

# Ideologies of 'Upgrading' in Singapore Public Housing: Post-modern Style, Globalisation and Class Construction in the Built Environment

Robbie B. H. Goh

[Paper first received, March 2000; in final form, September 2000]

Summary. Studies of Singapore public housing have tended to emphasise the ways in which urban planning and housing policies have contributed to rapid infrastructural development in the 1970s and 1980s while maintaining racial harmony and providing affordable housing to the majority of the population. In the 1990s, a series of 'upgrading' exercises in many Singapore Housing and Development Board (HDB) estates have signalled a change in the status and function of public housing within Singapore's project to position itself as a global city. These transformations in the built environment are part of a larger process of social transformation not merely in terms of housing policy, but also in terms of issues of governance, class and social mobility, community and value systems. The centrality of public housing in Singapore's built environment, together with the sensitivity of its relationship to social indicators of upward mobility, make it a key indicator of the issues facing Singapore as it attempts to position itself as a global city. In particular, the move from a 'modern' to 'post-modern' architectural style signals the government's attempt at the same time to mark Singapore's arrival as a global city, to anticipate and manage social and economic divides and to construct a possible space for increasing public input and expression.

# **Introduction: The HDB in the 'Modernisation' Phase of National Development**

Public housing in independent Singapore has a history of some 40 years, during which it has moved rapidly away from a developmental institution whose primary concern was the provision of mass basic housing to low- and middle-income households, modernising the built environment from the crowded and unsanitary squatter housing which characterised the immigrant housing in the city centre and the *kampungs* or rural villages. The Housing Development Board (HDB) was established in 1960 and tasked with "redeveloping and

revitalising" Singapore's housing landscape, to transform the "squalid dwellings concentrated mainly in the City" and develop the island-state into "a well planned modern metropolis".2 In terms of its unadorned modarchitecture (most first-generation ernist HDB blocks were unrelieved, coloured rectangles), its emphasis on the provision of "basic amenities" (HDB, 1970, p. 3) and its clientèle, the HDB in the first decade or so of its life and activities had a function in keeping with Singapore's then-

Robbie B. H. Goh is in the Department of English Language and Literature, National University of Singapore, Block AS5, 7 Arts Link, Kent Ridge, Singapore 117570. Fax: 65 773 2981. E-mail: ellgohbh@nus.edu.sg.

0042-0980 Print/1360-063X On-line/01/091589-16 © 2001 The Editors of Urban Studies DOI: 10.1080/00420980120076821

status as a newly independent and developing nation.

Together with this task of modernising Singapore's housing environment and the national landscape, the HDB also had an explicit role in forging communal harmony amongst the different races which composed Singapore's population. The first decade of the HDB's activities was marked most significantly by the relocation of residents out of pre-modern housing, which was usually organised along the racial lines of immigrant communities, into radically different housing environments designed to create multiracial, integrated communities.3 Here the modernist minimalism of early HDB structures also played a part: the blank anonymity of standardised housing not only accorded with essentially Fordian methods of mass production appropriate to Singapore's state of economic development in the 1960s and 1970s, it also removed from the heart of communal housing the signs of racial and cultural differentiation such as vernacular design elements and ritual spaces. For example, the ground floor of most blocks of flats was left deliberately unfilled and unfinished, creating a 'void deck' (as the HDB termed it) which could serve a variety of religious and cultural roles such as "weddings, birthdays and other celebrations", "religious rites" and "funeral rites" (HDB, n.d., p. 21). The built environment was largely successful at this basic functional level and, as Lai (1997, p. 173) shows in her study of the racially representative Marine Parade estate, "unhappiness" was occasionally incurred by this multicultural utilisation of the public space, it was "seldom openly and directly expressed". Recently, the National Development Minister, Mah Bow Tan, who has charge of the HDB, observed that "community bonding aspect" of the HDB's mission would become "increasingly important" (The Straits Times, 1999a). Even in its nascent phases, however, Singapore public housing functions under a political economy and policy which differentiate it from many aspects of public housing typical in both developed and developing countries in the past four or five decades. Public housing in urban theory is often seen as the site of a lack (for example, of the freedom, individuality and resources of private housing) or a failure (i.e. as a clumsy intervention necessitated by the imperfect development of capitalist infrastructure). Thus Short (1996, p. 192) declares that

Public housing is a result of market failure and population pressure. Markets respond to economic power, not social need. Private housing markets do not respond well to the needs of the poorest, but yet the poorest have political power that can be transformed into public policies.

Castells (1978, pp. 22-23) sees public housing as "dependent" on the "economic and ideological direction of the dominant classes", yet lacking in the capital resources to participate as an equal and respected entity in such free-market systems. Similarly, Harvey (1989) and Savage and Warde (1993) see the provision of public housing amenities like transport networks, sewerage, libraries and parks as following belatedly from swings in economic cycles, and thus always in an awkward relationship with the primary infrastructural thrusts of urban economic development.

Such models and theories of public housing prove problematic in the case of Singapore. While public housing in the US accounts for less than 8 per cent of total housing, and in the UK for less than 35 per cent (Short, 1996, p. 193), in Singapore at present about 86 per cent of the population live in public housing, of whom 90 per cent home-owners.<sup>4</sup> The socioeconomic profile of HDB households tends to converge with the national profile, rather than forming a less-privileged sub-group. According to the 1993 Sample Household Survey conducted by the HDB, the mean monthly household income was \$2653, compared to the national mean monthly household income of \$3030 (HDB, 1995, p. 50; Department of Statistics, 1996, p. 70). Other indicators also suggest that most HDB households are characterised by ownership of certain 'luxury' goods and by the enjoyment of 'luxury' activities which denote the middle class: while more than 98 per cent of households owned more basic appliances like refrigerators and televisions, 79.7 per cent also owned video-cassette recorders, 53.2 per cent owned hi-fi sets and 61.9 per cent owned vacuum cleaners (HDB, 1995, p. 58). Forty-six per cent of households had members who had gone abroad on holiday in the previous year (HDB, 1995, p. 65).

For the top three categories of HDB '5-room', flats—the 'Executive'. 'HUDC' flats (the latter referring to larger flats built by the Housing and Urban Development Corporation, intended to incorporate some of the amenities and features of private apartments) which in 1993 collectively formed 18.3 per cent of all HDB households-the indicators of middle-class life accordingly increase statistically. Households in this range are characterised by many of the social indicators common to households in more expensive and exclusive private housing: for example, 34.9 per cent of households in HUDC flats employ a full-time domestic servant (15.3 per cent for 5-room flats and 25.3 per cent for executive flats), while 78.4 per cent own cars, compared to 51.6 per cent for 5-room flats and 69.3 per cent for executive flats (HDB, 1995, pp. 60, 62).

In terms of urban planning, infrastructural development and the provision of amenities, HDB estates have not followed the pattern in many developing countries of poor planning and management, high price-income ratios and exclusion (to varying degrees) from the flow and distribution of capital arising from modernisation and urbanisation (Jones and Datta, 1999, pp. 3-8). The HDB implements the development of new public housing 'towns', and the continual upgrading of facilities in older towns, with considerable forward planning in a series of 'Five Year Building Programmes' which take into account projected population growth, land sales and housing demand. Thus the first two Five Year programmes (1960–65, and 1966–70), for example, planned to build a total of 110 000 flats in outlying areas to relieve the

overcrowding in the Central Area (around the Singapore River). By 1970, 120 000 flats were completed, exceeding the target by 10 000 flats (Yeh, 1975, pp. 8-9). Blocks of flats were constructed in so-called satellite towns—clustered blocks capable of housing several hundred thousand people, with their own system of communications and amenities—according to a 'total environment' plan. Thus Queenstown, the first satellite town built by the HDB in its 1960-65 programme, provided from the beginning of the planning process for a town centre with cinemas, restaurants, landscaped gardens, sports complex and other amenities (HDB, 1970, pp. 18-19). Subsequent estates built in later Five Year Building Programmes have abided by more advanced versions of the total environment plan, adding more facilities like playgrounds, void decks and retail to smaller neighbourhoods 'precincts' within the estate (Ooi and Tan, 1992, pp. 70-71). Thus HDB 'master plans' make specific infrastructural provisions even before actual construction begins and these plans in turn conform to a 'Singapore Concept Plan' on national population projections, housing requirements, economic growth rate and related factors (Owyang, n.d., Review ... 1993/94).

The political economy of public housing in Singapore is accordingly structured to ensure affordability of housing, but is also driven by a carefully managed version of an open market which to a certain extent links flat prices to the larger economy and to private property prices. This is quite different from the 'social surplus' model in Jamaica, geared in theory towards low-income groups, or from the 'low-cost capital' provision system in Mexico (Klak and Smith, 1999, pp. 61-62; Siembieda and Moreno, 1999, pp. 76-77), countries which have had a tradition of public housing provision almost as long as or longer than Singapore's system. Until 1991, HDB flats were designed and built in-house, with little significant privatesector involvement except at the sub-contractor level. Project financing has been provided by government loans, while home-buyers

take mortgages from HDB at subsidised interest rates (Yeh, 1975, p. 4; Addae-Dapaah, 1999, p. 89). There are restrictions (regarding the nationality, marital status and household income level of applicants) governing the purchasing of HDB flats, to ensure both that the government subsidies go to benefit the largest number of citizens and are not exploited by individuals for quick profit, and to promote the familial structure favoured by the government. Not insignificantly, this policy has also created for the government a stable support-platform of householders with a vested stake in the existing infrastructural system and the institutions which sustain it (Yeh and Pang, 1973; Chua, 1997). Hassan (1977, p. 13) observes that HDB flats

are constructed according to the Anglo-American housing model, which is oriented towards the need of the conjugal-family household.

This is in keeping with the Singapore government's overt attempts to promote 'core Asian values' which are supposed to underpin Singapore's multiracial (but predominantly Asian) society, including values such as "strong family ties and support", "respect for one's elders" and "communitarian values" (Stravens, 1996, p. 277).

In terms of housing policy, this has meant a lower priority assigned to unmarried applicants and incentives for 'extended families' (i.e. households of three generations) and for nuclear families applying for flats in the same HDB estate in which applicants' parents already live. Such a policy has been less solicitous of applicants with a different household profile, particularly single applicants, and has to a certain extent led to the 'marginalisation' of the elderly (as applicants to own flats) within the HDB's application and financing systems (Addae-Dapaah, 1999, pp. 91–92). This family-oriented policy has, not surprisingly, been accompanied by a change in emphasis from low-income housing to catering for largely middle-income, extended-family households: the HDB has progressively decreased the number of 1- and 2-room HDB flats constructed (as a percentage of all existing flats) and has also progressively raised the maximum household income level permitted for HDB applicants (Hassan, 1977, p. 8). Currently, the household income ceiling is \$\$8000.

# **Changing Policy: Upgrading and Upward Shifts**

The HDB household income ceiling marks the point below which applicants may qualify for a subsidised-rate mortgage. The curhousehold income high effectively means that only individuals at the very top few percentiles of the national income scale are barred from qualifying for the subsidised mortgage. The last General Household Survey conducted in 1995 indicated that only 28 per cent of households had a gross monthly income of \$5000 and over (Department of Statistics, 1997, p. 23). In 1999 only 24.34 per cent of the workforce earned a gross monthly income of more than \$3000 (Ministry of Manpower, 2000, p. 75). Furthermore, since there is nothing to prevent one wage-earner in the household from resigning from work temporarily, to bring the household income down below the permissible ceiling (in practice, it is usually the wife who does so, for various social and economic reasons), the income ceiling is not an effective bar and reflects a policy of general inclusiveness rather than of welfare provision for a specifically lower-income group.<sup>6</sup> This theoretical inclusiveness is politically expedient, not only because of the large percentage of the population living in public housing, but also because of the correspondingly large amount of public revenue spent on it: in the 2000/01 national budget, 8.08 per cent will go to public housing, the thirdlargest item after defence (25.6 per cent) and education (20.52 per cent), although the latter items have a greater argument for benefiting all Singaporeans than does public housing (The Straits Times, 2000c). Public housing residents also tend to receive other special rebates (in their service, utilities and conservancy charges) not given to private

property owners—for example, in the 1999 tax package as the country came to terms with the economic crisis of 1998. Given this strong base in public revenue for its operations and development, the HDB has had to ensure that only the very few high-income individuals are actually prohibited from purchasing public housing.

Nevertheless, the socioeconomic pressure of the high income ceiling, together with the HDB (and the Singapore government's) family-nucleus orientation, has led to a subtle yet significant shift in the HDB's orientation and clientèle profile over the years. For example, there has been a widening gap between the income levels of households in the leastexpensive (1-room) flats and those in the most-expensive category of flats built by the HDB. Correspondingly, the gap between lower-income households living in the 1room flats, compared to the mean household income of all HDB households, has also increased. In 1972, the average income for households in 1-room flats was \$168.66; this was 68.16 per cent of the \$247.43 average of all households, or 33.14 per cent of the average household income in the top category of flats (Hassan, 1977, p. 24). In 1993 the figure for 1-room flats was \$1102, which was 41.53 per cent of the \$2653 average of all households, or 15.39 per cent of the average income among households in the top category of flats (HDB, 1995, p. 54).

Although the direct sale of flats by the HDB at subsidised rates, together with the regulations restricting the purchaser's disposition of the flat,<sup>7</sup> together constitute a significant influence on the property market, such regulations are to a certain extent offset by the free-market conditions which govern Singapore property in general. Despite what appears to be a qualitative difference in the economics and policy of public and private housing, in fact, according to Amy Khor<sup>8</sup>

there is a strong inter-relationship [between them]. Changes in the public housing market often filter through and affect the private housing market.

In the last cycle of property prices from their

gradual rise beginning in 1986 to their peak in 1996 and subsequent downward trend until 1998, generally "the price movement of HDB flats mirrored those of the private property market" (Singapore Property Guide, 2000a, p. 16). This is in large part because the HDB follows a policy of selective adjustment of certain open market prices, rather than a strict supply-side control. Thus subsidised-rate mortgages are pegged to Central Provident Fund (CPF) interest rates, which in turn float in relation to commercial bank mortgage rates.9 As direct-from-HDB purchases of flats are subject to fairly long waiting-lists and are usually confined to less centrally located new housing estates, there is a thriving 'resale' market in which purchasers buy flats from individual owners rather than from the HDB. Private property prices are also strongly influenced by 'upgraders' who sell their flats on the open market, profiting on the subsidy received from the HDB to buy (especially) entry-level private homes such as the less-centrally located condominiums and terrace (row) houses.

HDB households 'upgrading' to larger HDB flats, or even to private properties, are thus encouraged not only by a tolerant and inclusive subsidy system, but in fact by the explicit discourse, goals and ideology of both the Singapore government and the HDB. In the first place, upgrading policies are written explicitly into the financing structure of Singapore public housing. Although in its subsidies at the level of pricing and financing, and in its provision of very basic and homogeneous housing structures (at least in the first 2 or 3 decades of its operation), the HDB operates like a social welfare organisation, in recent years it has reconfigured some of its policies to foster upward mobility particularly among its higher-income clientèle. 10 Thus the HDB's Selective En-bloc Redevelopment Scheme (SERS), begun in 1995, identifies "old estates unsuitable for upgrading but with high redevelopment potential", which are acquired by the HDB and demolished (The Straits Times, 2000a). Owners of the older and smaller flats are compensated

for their old flats at current market rates, and are also guaranteed a larger and newer flat, for which they pay a subsidised price set at 80 per cent of the market rate. As the newer blocks of flats are usually higher and contain more flats, the HDB also has surplus units to sell after accounting for households in the old block. The SERS is essentially a systematic updating of precincts which is also an economic revision upwards for the individual householders in them; as property prices rise in keeping with national economic growth and with the increased demand for such sites due to urban development, the government's gains in such transactions are also passed in part to individual households.

In its attempts to balance upgrading policies with subsidies and welfare goals, a number of surprising measures have emerged, particularly in the past decade. Thus applicants may not purchase an HDB flat if they own private property, or have owned such property in the 30-month period prior to applying to the HDB. The logic is that of welfare provision and prevents private property-owners (who, given the scarcity and high prices of such properties in Singapore, are by definition high-income or high-networth individuals) from competing with more needy applicants for subsidised flats. However, HDB owners are allowed to purchase private properties and rent these out, while still retaining ownership of their HDB flats. This obviously facilitates the acquisition of property and the gradual buildingup of a high net worth by HDB owners, although the fact that there are no strict rules obliging them to then give up their HDB flats suggests that welfare philosophies are superceded by a paternal encouragement of asset acquisition.

Similarly, with effect from 1 October 1999, the HDB amended its policy on subsidised mortgages to prohibit most applicants from getting a second (i.e. subsequent, not concurrent) such mortgage. The rationale was "to discourage people from cashing in on the sale of their flats" and thus benefiting from the interest rate subsidy (*The Sunday Times*, 1999). By setting the interest rates for

a second mortgage at the unsubsidised prevailing market rate, the HDB sought to discourage particularly those home-owners who wanted to buy 'a smaller place' or a flat 'the same size' as their first one. The exception is that 'only those who sell to upgrade to a bigger flat will be allowed to get a second subsidised loan'. Interviewed by The Sunday Times on the matter, National Development Minister Mah Bow Tan was quoted as saying that the measure aimed at reducing the "churning activity" in the resale of HDB flats, particularly in the light of the expected recovery of the property market after the Asian financial crisis. Yet even within this anti-speculative, anti-profiteering measure. the government's respect and encouragement for upgrading householders are maintained. Householders buying larger flats are not perceived as 'cashing in' on the two subsidised mortgages they will receive, whereas even householders who may have to buy a smaller apartment due to economic hardship are effectively classified with the speculators.<sup>11</sup>

In this respect, HDB's discourse on upgrading reflects a larger national ideology/ agenda which has shifted from basic infrastructural development in the earlier decades of Singapore's independence, to qualitative changes calculated to create a world-class, competitive city. The discourse of 'upgrading' has featured prominently in HDB statements, particularly since the 1990s. Together with the Selective En-bloc Redevelopment scheme, the HDB launched a Main Upgrading Programme (MUP) in 1992 (aimed at renovating individual flats, whole apartment blocks and communal facilities in estates more than 17 years old at the time) and the Interim Upgrading Programme (IUP) in 1993 (which applies to slightly newer estates and deals only with apartment blocks and precinct facilities) (HDB Infoweb, n.d., Brief background on HDB). From the goal of providing "the basic amenities for comfortable living" espoused in 1970 by E. W. Barker (HDB, 1970, p. 3), the HDB's mission in the 1990s has been increasingly forward-looking and ambitious: to meet "the aspirations of an affluent society" by providing "better quality homes" and "a quality living environment" (*HDB Infoweb*, Brief background ...; Owyang, n.d., Review ...1995/96, Review ... 1996/97).

HDB's interventions into the built environment accordingly reflect this upgrading ethos. In May 1995, the Land Titles (Strata) (Amendment) Bill was introduced in Parliament to allow the conversion of leases in Housing and Urban Development Council (HUDC) estates to strata titles, hence permitting the transformation of such estates to condominium-like estates. HUDC owners in the pilot estates of Pine Grove and Gillman Heights had to pay the HDB for conversion costs, including the costs of buying car park lots, legal and survey fees. They also had to form management corporations to take over the management duties formerly performed by the HDB's town councils. After the conversion to strata title, the former HUDC estates could then assume the character of a condominium, creating sinking funds for the maintenance of the estate, building facilities like swimming pools and so on. HUDC flats were chosen for this conversion, since "in terms of density and style, HUDC estates are similar to condominiums" (HDB Infoweb, n.d., The land titles ... bill) and HUDC householders tend to be at the top of the range of HDB households in terms of income.

The 'executive condominium' scheme. launched in August 1995, saw the HDB venture into apartments with all the appearance and facilities of private condominiums, but with 99-year leaseholds similar to those of HDB flats and governed by the HDB's policy of subsidy and conditions on application and resale. The executive condominiums effectively created yet another rung in the HDB's evolving scheme of upwardly mobile housing, to cater to increasingly well-to-do households while channelling them away from the private property market into subsidised nearalternatives. The mixed fortunes of the executive condominium projects that have been launched to date reflect their hybrid nature: they "must take their cue from both the HDB resale market and the private sector", since on the one hand (like HDB flats) they come with housing grants for first-time buyers as well as with restrictions on their resale and on the household income of applicants, while on the other hand they have condominium-style facilities and require higher cash deposits than do HDB flats (Singapore Property Guide, 2000, pp. 15-16). The successful sale of executive condominiums accordingly requires a clear definition (via financial policy and market pricing) of the 'sandwiched class' who are at the very top of the HDB household income scale and yet who have smaller budgets than the households shopping at the bottom of the private property scale. The precariousness of this class is shown by the fact that a narrowing of the gap between the two-for example, in the plunge in private property prices in 1998—can quite severely affect the take-up rate for executive condominiums (Singapore Property Guide, 2000b, p. 16).

Quite apart from the clear policy and ideology favouring upgrading, the actual statistics on upgrading HDB households are rather more mixed and suggest that a significant proportion of such households are willing to go counter to the plans for urban development and upgrading. In the period 1991-95, the number of HDB households moving to a larger flat was 85 700 (being 15 per cent of the HDB stock in 1990), while the number of 'downgrading' HDB households was 28 053 or only 5 per cent (Department of Statistics, 1997, p. 29). While the figure of 85 700 upgrading households, or 15 per cent, is significant as a total figure, when it is averaged for the 5year period over which it took place, it amounts to 3 per cent of households upgrading each year, and this in a "vibrant property market" (Department of Statistics, 1997, p. 30). Furthermore, this raw figure of 85 700 households is weighted heavily at the lower end, where 14 584 households upgraded from 1- and 2-room flats and another 41 368 households upgraded from the 3-room flats they occupied in 1990. Thus lower-end upgrading accounted for the bulk (65.29

per cent) of all upgraders. Upgrading at the top end of the scale in the period 1991-95 was hardly significant: while some 29 748 households occupying 4- and 5-room and executive flats in 1990 subsequently upgraded, this is offset by 22 045 households from the same categories of flats downgrading in the same period. Indeed, downgrading would appear to be a phenomenon largely confined to the top-range flats (of households in 3-room and smaller flats. only 6108 downgraded in toto), with households wishing to "cash out on the value of their property which had experienced high appreciation" (Department of Statistics, 1997, p. 30).

Upgrading from top-scale HDB flats to private properties in the same period was also insignificant; in fact, the stock of such private properties actually declined about 1 per cent from 1991 to 1995, "as a result of the accelerated building programme of the HDB during this five-year period" (Department of Statistics, 1997, p. 28). Executive condominiums were not a factor in this period, having only been launched in late 1995. The figures for this period suggest that, despite development plans and policies which sought to foster upgrading of public housing at all levels, there was instead an effect of convergence to the middle, with strong upgrading forces in the most basic HDB flats, but countered by ambivalent movements at the higher range. This conforms to Baum's (1999) analysis of Singapore's labour trends, which indicates an absence of the polarisation of wages and occupations expected in certain global city structures and, instead, a swelling of the middle 'professional' ranks. This phenomenon of convergence about the middle has a number of likely causes: in the first place, while lower-range HDB housing (the 1- and 2-room flats) is undeniably outmoded and lacking in general comfort, the bulk of public housing in Singapore is comfortable, safe and well-built. There is thus less incentive to move out of public housing, than there would be in countries where the public housing system comes with significant stigmatisation

or problems of crime and security. As public housing prices tend to mirror those of private housing, there is also little to gain from upgrading (either to better public housing, or to private housing) in terms of higher rates of returns on capital investment; indeed, the lower capital sums and downpayments involved in public housing purchases and the perception that the government is more likely or able to intervene if public housing prices slide, actually lead conservative home-owners to stay in public housing, even where income levels may make it possible to own private housing. Other factors which may combine to dilute the effect of upgrading policies include the exceptionally high cost of car ownership in Singapore, and the rigorous educational system with its relatively limited places in tertiary institutions; the latter problem leads many concerned parents to put money aside for their children to study at overseas universities should the need arise.

It is no doubt to counter this upper-range ambivalence that the HDB's recent policy revoking the second subsidised mortgage to downgrading households was implemented. Yet it is also relevant to consider what the limits and parameters of upgrading the built environment would be in the next phase of Singapore's development, even assuming that this profit motivation for downgrading were to be arrested. With its limited land, rising labour and business costs and traditionalism in promoting 'the family' and 'Asian values', Singapore's upgrading of the built environment would ultimately have to negotiate between the two poles of functional affordability and market pricing, of community-building and the individualism of global capitalism. While on the one hand an older and more conservative generation of public home-owners on relatively fixed incomes will continue to favour the security of public housing, a new generation of workers brought up on the economic and employment models of multinational corporations and dot.com companies is likely to be less riskaverse and more in favour of upgrading their homes as a mark of social ascension.

## 'Heartlanders' and 'Cosmopolitans': Postmodern Style and the Global City

HDB blocks up to about the 1980s were marked by a structural homogeneity and regularity of form which belonged to a 'modernist' style essentially indistinguishable from public housing in many other countries (as Chua, 1997, pp. 73-74 shows, comparing a description of an East German block of flats with an example from Singapore). Furthermore, each block of flats was internally standardised as well, having apartments of exactly the same size and floor plan, utilising Fordian models of modular construction which were entirely suited to Singapore's stage of modernisation and national development at that time. In the HDB's upgrading projects of the 1990s, there has been a marked attempt to depart from this anonymous standardisation. In 1991, the HDB's 'Design and Build' scheme began allowing private architectural and construction firms to bid for contracts to build apartment blocks, the goal being to achieve "a higher degree of architectural sophistication" and choice in the variety of housing" (HDB Infoweb, n.d., Brief background). The results of such selective participation by private companies are only beginning to show, and in relatively limited areas such as the newer housing estates of Pasir Ris and Sengkang. In the older housing estates which form the bulk of public housing in Singapore, the Main and Interim Upgrading Projects attempt a stylistic make-over in which certain parts of precincts are given façades and other renovations gesturing towards a diverse range of architectural traditions: English Tudor, art deco, mission, classical republicanism and Chinese kitsch are just some of the stylistic elements at play. Figures 1-4 indicate the heterogeneity of styles in two HDB estates, the 'secondgeneration' estate of Ang Mo Kio (built in a slightly older modernist style in the 1980s, but undergoing upgrading in the mid to late 1990s) and the newer estate of Hougang, built in the 1990s. The HDB is currently also exploring the possibility of flexible and mixed apartment buildings, called 'white blocks', which would have studio apartments suitable for the elderly, together with 4- and 5-room flats for families. Also being considered are flats with walls or partitions which would allow for easy reconfiguration of the floor plan, creating flexible spaces which would allow occupants to adjust to changing household circumstances (*The Straits Times*, 1999a).

The HDB's newest housing estate, Punggol 21 (HDB's 'town for the 21st century'), which is currently under construction, brings many of these upgrading and differentiating trends together (Owyang, n.d., Review, 1997/98). In addition to the participation of private property developers, the HDB has solicited and incorporated 'public feedback' on the needs and wishes of prospective residents in the estate. The Punggol 21 estate



Figure 1. Colonial and mission architectural elements in a clock tower/gazebo near the Ang Mo Kio Avenue Four market.



**Figure 2.** Art-deco ornamentation on the façade of a block of flats in Hougang.



**Figure 3.** Walkway in Hougang, with faux Tudor wood gables and beams, and coach-style lamp.



**Figure 4.** Signs of 'antiquity' in a brand-new HDB housing estate: wrought-iron grills, faux verdigris finish, Chinese *kitsch* (the 'peony'- design inset at the top of the verdigris panel, which is in fact four 'hearts' joined together, echoing the heart motif in the wrought iron).

will see the intensification of HDB's attempt to harmonise public and private housing elements, with 40 per cent of the development given to private housing and 60 per cent to HDB flats. More 'premium flats', with higher-quality finishes (like carved doors and more expensive tiles and sink tops) and which cost about 10–15 per cent more than ordinary flats, are also being offered to applicants (*The Straits Times*, 2000a).

As Ley (1993, p. 130) argues, "landscape is ... inherently ideological" and its form, organisation and design "can be made to reinforce identities". This is particularly true in Singapore public housing, given its sheer socioeconomic impact on the landscape and the population. In the 1990s, as Singapore

prepared itself to compete as a "great cosmopolitan city" and a "vibrant economy", 12 the HDB's influence on the urban landscape changed accordingly. The austere, modernist minimalism of the 1960s and 1970s gave way to the "riot of ... ornamentation" and "variety of shapes and colours" which for Short (1996, pp. 31–32) are defining features of the post-modern city. For Short, such adornments are driven by "an attempt at differentiation between cities at a time of growing global competition". This view of post-modernism's role in urban differentiation has been challenged by Zukin (1988, pp. 436-438), who argues that "despite local variations", global capital ultimately exerts forces which prompt "market-driven patterns of standardisation" within that variation—a point which Jameson (1995, pp. 35-36) underscores with his argument that 'multinational' capital (as the 'purest' and most influential form of capitalism) seeks to transform and penetrate all aspects of society.

The element of urban differentiation cannot be ruled out, particularly as more affluent Singaporeans travel on holiday or study in foreign universities and become exposed to lifestyles in other countries, and as Singapore's government increasingly emphasises the need to attract both talented foreigners and returning Singaporean scholars to live and work in Singapore. In his 1999 National Day Rally speech entitled "First-world Economy, World-class Home", Prime Minister Goh Chok Tong explicitly links Singapore's economic competitiveness with changes in the housing landscape. As Singapore in the 1990s and the new millennium is no longer competing within a regional arena and now seeks to be "one of the best economies in the world", it must accordingly compete with cities like "Hong Kong, Shanghai, Taipei" not only for foreign Sydney, direct investment, but also attract "talent ... entrepreneurs, bankers, artists, writers, professionals" to make it their home (Goh, 1999). HDB's concept plans for the public housing estates of the 21st century, with their greater degree of client feedback, greater diversity of styles and emphasis on lifestyle and amenities, are clearly part of a larger national project of creating an attractive living environment by global standards.

Yet the problems of post-modern style and of urban differentiation are also undeniable, particularly in the case of Singapore. In terms of physical geography, Singapore (with its small size and relatively uniform climate and geographical features throughout) has much less to draw upon in its creation of an urban identity—unlike cities whose attractive environs become part of the character and image of the city itself, like Seattle, Vancouver, San Francisco, Denver, Zurich, Sydney and others. There are also undeniable problems of homogenisation, in part through the influence of global consumer culture and multinational brand names, as Zukin (1988, pp. 433, 436) observes. McDonald's restaurants are ubiquitously present, not only in the heart of Singapore's commercial districts like Orchard Road and Bugis Junction, but also in most public housing estates, where they are often joined by Burger King, Toys R Us, Starbucks, Kentucky Fried Chicken, Pizza Hut, Benetton, Nike and the like.

In addition to this tendency for the public housing landscape to conform to the images and structures of such multinational presences, there is also the problem of eroding vernacular style and cultural identity in the face of "the mass production of housing units" (typical both in the modernising phase of newly independent nations, as well as in developed cities under pressure from a "diverse migrant population"), which have created a crisis of the "authorship of place" (Ley, 1993, p. 129). In the case of Singapore's public housing landscape, the 'crisis of authorship' can be seen in architectural style and cultural forms, as the diversity of imported styles in the recent upgrading projects combine in unlikely ways without an underlying base in national or communal history and traditional style. Indeed, it might be argued that this simulation of a diverse post-modern style in Singapore public housing is guided by two contrary projects. Prime Minister Goh in his 1999 National Day Rally

speech also made a distinction between Singaporean "Cosmopolitans" (global in outeducation look, and skills, and "indispensable in generating wealth for Singapore") and "Heartlanders" (local in outlook and operation, maintaining "our core values and our social stability"). While clearly private property is free to reflect the values, aspirations and styles of the cosmopolitan class (whether Singaporeans or "foreign talents"), public housing is in a more ambiguous position. Associated on the one hand with "Heartlanders" and catering to the masses, it is obliged to provide a landscape which will sustain narrower heartland values (the neighbourhood, the community, the family) and more modest heartland ambitions (upgrading from smaller to mid-size or large HDB flats). On the other hand, the socioeconomic heterogeneity of its clientèle and its own inherent logic of constant upgrading require that it sustains and rehearses (through its landscape as much as its policy) aspects of a cosmopolitan and upwardly aspiring value system and style, even if only a small percentage of its households will actually realise an upgrade in property and lifestyle.

Yet another crisis in authorship of Singapore's public housing exists at the level of the planning process. While the HDB in its earlier phase of rapid modernisation succeeded via a process of authoritarian and far-sighted decision-making and implementation, it now functions in a socio-political environment where it has been expedient to incorporate a greater degree of public consultation and discussion in its planning. Arguably, many of the HDB's upgraded post-modern landscapes accord with the "familiar and accessible public idiom", the return to the spirit of the "res publica", which Linda Hutcheon (1988, p. 32) sees in post-modern public spaces such as New Orleans' Piazza d'Italia. Certainly amphitheatres, miniature squares and plazas feature significantly in many of the HDB's upgrading projects (Figure 5)—yet, stylistically, these do not evoke a relevant vernacular or cultural tradition the way that the classicism



Figure 5. Amphitheatre at Ang Mo Kio Avenue Four market, with echoes of the classical amphitheatre, the modern sports arena, fort-like crenellations and slits, and the exoskeletal steel framework of contemporary exhibition halls like Chicago's McCormick Place and Singapore's own Changi Exhibition Hall. Seen from certain angles, the exoskeleton's columns and bars also resemble the masts of a schooner or cutter.

of Hutcheon's Piazza gestures to the ancestral roots of New Orleans' residents of Italian descent. Furthermore, it could be argued that the mere stylistic evocation of classical symbols of civic republicanism is not sufficient to foster a culture of civic participation. Indeed, while in the HDB's main upgrading project households were asked to vote on whether their precincts would be upgraded, the particular design and function of public spaces such as amphitheatres, walkways and squares were not generally open to public input.

Thus from one point of view, the HDB's recent invocation of post-modern stylistic elements might be seen as the Singapore government's attempt both to forestall a more vociferous public involvement in issues of space and housing policy and, at the same time, to prepare for a move to a more controlled and limited model of public debate. In the present style of public housing and spaces, top-down decision-making is still dominant, so that a stylistic variety may lend colour and interest to the built environment, but may not necessarily reflect the racial, cultural and socioeconomic diversity of the people, nor allow for the input of particular

interest-groups such as installation artists, architects in private practice, performers and the like. One way in which Singapore public housing has forestalled a likely area of contention, is in the matter of street names: up to and including the Hougang estate, with its conspicuously post-modern stylistic elements, almost all Singapore housing estates used a numerical system in which all roads were either 'Avenues' or 'Streets', and were distinguished from each other only by numbers. This is clearly an expedient way both of coping with the great number of new street names required in Singapore's major infrastructural push of the past few decades, but also of avoiding potential contentions over Singapore's particular historical moments and their interpretations by different individuals, races, groups or classes.

The built environment of Singapore public housing in this sense also reflects a point of tension in Singapore's larger political culture at the present time. Recognising that globalisation and the internet era are not conducive to passive and uninformed citizenry, but require at least an élite group of daring and innovative risk-takers to spearhead Singapore's continuing economic success, the government is taking measures to replace an older authoritarian and paternal political model with one in which there are carefully guided avenues for public debate and the expression of individual opinions. In a landmark move, on 1 September 2000 it established a 'Speakers' Corner' in a park in the historical Chinatown area, where any Singapore citizen may register to speak on any topic which does not cause racial or religious offence (The Straits Times, 2000e). Similarly, the HDB is also changing administrative policies and building plans: housing estates presently under construction, such as the 'Punggol 21' project, are reportedly combining post-modern style with amenities which are meant to resemble those of private recreational clubs and are also doing away with the facelessness of the numerical street system. The HDB has also attempted to present an image of being more responsive to and accepting of public feedback on design issues (*The Straits Times*, 2000d). In addition, it has set up an e-mail avenue (qsm@hdb.gov.sg) to allow the public to "feedback on service/products", although the link is hardly a prominent one, embedded as it is as the last item in a sub-menu on "Where to Reach Us".

All things considered, it is probably fair to say that the HDB at the present time is hardly the organisation most responsive to public feedback and input on its designs. In one sense, this is inevitable given its scale of operations and the remarkable speed with which it is able to turn out high-quality public housing; public discussion and input must be measured against a certain loss of executive speed and efficiency. It is thus hardly surprising that the more contentious public debates over space have involved not HDB projects, but individual buildings and spaces largely in the downtown civic area. For example, recently the government's plans to tear down the National Library building on Stamford Road and to build on nearby Bras Besah park have given rise to a public debate on the role and limits of public input in landscape planning. Prominent architect Tay Kheng Soon's opposition to these plans led to a debate (conducted chiefly in letters to The Straits Times' Forum page) between Nominated Members of Parliament Simon Tay and Zulkifli Baharudin on the one hand. and representatives of the government like Lim Huay Chih of the Prime Minister's Office and Minister of State David Lim on the other. At stake were issues of whether public consultation in urban policy was significant or merely ceremonial, whether public debate would "paralyse government" and the extent and manner in which public opinion could be factored into final plans.<sup>13</sup> In another sense, this measured response to public input is also symptomatic of, and reinforces, the political climate at the present time. A top-driven project of upgrading and stylistically diversifying the public housing landscape, while it may to a certain extent defeat the public involvement towards which it seems to gesture, is the Singapore government's present attempt to reconcile the somewhat contrary goals of creating an active and informed citizenry, while maintaining a fairly high degree of executive control over policies and public debate.

### Conclusion

The peculiar nature of Singapore public housing makes it an interesting test-case of the processes of urban planning and related social transformations in global cities. While the strong culture of governance in Singapore public housing led to great efficiency in infrastructural development in the 1960s and 1970s, the attempt to position itself as a competitive global city from the 1990s has given rise to upgrading policies and landscape transformations which have indicated a much less clear-cut socioeconomic and cultural goal for the nation. This phenomenon of a model of public housing which, on the one hand, is stylistically global and plural, structures policies of continual upgrading in its planning and gestures towards the symbolism of luxury drawn from private housing; while, on the other hand, is meant to house a professedly 'heartland' and local population, which is constructed as the locus of a conservative economy and value system on which the nation also depends, reflects Singapore's dualistic goals and ideology in its next, global stage of development. While a divide between more and less 'cosmopolitan' and upwardly mobile groups is hardly unique to Singapore, in few other instances is a massive machinery of public housing put to use to manage the disparities which threaten to grow wide and breed greater urban problems under a free-market housing system in a global economy. Singapore's public housing landscape may thus be seen as a kind of 'soft' intervention, not in the more overt form of socialist economics or a policing (in various ways) of inhabitants, but rather as an infrastructural and symbolic insertion of the ideas of continual economic progress, guided freedom and national unity across racial and social groupings, which the government sees as crucial to the country's survival in the next few decades.

What remains to be seen in the next phase of Singapore's development as a global city, is whether some of these contrary forces created by upgrading policies will be resolved as the model of governance urban and social governance is refined, and what impact this will have on Singapore's economic and cultural landscape.

#### **Notes**

- 1. For a more detailed account of the history of immigrant housing in the Singapore river district, in the Singapore Improvement Trust (SIT) flats which preceded the HDB and in the rural *kampungs* before the mass resettlement to HDB estates in the latter 1960s, see Yeoh (1996, pp. 136–165); Yeoh and Kong (1995) and Chua (1997).
- These are the words of then-Minister for Law and National Development E. W. Barker in 1970, looking back on the first 10 years of the HDB's activities, and clearly reflecting the developmental and modernising thrust which characterised the early years of the HDB (1970, p. 3).
- For an historical account of the geography of immigrant communities and their 'adaptive strategies' in response to living conditions in late colonial times, see Yeoh (1996, especially ch. 4), and Chua (1997).
- 4. Figures obtained from *HDB Infoweb*, n.d., Brief background on HDB. In addition, 1.7 per cent of all HDB households also owned private residential properties either in Singapore or abroad, and 2.3 per cent also owned non-residential properties such as retail shops and office space (HDB, 1995, p. 61).
- 5. With effect from 1 June 1998, singles are only permitted to buy an HDB flat on the resale market and not directly from the HDB at subsidised rates, although they are eligible for CPF cash grants to assist them in such purchases. To qualify for these grants (currently at \$15 000), single applicants had to be 35 years of age and above, in addition to fulfilling the HDB's other criteria on income level and ownership of private property (HDB Infoweb, n.d., CPF housing grant for singles).
- This income ceiling refers to gross monthly income; applicants who do not fulfil this criterion cannot qualify for subsidised HDB mortages.
- Such purchasers are prohibited from selling the flat within five years of the date of purchase.
- 8. Dr Amy Khor, Knight Frank's Director of

- Research and Consultancy commenting on the Singapore property market in the decade 1990–2000, quoted in *Singapore Property Guide* (2000a, p. 14).
- 9. The Central Provident Fund (CPF) is the governmental body responsible for the administration of funds paid into it as compulsory deductions from the salaries of workers in Singapore. The CPF Board reviews its interest rates (paid on the individual accounts held in each contributor's name) every 3 months, generally pegging it to the average interest paid on monthly fixed deposit and savings accounts by the 'big four' local banks (the Development Bank of Singapore, the Overseas-Chinese Banking Corporation, the Overseas Union Bank and the United Overseas Bank). Neither the CPF nor the HDB is obliged to maintain a strict peg, however. The CPF interest rate paid on the 'ordinary' accounts (which form the bulk of its funds) in the first quarter of 2000 was 2.5 per cent, although the banking average was only 2.14 per cent (The Straits Times, 2000b). The HDB subsidised rate in the same period was 2.6 per cent, 0.1 per cent above the CPF ordinary account rate. In comparison, the 'big four' Singapore banks charged an average of 4.25 per cent for home
- 10. Castells (1988, p. 2) observes that in many of Singapore's public policies and services, "there is a form of Welfare State". He goes on to argue that such "strong development policies", involving considerable government intervention, were necessary in Singapore's development to a position of global competitiveness.
- 11. In a follow-up story, The Straits Times reported certain flat-owners and property agents as holding the view that the change in the HDB's loan policy "may hurt those who have genuine reason to downgrade", such as empty-nest retirees on fixed pensions and families who hit hard times and are unable to maintain mortgages for their flats (The Straits Times, 1999b).
- 12. In the words of Prime Minister Goh Chok Tong, in a speech entitled "Chasing Your Singapore Dream" delivered at the Nanyang Technological University on 20 December 1996. Reprinted on the Ministry of Information and the Arts (MITA) speech archives, available at: http://www.gov.sg/mita/speech/speeches/v20n6002.htm
- 13. The essential terms of the protracted debate emerged in the following letters and articles, all published in *The Straits Times*: David T. E. Lim, Discussion and consensus work only when we listen (16 February 2000); Tay

Kheng Soon, False hopes about park and library (17 February 2000); Simon S. C. Tay, Zulkifli Baharudin and Cherian George, Role of civil service in civil society (17 February 2000); and Lim Huay Chih, Public consulted on library, Chinatown (25 February 2000) and Open-ended debate would paralyse Government (2 March 2000).

### References

- ADDAE-DAPAAH, K. (1999) Formal housing finance and the elderly in Singapore, in: G. Jones and K. Datta (Eds) *Housing and Finance in Developing Countries*, pp. 89–100. London: Routledge.
- BAUM, S. (1999) Social transformations in the global city: Singapore, *Urban Studies*, 36, pp. 1095–1117.
- CASTELLS, M. (1978) City, Class and Power. Houndmills: Macmillan.
- Castells, M. (1988) The developmental city-state in an open world economy: the Singapore experience. Working Paper No. 31, Berkeley Round Table on the International Economy, Berkeley, CA.
- Chua, B. H. (1997) *Political Legitimacy and Housing: Stakeholding in Singapore*. London: Routledge.
- DEPARTMENT OF STATISTICS (1996) Singapore, 1965–1995: Statistical Highlights. Singapore: Department of Statistics.
- DEPARTMENT OF STATISTICS (1997) General Household Survey 1995: Transport Mode, Households and Housing Characteristics. Singapore: Department of Statistics.
- DEPARTMENT OF STATISTICS (1998) Yearbook of Statistics, Singapore 1997. Singapore: Department of Statistics.
- Goh, C. T. (1996) Chasing your Singapore dream. Speech delivered at Nanyang Technological University, Singapore, on 20 December (available at: http://www.gov.sg/mita/speech/speeches/v20n6002.htm [accessed: 24 February 2000]).
- GOH, C. T. (1999) First-world economy, worldclass home. National Day Rally speech delivered 23 August (available at: http:// www.gov.sg/mita/pressrelease/99082202.htm [accessed: 24 February 2000]).
- HARVEY, D. (1989) The Condition of Postmodernity. Oxford: Blackwell.
- HASSAN, R. (1977) Families in Flats: A Study of Low-income Families in Public Housing. Singapore: Singapore University Press.
- HDB (HOUSING AND DEVELOPMENT BOARD) (1970) First Decade in Public Housing 1960–69. Singapore: Housing and Development Board.

- HDB (HOUSING AND DEVELOPMENT BOARD) (1995) Profile of residents living in HDB flats, 1993. Research and Planning Department, Housing and Development Board, Singapore.
- HDB (HOUSING AND DEVELOPMENT BOARD) (n.d.)

  Harmonious Living Through Neighbourliness:

  HDB Residents' Handbook.
- HDB Infoweb (n.d.) The land titles (strata) (amendment bill) (available at: http://www.hdb.gov.sg/isoa029p.nsf ... c5100482566b9002 b0c95?OpenDocument [accessed: 12 August 1999]).
- HDB Infoweb (n.d.) CPF housing grant for singles (available at: http://www.hdb.gov.sg/isoa029p. nsf...f6eb6482566b9002b0df2?OpenDocument [accessed: 12 August 1999]).
- HDB Infoweb (n.d.) Brief background on HDB (available at: http://www.hdb.gov.sg/isoa034p. nsf/3c5a [accessed: 11 February 2000]).
- HUTCHEON, L. (1988) A Poetics of Postmodernism: History, Theory, Fiction. New York: Routledge.
- Jameson, F. (1995) *Postmodernism: Or, the Cultural Logic of Late Capitalism.* Durham, NC: Duke University Press.
- JONES, G. and DATTA, K. (1999) From self-help to self-finance: the changing focus of urban research and policy, in: G. Jones and K. DATTA (Eds.) *Housing and Finance in Developing Countries*, pp. 3–25. London: Routledge.
- KLAK, T. and SMITH, M. (1999) The political economy of formal sector housing finance in Jamaica, in: G. Jones and K. Datta (Eds) *Housing and Finance in Developing Countries*, pp. 59–74. London: Routledge.
- LAI, A. E. (1997) Ethnic relations and the management of ethnic differences in a residential community, in: G. L. Ooi and K. Kwok (Eds) City and the State: Singapore Built Environment Revisited, pp. 162–186. Singapore: Oxford University Press and Institute of Policy Studies.
- LEY, D. (1993) Co-operative housing as a moral landscape: re-examining 'the postmodern city', in: J. DUNCAN and D. LEY (Eds) *Place/Culture/Representation*, pp. 128–148. London: Routledge.
- LIM, D. (2000) Discussion and consensus work only when we listen, *The Straits Times*, 16 February.
- LIM, H. C. (2000a) Public consulted on library, Chinatown, *The Straits Times*, 25 February.
- LIM, H. C. (2000b) Open-ended debate would paralyse government, *The Straits Times*, 2 March.
- MINISTRY OF MANPOWER (2000) Report on the Labour Force Survey of Singapore, 1999. Manpower Research and Statistics Department, Ministry of Manpower, Singapore.
- Ooi, G. L. (1995) Ang Mo Kio: the making of

- place and community in a new town, in: B. YEOH and L. KONG (Eds) *Portraits of Places: History, Community and Identity in Singapore*, pp. 158–179. Singapore: Times Editions.
- Ooi, G. L., and Tan, T. T. W. (1992) The social significance of public spaces in public housing estates, in: B. H. Chua and N. Edwards (Eds) *Public Space: Design, Use and Management,* pp. 69–81. Singapore: Singapore University Press for Centre for Advanced Studies.
- OWYANG, H. (n.d.) Review of HDB's activities for fy 1993/94, *HDB Infoweb* (available at: http://www.hdb.gov.sg/isoa031p.nsf ... e2f294 8256697000f23e7?Open Document [accessed: 12 August 1999]).
- OWYANG, H. (n.d.) Review of HDB's activities for fy 1995/96, *HDB Infoweb* (available at: http:// www.hdb.gov.sg/isoa031p.nsf ... 077ea482566 97000f23dd?Open Document [accessed: 12 August 1999]).
- OWYANG, H. (n.d.) Review of HDB's activities for fy 1996/97, *HDB Infoweb* (available at: http:// www.hdb.gov.sg/isoa031p.nsf ... d44b7482566 97000f23d6?Open Document [accessed: 12 August 1999]).
- OWYANG, H. (n.d.) Review of HDB's activities for fy 1997/98, *HDB Infoweb* (available at: http:// www.hdb.gov.sg/isoa031p.nsf ... 9f5a1482566 ed00162d66?OpenDocument [accessed: 12 August 1999]).
- SAVAGE, M. and WARDE, A. (1993) *Urban Sociology, Capitalism and Modernity*. Houndmills: Macmillan.
- SHORT, J. R. (1996) The Urban Order: An Introduction to Cities, Culture and Power. Oxford: Blackwell.
- SIEMBIEDA, W. J. and MORENO, E. L. (1999) From commercial banking systems to non-commercial banking systems in Mexico, in: G. Jones and K. Datta (Eds) *Housing and Finance in Developing Countries*, pp. 75–88. London: Routledge.
- Singapore Property Guide (2000a) Meeting the aspirations of the people, January, pp. 14–16. Singapore: Free Market Media.
- Singapore Property Guide (2000b) The executive condominium: a class of its own, February, pp. 14–16. Singapore: Free Market Media.

- The Straits Times (1999a) HDB looking into flats with a difference, 30 August.
- The Straits Times (1999b) They may just have to stay put in present flat, 7 September.
- The Straits Times (2000a) 3 new sites included under SERS, 21 February.
- The Straits Times (2000b) CPF ordinary account interest stays at 2.5%, 22 February.
- The Straits Times (2000c) Budget 2000: on a firm footing, 26 February.
- The Straits Times (2000d) Can the HDB flat ever be the lifestyle model for S'poreans?, 6 May.
- The Straits Times (2000e) Speakers' corner to open on Sept 1, 11 August.
- STRAVENS, F. (1996) Advertising in Singapore, in: K. T. Frith (Ed.) Advertising in Asia: Communication, Culture and Consumption, pp. 273–291. Ames, IA: Iowa State University Press.
- The Sunday Times (1999) No cheap loans for HDB flat cash-ins, 5 September.
- TAY, K. S. (2000) False hopes about park and library, *The Straits Times* 17 February.
- TAY, S., BAHARUDIN, Z. and GEORGE, C. (2000) Role of civil service in civil society, *The Straits Times*, 17 February.
- YEH, S. H. K. (Ed.) (1975) *Public Housing in Singapore: A Multi-disciplinary Study*. Singapore: Singapore University Press.
- YEH, S. H. K. and PANG, E. F. (1973) Housing, employment and national development: the Singapore experience, *Asia*, 31, pp. 8–31.
- YEOH, B. S. A. (1996) Contesting Space: Power Relations and the Urban Built Environment in Colonial Singapore. Kuala Lumpur: Oxford University Press.
- YEOH, B. S. A. and KONG, L. (1995) Place-making: collective representations of social life and the built environment in Tiong Bahru, in: B. S. A. YEOH and L. KONG (Eds) *Portraits of Places: History, Community and Identity in Singapore*, pp. 88–115. Singapore: Times Editions.
- ZUKIN, S. (1988) The postmodern debate over urban form, *Theory*, *Culture and Society*, 5, pp. 431–446.