley had to be fenced up, as residents became victims of theft, burglary, and vandalism, particularly to their cars.<sup>71</sup> Behind its perimeter the Singaporean condominium represented a 'gracious and cultured' society, extending from the revolutionary vanishing property fences, where families were 'encouraged to be less self-centred and to participate in community activities and more particularly in decision-taking on the management and maintenance of the condominium'.<sup>72</sup>

This raises the issue of the contentious and ambiguous private-yet-public, exclusive-yet-shared spatial and programmatic arrangements that the condominium constituted within its perimeter walls. The fenceless private house that envisioned neighbours sharing communal infrastructure and recreational facilities as part of the common 'ground-scape' already caused friction in the private apartments preceding the implementation of the Singaporean condominium. Even the Pearlbank was facing its own set of private/public problems only two years after its completion. For a whole month, all 296 housing units of the Pearlbank were inconvenienced by the breakdown of seven of its nine elevators, including the fire-safety lifts. The residents were left uncertain about who would be responsible for rectifying the issue, since the lifts were in the ambiguous zone of publicly shared infrastructure, which in this case fell under the jurisdiction of a badly functioning developer and management agent.<sup>73</sup> Taking lessons from these types of private housing developments, the state took steps to further refine the Land Strata Act (originally passed in 1967). This act was now to 'facilitate the subdivision of land [and air-space]



into strata' in which all the units in a building could be separately owned, allowing 'flat owners [rather than developers] to form an association to look after their own interests [such as maintenance of shared facilities] some time after purchase'.<sup>74</sup>

In a similar process to the HDB resettlement programme, physical land has been re-conceptualised into abstract notions of air-space, an inevitable transition for the high-rise, land-scarce city. The private high-rise housing landscape was a walled-in private neighbourhood, containing a paradisiacal environment of landscape and leisure that was shared and needed to be continually maintained, and which afforded 'magically' – and materially and tangibly – a heightened status to the otherwise imaginary air-space of home. Maintaining this paradisiacal 'ground' was no mean feat: constant discipline required the mowing of lawns, trimming of topiary gardens, clearing of leaves from swimming pools, pumping of fountains, oiling of gym equipment, among many other tasks. Inscribed into this new understanding of private land was the need to ground values of ownership in the management of conceptual property.

Making concrete all of this was the strata-titled Singaporean condominium as 'a complex legal device involving [both] separate [and undivided] interests in common' – recognising the rights of divided 'ownership of air-space' in their high-rise housing interiors, and what remains as communally shared and collectively maintainable 'ground' facilities.<sup>75</sup> Like a microcosm of Singaporean society, the cultured classes managed their 'estates' through election of their management corporations and councils who in turn decide the contracting of managing agents to run the countless tasks within their estate. All of these were contained within the neatly delineated property walls of the Singaporean condominium, in which a disappearing suburbia was reinvented as the home for a section of society linked by similar income-strata.

### **Conclusion: (re)visions of housing and Singaporean land**

Singapore's private high-rise housing landscape is a result of an overarching national developmental narrative that posited housing as the perceptible reward of hard work and success, thus becoming a material indicator of achievement and status. Pandering to popular ideas of luxury housing forms that promised more than the standard public housing flat, the aspirational high-rise house was constructed on ambiguous redefinitions of traditional concepts of 'land' translated into 'air-space' assets. Unique to the Singaporean privatised high-rise housing developments was the state's conception of its land as a limited resource requiring of constant renewal and revisions to maximise land-use potential. State-intervention into a 'haphazard' early privatised housing landscape in the 1970s included the promotion of national ideologies and campaigns for the garden city and a gracious society which largely undergirded the land development policies and motivations behind the production of the Singaporean condominium. Tracing the conceptual beginnings from the Pearlbank to the Pandan Valley, Singapore's early private high-rise housing landscape reveals the evolution of 'land' as architectural concept and its concomitant imagination in the high-rise aspirational house by a nation and its people. Yet Singapore's conceptions of land and its planning is always in constant phases of renewal. In recent years, both the Pearlbank and the Pandan Valley – and their communities – have become threatened by the very motivations that constructed them: the ever-shifting land renewal practices of the Singaporean state and the nation's continued ideologies of upward social mobility.

In February 2018, both the Pearlbank Apartments and the Pandan Valley Condominium were headed for collective en-bloc sales.<sup>76</sup> The Pearlbank, after almost four decades since its residents first moved in, was now a conundrum of problems for some households, with the tired building crossing the

halfway mark of its 99-year land lease.<sup>77</sup> One resident living in a penthouse unit on the top floors of the tower said that on his moving into the Pearlbank in 2000, the unit was 'hidden behind years of neglect' and accumulated garbage.<sup>78</sup> Some units were said to be subdivided and rented out to 'foreign workers, students and working girls from the red light district', a result of liberal use, and management lapses of private space within a shared building.<sup>79</sup> In more recent years, the building's management reported that the maintenance and repair of key facilities needed to be done every two years and costs a hefty \$2.5 million.<sup>80</sup> The Pearlbank was also plagued by leaking pipes that caused flooding and water seepage, the repairs difficult to carry out owing to the unique complications brought about by the interlocking walls and floor plates between units.<sup>81</sup> The once heroic building had been returned to the very conditions of disorder and decay which the Pearlbank was first conceived to stamp out.

The en-bloc sales of the Pearlbank came as no surprise, having already dodged and gone through four earlier unsuccessful rounds of collective votes.<sup>82</sup> Residents voted to agree to the sale of their individual units, before the entire building may be sold to the developer. With the most recent en-bloc process re-started in November 2017, the Pearlbank was soon sold to a developer by February 2018, with the collective sale going through after gaining the prerequisite 80 percent votes of its residents. This marked the start of the Pearlbank's eventual demolition and redevelopment.<sup>83</sup> Here was the obduracy of architecture – inflexible and vulnerable to the destructive forces of deterioration and whims of market forces. The old building's impending replacement was also urban renewal at play – uncannily reminiscent of how the Pearlbank was once a monument of change and a part of a comprehensive urban housing strategy bringing transformation to the backward city of slums of past Singapore. In the slew of other older vertical housing developments of the 1970s that were too

facing threats of en-bloc sales, the Pandan Valley's residents followed suit and called for their collective sales in March 2018, hoping for a chance at a property upgrade.

Since en-bloc sales went through for the Pearlbank, Tan Cheng Siong – the old architect of the post-independence housing development – was tasked to collect 100 percent of the residents' votes to allow the building's historic conservation; this proved to be an impossible task given that some of the aged residents remained uncontactable – their homes left vacant, or else unable to make decisions due to ill health. Tan insists that new models of architectural renewal must be produced for the city's constant re-visioning of land renewal. He asserted that these profit-driven 'processes of en-bloc sales... are disruptive to communities and societies here at large' – setting off a cautionary alarm that 'every home [could become] just a market value to be realised or reaped very quickly'.<sup>84</sup> In a twist of circumstances, the Pearlbank had become Tan's new housing experiment – almost fifty years after its conception. Tan's model of renewal architecture envisions a new twenty-eight-storey semi-circular block of brand new apartments set within multi-storey landscapes of hanging gardens to replace the old carpark block. Topped with a swimming pool on the roof deck, this block of hanging suburbia extended from the original renovated and retro-fitted conserved cylindrical tower, revisiting earlier experiments with land and the landed. [Fig. 7] In both the Pearlbank and the Pandan Valley's lives are a recording of the forces of shifting national agendas and its people's housing desires. At the time of writing, the Pearlbank awaits its demolition – its residents set to move out within a year, while the Pandan Valley Condominium remains unsure of its future plight. Still, their old architect continues experimenting with new concepts of high-rise 'Singaporean land', against the backdrop of a still-shifting landscape.



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Fig 7: The green tower and the conservation of the Pearlbank, c.2015. Image courtesy of Archurban Architects Planners.

## Notes

1. Beng-Huat Chua, *Political Legitimacy and Housing: Stakeholders in Singapore* (London: Routledge, 1997), 134.
2. The shophouse is a vernacular form of housing, seen in most parts of Southeast Asia. In Singapore, the earliest shophouses (1840s) were built by immigrants from Southern China, organised into rows of units along the river banks and eventually forming the bulk of urban development in the city core. Each shophouse had a narrow business-front facing the street. Behind the shopfront and in the floors above were the living spaces. By the 1960s, many of these shophouses were overcrowded with multiple families or tenants living in dark and unsanitary conditions.
3. Ibid. See chapter 7, 'Public Housing and Political Legitimacy', 124–51.
4. Beng-Huat Chua, 'Singapore as Model: Planning Innovations, Knowledge Experts', in *Worlding Cities: Asian Experiments and the Art of Being Global*, ed. Anaya Roy and Aihwa Ong (Oxford: Blackwell Publishing, 2011), 29–54; Koon Hean Cheong, 'The Evolution of HDB Towns', in *50 Years of Urban Planning in Singapore*, ed. Chye Kiang Heng (Singapore: World Scientific Publishing, 2017), 101–25.
5. In essence, these privately-owned land parcels gave home-owners access to their bounded plots of small front garden and backyard, reminiscent of wealthy estates of the past and in the present indicators of material standing in land-scarce Singapore. Landed housing types also include the colonial-influenced bungalow, the semi-detached and terrace house.
6. I am grateful to Mr. Tan Cheng Siong and Archurban Architects Planners for their enthusiastic help in granting me the conversations that form the basis of the discussion regarding the two housing developments in this article.
7. 'Third Sale of Urban Renewal Sites for Private Development', *Journal of the Singapore Institute of Architecture*, no. 38 (January/February, 1970): 2–23.
8. Alan F. C. Choe, 'Objectives in Urban Renewal', *Journal of the Singapore Institute of Architecture*, no. 30 (November, 1968): 2.
9. Alan F. C. Choe, 'The Early Years of Nation-Building: Reflections on Singapore's Urban History', in *50 Years*, ed. Heng, 12–3.
10. Choe, 'Objectives in Urban Renewal', 2.
11. Personal Communication with Tan Cheng Siong, 30 October 2018.
12. 'Urban Renewal Sites for Private Development', *Journal of the Singapore Institute of Architecture*, no. 13/14 (June/July, 1967): 4–19. The architectural historian Eunice Seng records the fire on Christmas night of 1966. Eunice Seng, 'The Podium, The Tower and the "People": The Private Development Of A Public Complex, c. 1965–70', *Proceedings of the Society of Architectural Historians, Australia and New Zealand*, vol. 1 (Gold Coast: SAHANZ, 2013), 220.
13. 'Third Sale', 17; See also: 'Skyline 7', in *Journal of the Singapore Institute of Architecture*, no. 10 (March, 1967): 12–13.
14. Chua, *Political Legitimacy*, 121.
15. Ibid., 120–21.
16. Ibid., 133. See also: M. Castells, L. Goh and R. Y.-W. Kwok, *The Shek Kip Mei Syndrome: Economic Development and Public Housing in Hong Kong and Singapore* (London: Pion Limited, 1990), 267–70.
17. Chua, *Political Legitimacy*, 135. See also: Castells, Goh and Kwok, *Shek Kip Mei Syndrome*, 270–80.
18. Chua, *Political Legitimacy*, 135.
19. Ibid., 139.
20. Eunice Seng, 'Habitation and the Invention of a Nation, Singapore 1936–1979' (PhD in Architecture Thesis, Columbia University, 2015).
21. Cheong, 'Evolution of HDB Towns', 101–3.
22. Castells, Goh and Kwok, *Shek Kip Mei Syndrome*, 267–70; Choe, 'Early Years of Nation-Building', 12–13.
23. Choe, 'Objectives in Urban Renewal', 4–5.
24. Ibid., 3.
25. Ibid.
26. Ibid., 2.
27. Singapore Heritage Society, 'Pearl Bank Apartments', in *Too Young To Die: Giving New Lease of Life to Singapore's Modernist Icons* (Position Paper, Singapore Heritage Society, 2018), 18; See also: 'Cylindrical Tower Provides High Density Accommodation in

- Split-level Apartments', *Building Materials and Equipment Southeast Asia* (April 1976): 35.
28. Ibid.
  29. 'Cylindrical Tower', 34–57.
  30. Personal Communication with Tan, 30 October 2018.
  31. 'Cylindrical Tower', 49.
  32. Ibid., 39 and 44.
  33. Personal Communication with Tan, 30 October 2018
  34. Ibid.
  35. Paul Mitchell Hess, 'Neighbourhoods Apart: Site/ Non-Sight and Suburban Apartments', in *Site Matters: Design Concepts, Histories, and Strategies*, ed. Carol J. Burns and Andrea Kahn (New York, Oxon: Routledge, 2005), 223.
  36. Yao Souchou, 'Halifax, Asia: Cities, Family, and the Unhomely', in *Looking at Culture*, ed. Sanjay Krishnan, Sharaad Kuttan, Lee Weng Choy, Leon Perera, and Jimmy Yap (Singapore: Atres Design and Communications, 1996), 142.
  37. Ibid., 142–3.
  38. 'Cylindrical Tower', 39–41.
  39. Personal Communication with Tan, 30 October 2018. See also: Edward Liu, 'Top Floor Fire in Unfinished Apartments', *The Straits Times*, 22 December 1972, 20; 'Apartment Block Ready at Last', *New Nation*, 10 October 1975, 2.
  40. Selvaraj Velayutham, *Responding to Globalisation: Nation, Culture and Identity in Singapore* (Singapore: ISEAS Publishing, 2007), 83–85.
  41. 'Developers Cash in on C-Plan Concept. House Prices Go Up', *New Nation*, 27 July 1972, 3.
  42. 'Report on Condominiums', *Journal of the Singapore Institute of Architecture*, no. 55 (Nov/Dec, 1972): 2–13.
  43. William Campbell, 'Highrise Goes High Class', *The Straits Times*, 19 June 1970, 8.
  44. All three projects were designed by Timothy Seow and Partners. See: Campbell, 'Highrise Goes High Class', *The Straits Times*; Nellie Har, 'Home of Gadgets, Sounds and Slick Mechanisation', *The Straits Times*, 22 February 1971, 8; 'Private Projects Are Being Delayed', *The Straits Times*, 15 January 1974, 15.
  45. Abby Tan, 'The High Cost of Maintenance that is the Bane of High-rise Living', *New Nation*, 29 May 1972, 12.
  46. "'Dry Spell" Residents of Luxury Flats Send Lawyer's Letter', *The Straits Times*, 23 March 1972, 1; "'Solution" Offer for Water Crisis Apartments', *New Nation*, 23 March 1972, 1.
  47. Tan, 'High Cost of Maintenance'.
  48. Poteik Chia, 'The Condominium Concept – A New Approach to Gracious Living', *The Straits Times*, 17 May 1972, 18.
  49. Cher Soon Tan, 'Architects to Help With Condominiums. Study Will Be Carried Out Soon', *New Nation*, 23 May 1972, 5; See also: 'Report on Condominiums', 2–13.
  50. Ibid.
  51. 'Report on Condominiums', 2.
  52. Abby Tan, 'Up Goes the Price of Houses. Condominium Concept Brings a Property Boom Here', *New Nation*, 31 October 1972, 19.
  53. 'Report on Condominiums', 2.
  54. 'Pandan Valley Condominium Housing', *Journal of the Singapore Institute of Architecture*, no. 73 (Nov/Dec, 1975): 22–27.
  55. Ibid, 22–27. See also: 'Pandan Valley' in *Rumah: Contemporary Architecture of Singapore* (Singapore: Singapore Institute of Architects, 1981), 168–69; 'Pandan Valley Will House 3500', *New Nation*, 29 December 1975, 4.
  56. 'Pandan Valley Condominium Housing', 26.
  57. 'Pandan Valley Will House 3500', *New Nation*.
  58. In 1972, Singapore's then Minister for Foreign Affairs, Mr. S. Rajaratnam, introduced the concept of the Global City in a speech at the Singapore Press Club. This heralded a renewed vision for the island-city that was to look beyond its region, extending Singapore's economic networks out into the world. Some effects of Singapore's pursuit of Global City status was a continued drive to attract foreign investment and talent.
  59. 'Gracious Living' was a phrase introduced in a speech in 1969 by then Prime Minister Mr. Lee Kuan Yew at the opening of a community centre. His speech entitled 'More Gracious Living' addressed the positive results of the 1960s developments in Singapore, pushing Singaporeans towards adopting higher standards of social and cultural awareness. The phrase was adapted into more national slogans around



- the building of a green (garden city) and gracious (cultured) society in the 1970s.
60. Chia, 'A New Approach to Gracious Living', *The Straits Times*.
  61. Ibid.
  62. 'Report on Condominiums', 2.
  63. 'Life Should Be More Than Just Existence', *The Straits Times*, 27 October 1969, 20; See also: Kuan Yew Lee, 'More Gracious Living: Speech by the Prime Minister, Mr. Lee Kuan Yew, on the Occasion of the 9th Anniversary of the Tiong Bahru Community Centre', Ministry of Culture, Singapore, 25 October 1969.
  64. William Campbell, 'Designs For Better Living', *The Straits Times*, 9 January 1973, 12.
  65. Ibid.
  66. 'Pandan Valley Will House 3500'.
  67. Ibid.
  68. Development Bank Singapore, 'The Condo Project That Almost Didn't Happen', accessed 21 January 2019, <https://dbs.com>. See also: 'Swimming Pool at Pandan Valley Condominium', *Journal of the Singapore Institute of Architecture*, no. 112 (May/June 1982), 28.
  69. Ibid. See also: Annie Chia, 'DBS Land Sues Pandan Valley Owners' Council', *Singapore Monitor*, 12 May 1985, 11.
  70. 'Pandan Valley Tightens Security', *The Straits Times*, 28 December 1982, 10.
  71. Ibid.
  72. Campbell, 'Designs For Better Living', *The Straits Times*.
  73. 'The "Invisible" Repairmen at Pearlbank', *The Straits Times*, 12 September 1978, 7.
  74. Tan, 'High Cost of Maintenance'. See also: 'Land Titles (Strata) Act', *Singapore Statutes Online*, 31 July 2009, <https://sso.agc.gov.sg>.
  75. 'Report on Condominiums', 4.
  76. In Singapore, the en-bloc sale of a high-rise housing development, for instance, is one where 'all the units in [the] strata-titled development are sold to a developer', who will then redevelop the land singularly or with adjoining parcels, with the 'proceeds [...] divided amongst all the unit owners'. 'Collective Sale. Land Titles (Strata) Act', Ministry of National Development Strata Titles Board, 16 April 2018, <https://stratatb.gov.sg>. Also see Pei Ting Wong, 'En-bloc Sales "Fracture" Communities', *Today Online*, 10 February 2018, <https://todayonline.com>.
  77. While all HDB flats are capped at 99 years, the privatised high-rise housing developments may range from tenures of 99 to 999 years, to freehold. The Pearlbank has an 'expiry' of 99-years, while the Pandan Valley is actually a freehold property; yet the later development is not immune from en-bloc for a variety of reasons including the ageing estate and the latent opportunities of building larger and taller. In turn, residents of old private housing developments usually want to sell off the property sooner, before prices plummet as buildings reach the end of land-leases. See: Rachel Phua, 'Pearl Bank Apartment Makes 4th Attempt at En-bloc Sale', *Channel News Asia*, 8 July 2017, [www.channelnewsasia.com](http://www.channelnewsasia.com).
  78. Interview with Ed Poole, in Wong She-Reen, 'Cultured Pearl', *Singapore Architect*, No. 250, (2008): 50.
  79. Ibid.
  80. Janice Tai, 'Pearlbank May Not Be Spared the Wrecking Ball', *The Straits Times*, 18 February 2018, <https://straitstimes.com>.
  81. Ibid.
  82. Phua, 'Pearl Bank Apartment Makes 4th Attempt'.
  83. Wong, 'En-bloc Sales "Fracture" Communities'.
  84. Ibid.

### Biography

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