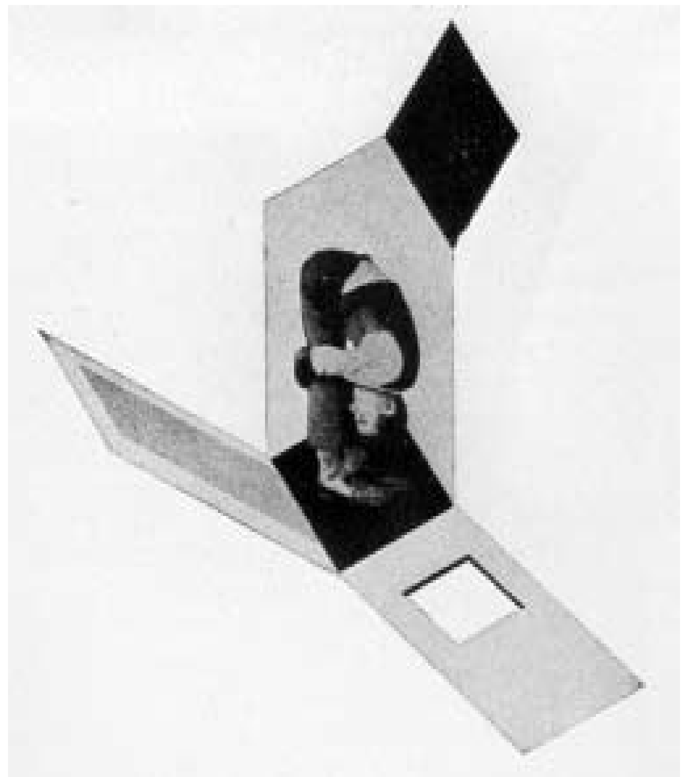
Transcultural Hybrid:
Emergence of a Hong Kong Housing Typology

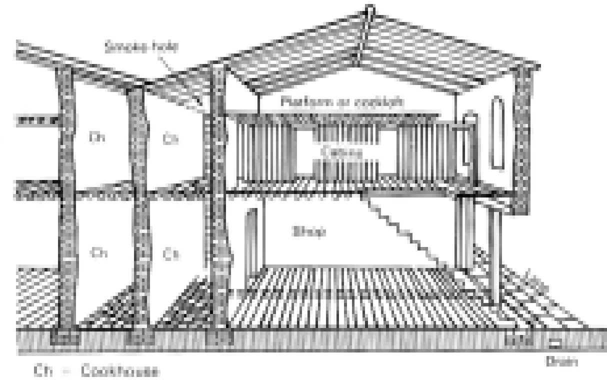
PHOEBE CRISMAN
University of Virginia

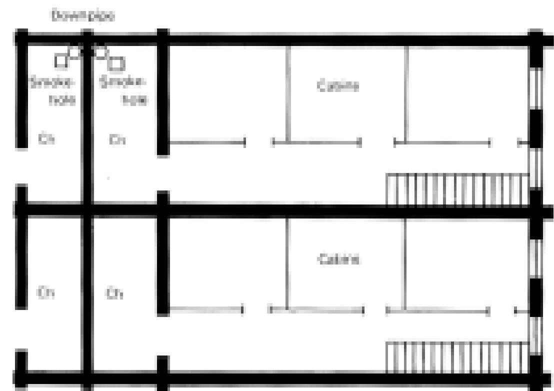


Prior to the contemporary flows of global economics, specific cultural currents intertwined to create unprecedented hybrid architectural and urban typologies. This phenomenon was perhaps most prevalent in colonial situations where local indigenous conditions were transformed by an overlay of imported culture and forms. This paper posits that the residential highrise typology pervasive in contemporary Hong Kong is the descendent of a 1950's transcultural hybridization of the traditional Cantonese urban shophouse and the modern European "existenzminimum" concept.[1] Modern British parameters for minimally acceptable light, air and sanitation formed the dwelling, while the open plan of the densely inhabited shophouse served as a cultural justification for the high density Mark I resettlement housing built by the colonial Hong Kong government. Although conceived as existenzminimum for low-income squatters, those early parameters shaped a formal typology that now houses nearly all Hong Kong social and economic groups. Minimized individual space allocations, substandard building construction, extremely dense land use, separation of housing from other activities, and an isolated relationship of dwellings to city and site are the norm. Unfortunately a primary component of the traditional urban shophouse was omitted—the shop and its' ability to open directly onto the street. Modern monofunctional architecture and urban planning principles were adopted to the exclusion of Chinese cultural norms and live/work forms. The wooden street platforms of the traditional shophouse conceptually returned, however, as hundreds of illegal street vendors set up mobile shops and established a version of the street / architecture relationship around the new housing. Learning from these ad hoc adaptations, recent projects have taken a more enlightened approach to cultural demands by integrating ground level markets within the housing itself.

Although this paper accepts as a premise certain physical, social and economic conditions indigenous to Hong Kong and crucial to the making of architecture there, the normative assumptions that architects and planners take for granted are worthy of closer scrutiny. The Hong Kong housing crises of the 1950's and 1960's were ameliorated by rapidly and poorly constructed residential complexes, but the attitudes that created such minimum accommodation prevail to this day when there is a need, but not a panic, to provide dwellings. Recently the Hong Kong highrise housing typology has become more visible in the architectural media. One book refers to the Hong Kong phenomenon as "The Aesthetics of Density."[2] Did the so-called "aesthetic" result from cultural forces, land limitations and economic need, or was it merely created to maximize profit?

Should the aforementioned book have been entitled, "The Economics of Density" or "The Aesthetics of Greed?" By examining the early development of this housing typology, an answer begins to emerge. Initially a site-specific phenomenon, this Hong Kong typology is being literally exported—primarily by and for expatriate Hong Kong Chinese—to other locations around the world. As it leaps Hong Kong's borders to other continents and cities such as Vancouver, it will influence the housing of those places and soon it will be possible to critically examine multiple conditions of cross-pollination and cultural exchange. In examining New York's United Nations, Rem Koolhaas considered it "a building that an American could never have *thought* and a European could never have *built*. It was a collaboration, not only between two architects, but between two cultures; a cross fertilization between Europe and America produced a hybrid that could not have existed without their mating, however unenthusiastic." [3] Ultimately, the ubiquitous Hong Kong highrise housing typology could never have been conceived solely by the colonial British, nor built only by the Hong Kong Cantonese.





Traditional Housing Typologies
A brief historical analysis of Hong Kong residential architecture prior to the introduction of modern, CIAM-based British housing concepts is crucial to an understanding of contemporary Hong Kong housing. In order to appreciate this history, however, it is necessary to analyze it not only in terms of its architectural conception and growth within a free-market economy, but also in relation to the formal and socio-spatial aspects of the city. In addition to squatter shacks, four types of traditional housing existed in Hong Kong prior to the beginning of public housing construction in 1953. The two least significant types for current housing development were the houseboats moored within the harbors, and the free-standing mansions belonging to British colonials and wealthy Chinese—most of which were demolished to provide building sites for large projects. The Chinese families who established themselves in the colony around the turn of the century lived in rural, enclosed communities of two-story, party-wall buildings. These village structures were a combination of living quarters, mercantile storage and retail shopfronts. Conceived as one room per floor, ad hoc partitions were set up as family requirements changed. Two to three generations living under the same roof made for crowded conditions. The upper level, open to the pitched roof, made an airy and divisible space for extended family and merchandise. The ground floor, connected to the street with large doors, often doubled as shop

and living quarters depending on the hour. Living space did not stop at the fifteen to thirty foot frontage, but extended into the street on wooden platforms. The entrepreneurial character of the Cantonese was inextricably woven with the daily necessities of family living and was manifested in the physical form of the village dwelling, as is still visible in much of contemporary Hong Kong. Examples of this typology are found in various permutations where the Cantonese have settled, such as Bangkok, Penang and Singapore. The fourth housing type, the urban shophouse, was a far denser version of the village model—with the addition of one or two more floors and an increase in depth from perhaps twenty-five feet to over fifty feet. Greatly increased urban density resulted from back to back construction, and the street wall was the only source of natural light and ventilation. The density of housing units overwhelmed the urban infrastructure that carried over virtually unchanged from the village. Social structure also changed. Upper floors were divided by wooden partitions into cubicles, less than ten feet in either direction, which entire families occupied. Unrelated families now lived under the same roof and shared cooking, washing and sanitary facilities. The live/work arrangement and shopfront relationship to the street was maintained in this denser typology, but was no longer available to all households within the multifamily dwelling.

Early Public Housing Policy

The extreme overcrowding and poor sanitary conditions that resulted, at both the architectural and urban scale, necessitated public intervention with the appointment of a Housing Commission in 1923. Methods of increasing inexpensive private and public housing stock were suggested, but no significant action occurred. Worsening conditions by 1935 spurred some members of the Commission to insist on public intervention, but it was decided that government could only try to limit the effects of a density acceptable in Chinese culture. The 1935 "Report of the Housing Commission" stated that "to a large degree, the existence of conditions could be accounted for by the fact that before coming to Hong Kong, many Chinese were used to living in compact rural communities where sanitary arrangements were very basic and *overcrowding merely a way of life*."[4] Based on this cultural observation, the Commission implemented what they saw as a reasonable minimum standard of accommodation: 3.25 square meters of habitable floor area (reduced from the earlier 4.25) and 9.9 cubic meters of volume per adult. A schedule of minimum clear distances from windows to adjacent obstructions was also devised. This 1935 "Schedules of Accommodation and Distance" set the parameters for minimum requirements that

developers to this day, both public and private, use as a maximum. For instance, in contemporary housing design window distance usually determines both architectural plan configuration and arrangement of multiple buildings on a site. Thus, the incredible consistency of housing plans is largely attributable to these schedules.

Modern British Planning and Existenzminimum Principles

The colonial government approach to the Hong Kong housing crisis may be traced to early modern British town planning and housing efforts. Although the British New Towns Act was not passed until 1946, early planners such as Sir Patrick Geddes and Raymond Unwin studied housing density and distribution. By 1933 MARS (Modern Architectural ReSearch), the British chapter of CIAM, was established by Wells Coates and Berthold Lubetkin. Both these architects focused on issues of minimum dwelling provisions for the lower classes. For example, Coates exhibited a "Minimum Flat" project in 1933 and built the Lawn Road Flats in 1932-34, which included "minimum flats" of only twenty-five square meters. This British interest in minimal dwellings was undoubtedly influenced by the themes of early CIAM meetings. CIAM II: "Die Wohnung für das Existenzminimum," was organized by the German housing innovator Ernest May and was "devoted to comparative study of the problem of housing for the lowest income classes."[5] Hong Kong British planners and architects were well aware of these activities at home, and embraced the existenzminimum

concept.[6] However, this minimum dwelling idea was pushed to ridiculously low area allocations with the supposed Chinese cultural justification given in the 1935 report.

Emergence of a Hong Kong Housing Typology

Although numerous public recommendations were made to reduce overcrowding and improve sanitation, the provision of public housing and the development of a new housing typology did not occur until after the disastrous 1953 Shek Kip Mei squatter settlement fire that left 53,000 people homeless. Such spontaneous settlements multiplied with the influx of refugees after World War II and the establishment of the People's Republic of China, as the population of the territory swelled from 600,000 in 1946 to 2.3 million in 1952.[7] More than a third of Hong Kong's population at the time of the fire was squatting on Crown land in huts of discarded materials, with no water supplies, sanitary facilities or waste disposal. Scattered around Hong Kong Island and Kowloon in settlements ranging in size from a few thousand to over one hundred thousand inhabitants, there was little that the colonial government felt it could do but to provide areas where squatting would be tolerated until more permanent action could be undertaken. Following the fire it was decided that high-density relocation structures would be built on the cleared squatter site, with the Housing Commission allocating revenue for eight, six story "Mark I" housing blocks. In 1954 construction began on the first government funded relocation structure that would set the precedent for highrise housing construction for the next forty years—public or private, low, middle or high income. These Mark I blocks set five precedents: substandard building construction, grossly minimized space allotments in individual flats, separation of housing from other activities, extremely dense land use and an isolated relationship of dwellings to the city and site.

Substandard building construction

Once the Housing Commission decided to build public housing, they set the priority of constructing the most basic shelter as quickly and as inexpensively as possible. The long arms of the H-shaped Mark I block contained sixty-four back-to-back rooms with a ventilation screen at high level between units. Only the cross bar of the H contained running water and communal latrines. The building was conceived of as a shell, with in-situ reinforced concrete as the sole building material aside from doors and windows. As in the shophouse, residents often constructed makeshift mezzanines or "cocklofts" to double their living space. Continuous walls between units at ten meters on center made the up the vertical structure from ground level to roof. Floor slabs

were cantilevered one meter for perimeter balcony circulation. Concrete was formed with rough timber boards on bamboo scaffolding. Simple construction process and the lack of finish eliminated the need for skilled labor and reduced construction time to seven or eight weeks.[8] This substandard construction method still determines the form and technology employed in contemporary Hong Kong housing. In-situ reinforced concrete, formed by unskilled labor using disposable wood shuttering for all walls, floors and structure, remains the material of choice for private as well as public development, and speed of construction far outweighs careful finish or accuracy.

Minimized dwelling space

The goal of the resettlement blocks, as stated by the government, was to provide residents with a fire proof, typhoon proof and reasonably hygienic shelter. Space allowance per person was reduced a full square meter from the 1935 requirements to 2.2 square meters per person (24 square feet) and half that for children, with the explanation that the urgent situation warranted such a reduction. This meant that the typical eleven square meter

unit (120 square feet) was to accommodate five adults or three adults and five children.[9] The example set by the government in this and subsequent developments, coupled with the still extant minimum of 3.3 square meters per person, have set the standard for a large majority of public and private housing. The net floor area of a three bedroom, middle income flat in Hong Kong, for a family of five or six, averages about 400 square feet. This is well above code limits, but as no minimum room sizes are stipulated, a bedroom is frequently less than six feet in either direction. Such tiny flats have generated social repercussions. As a result of crowded conditions at home, the city's residents flee to streets and shopping malls that are enervated on Saturdays to the point of pedestrian gridlock. Although contributing to urban vitality, the Hong Kong press has noted that the family home as a place to sleep only, combined with parents holding more than one job each, results in a lack of family life and cohesion critical to traditional Chinese culture. Unlike the minimum, monofunctional dwelling, the multi-generational, mixed-use traditional shophouse supported that culture.[10]

Separation of housing from other activities

The traditional live/work arrangement was severed in the Mark I housing. Separate factory blocks were constructed to move family workshop activity from the home into a distinct building type. Such modern functional divisions dominated housing design until quite recently. This division impacted not only the architecture, but its' relationship to the street and consequently the city.

Extremely dense land use

In selecting housing sites, the government insisted that the only available land on the Island were squatter areas cleared to accommodate the original inhabitants at even higher net densities. This decision set the stage for a compact, vertical, high-density residential city form that has given Hong Kong its unique characteristics. The 1954 Mark I housing blocks, tightly packed within tall barrier walls and placed on a superblock surrounded by high speed roads, bear a categorical visual and substantive relationship to nearly all subsequent public and private residential development. The barrier walls evolved into continuous three story podia, further isolating the tower residents from the ground plane. In 1956, plot ratio (Floor Area Ratio in the United States) and height maximums were eased to allow construction of highrise blocks of twenty-five to forty-five stories at the density of the original Mark I blocks. Thus was born the highrise housing that has come to dominate the Hong Kong skyline—a grossly minimized interpretation of the 1935 *Schedule of Accommodation* that produces nearly identical cruciform towers placed as tightly on a site as gross floor area allows (as little as 5 meters apart).[11] Hong Kong architects frequently remark that the territory's residential towers and new town planning are the realization of Le Corbusier's *Ville Contemporaine*. The cruciform profile, functional stratification (discrete layers of industry, commerce and housing) and de facto separation of classes by housing estate certainly bear similarities to Le Corbusier's proposal. The key component of Le Corbusier's urban vision is not the cruciform tower, however, but the *extensive space in between* the towers and the consequent openness of the ground plane. *Espace* is the crucial element missing from Hong Kong town planning that denies comparison with the *Ville Contemporaine*. A further development appears in many post-1970's housing projects, which often completely eradicate the tower-ground relationship with immense elevated podia that provide a multilevel base of parking and other uses. The three to four story, continuous street wall of the urban shophouse typology returns without the fine-grained articulation of individual buildings.

Isolated relationship to the city

This type of monofunctional planning and architectural podium design has resulted in housing developments isolated from their immediate context and the city as a whole. Although in some instances other uses have accompanied housing, this has been more the exception than the rule. In Hong Kong, housing has been regarded as a problem distinct from overall planning. Major housing estates and new towns have been built without consideration of the activities and physical elements that constitute a rich urban environment. The single most important factor for the government in determining housing location has been the availability of unused land, without equal regard for the planning of social services, commercial districts or employment. The typical New Town in Hong Kong is a monotonous hermetic archipelago of walled sub-new towns, each functioning independently on the site provided. This condition was quickly subverted by the occupants of the Mark I relocation structures. Although some small, single bay, ground floor shops had been built into the project, no provision was made

for vegetable or meat markets, as it was assumed that tenants would go to markets elsewhere. Since this type of food market is mobile, however, it shortly came to the project and suddenly changed the character of the street. Over a short period of time, street life evolved in an ad-hoc manner, responding to people's needs for services that the government neglected to provide. The wooden street platforms of the traditional Cantonese shophouses conceptually returned. Barbers, legal advisors, fortunetellers and of course hundreds of vegetable and meat vendors set up mobile apparatus as the city's occupants redefined their urban space. As Edward Soja states, "Spatiality [is] simultaneously a social product (or outcome) and a shaping force (or medium) in social life."[12] Having learned this lesson, but nervous about health conditions, government estates have since provided for this kind of market activity in regulated stalls, though the indeterminate form and action of the unchoreographed street market is difficult to simulate. Recent projects have taken a more enlightened approach to cultural demands, and have simply provided an enclosed space for urbanity to proceed at its own pace and to define its own space.

Conclusion

Ultimately, a particular hybrid architectural and urban condition developed within the colonial confines of Hong Kong. The traditional Cantonese shophouse and the modern European existenzminimum cross-pollinated to produce a specific Hong Kong highrise housing typology. In many respects, this extreme transcultural hybrid exemplifies the problem of universal norms overlain on regional culture and identity. The spread of this Hong Kong typology around Asia, North America, and Australia by 1990's Hong Kong Chinese emigrants—another cultural exchange resulting from shifting political conditions—raises a number of questions. Could it be that these impossibly dense, monotonous and minimal dwellings, generated by complex and dual cultural, economic, legal and climatic conditions, have become a means of dwelling now firmly embraced by Hong Kong residents—or are profit maximizing development tendencies merely relocated? Perhaps the proliferation and apparent success of this transcultural hybrid suggests the potential richness of cross-pollination and cultural exchange within the shifting political and cultural global condition.

NOTES

[1] The German term "existenzminimum" is an apt description for the conceptual basis of the colonial Hong Kong Housing Commission. Existenzminimum was the theme of the CIAM II meeting, "Die Wohnung für das Existenzminimum," which focused on comparative studies of low-income housing. In the case of Hong Kong, however, such spatial minimums are extended to middle income dwellings as well.

[2] Vittorio Magnago Lampugnani (ed.), *Hong Kong Architecture: The Aesthetics of Density* (Munich: Prestel Verlag, 1993).

[3] Rem Koolhaas, "Globalization," *S,M,L,XL* (New York: Monicelli Press, 1995): 363. An insightful reader has pointed out that Koolhaas' European-American hybrid was actually the work of an "other," the Brazilian architect Oscar Niemeyer.

[4] Quote from W.H. Owen's memorandum in *The Report of the Housing Commission* (Hong Kong, 1935). Reprinted in Luke S.K.Wong (ed.), *Housing in Hong Kong*, (Hong Kong: Heinernann Books Ltd., 1978): 83.

[5] Eric Mumford, "CIAM Urbanism after the Athens Charter," *Planning Perspectives* 7 (1992): 392.

[6] Post war MARS housing ideas were discussed further at CIAM 6 held at Bridgewater, England in 1946, and CIAM 8 convened at Hoddesdon, England in 1951. For an indepth CIAM history, see Eric Mumford's article cited above and his book, *The CIAM Discourse on Urbanism, 1928-60* (Cambridge: MIT Press, 2000).

[7] E.G. Pryor, *Housing in Hong Kong*, (Hong Kong: Oxford University Press, 1973): 24.

[8] This description of early public housing construction is based on an essay by B.F. Will, "Housing Design and Construction Methods," in *Housing in Hong Kong,* Luke S. K. Wong (ed.), (Hong Kong: Heinernann Educational Books, 1978): 95-100.

[9] ibid, 101.

[10] The new housing type generated in the 1950's could have easily redefined the amount of space available for home life, but three major factors contributed to the current situation. First, developers could count on precedent or tradition. Large living quarters were unknown to most of the population. Second, the high cost of scarce, buildable land was used as a justification for small flats that were theoretically more affordable. This, however, raises a third and larger issue of monopoly. Two types of monopoly operated in Hong Kong, one at the government level and one at the level of private development. As a leasehold state, Crown land was artificially kept in short supply in order to keep the demand and prices high. Three factors contributed to this. First, mountainous terrain renders much of the region undesirable

for building. Second, government opposed building on land in the interior of the islands and much of the mainland, preferring to preserve parklands for public use. Finally, the little buildable land that remained was incrementally put up for auction. Most often, this involved land recently "reclaimed" by the dredging and filling of bays, wetlands and coastlines. The auctioning of leaseholds was the Crown Government's principal source of income and it was always sure to get the highest price. If a minimum price was not bid, the offer was often retracted until a future date when demand would determine that the minimum price was reached.

[11] For a graphic analysis of what Jacob van Rijs calls "Extruded Optimization," see his article, "Far East: Hong Kong Tower Typology," in Winy Maas and Jacob van Rijs with Richard Koek (eds.), *FARMAX: Excursions on Density* (Rotterdam: 010 Publishers, 1998): 182-183. Also in the same book, see Kenneth J.K. Chan, "Plot Ratio and Site Coverage in Hong Kong": 186-187.

[12] Edward Soja, *Postmodern Geographies* (London: Verso, 1989): 7.

FIGURES

Fig.1 Minimal Dwelling, Anonymous 1924. Published in Herbert Bayer, *Bauhaus, 1919-1928,* 1938.

Fig.2 Hong Kong Housing, 1996. Michael Petrus photo.

Fig.3 Hong Kong Urban Shophouse, 1880. Chadwick Report on the Sanitary Conditions of HK, 1880.

Fig.4 Urban Shophouses, Wanchai HK, 1935. E.G. Pryor.

Fig.5 Mark I Public Housing, 1954.

Fig.6 Hong Kong Highrise Housing, 1996. Michael Petrus photo.

Fig.7 Hong Kong Highrise Housing, 1996. Phoebe Crisman