Correcting the Social Structures within

the

Skyscrapper

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Skyscrapers were built in a heroic era, when architects believed they could improve society through architecture. Perhaps the living conditions of the industrialized city demanded no less of architects. In 1905, Canadian architect Stanley Picket wrote,

> There was a sense of mission about the task planners saw before them" where the old had to be swept away to give rise to the new, where …our cities must be renewed; for if they are not, the blight spreading at the cen tre will slowly and insidiously strangle the ef ficiency of the city and may eventually render it unable to carry out its functions.

Stanley's 'blight' included overcrowded working-class housing. It was also the dark and dampness, and the absence running water, sewers or heating in buildings. They were all conditions that spawned disease, crime and social unrest (Sewell, 105)

The skyscraper promised to fix many of these problems. They placed their tenants high in the air with access to good ventilation and light. Most of all, they were a typology that provided economical housing units. In post war Europe, especially in the Soviet Bloc, they became by far the favoured housing type.

Le Corbusier was amongst the earliest practitioners to champion the skyscraper. In his Ville Radieuse, he envisioned a city of skyscrapers, where the ground plane was left free and open for the pedestrian. Buildings and roadways were to be elevated off this common plane. With the skyscraper, a good balance could be achieved between density and the need for natural light and ventilation. Le Corbusier also recognized the possibilities of creating new social arrangements with skyscrapers. To him, they were cities within cities. He freed the ground plane and rooftop for social and recreational use where inhabitants could mix form a new social unit similar to that of a neighbourhood. I
Le Corbusier was enthusiastic about the promises of skyscrapers. He encouraged his Ville Radieuse in cities around the world, including New York to Algiers, in the name of creating modern, efficient and economical housing. In Toronto too, skyscrapers were eagerly endorsed as the primary building type, and were slated across the downtown from Bloor to the lakeshore (Sewell, 125). Amongst the first high-rises in Toronto

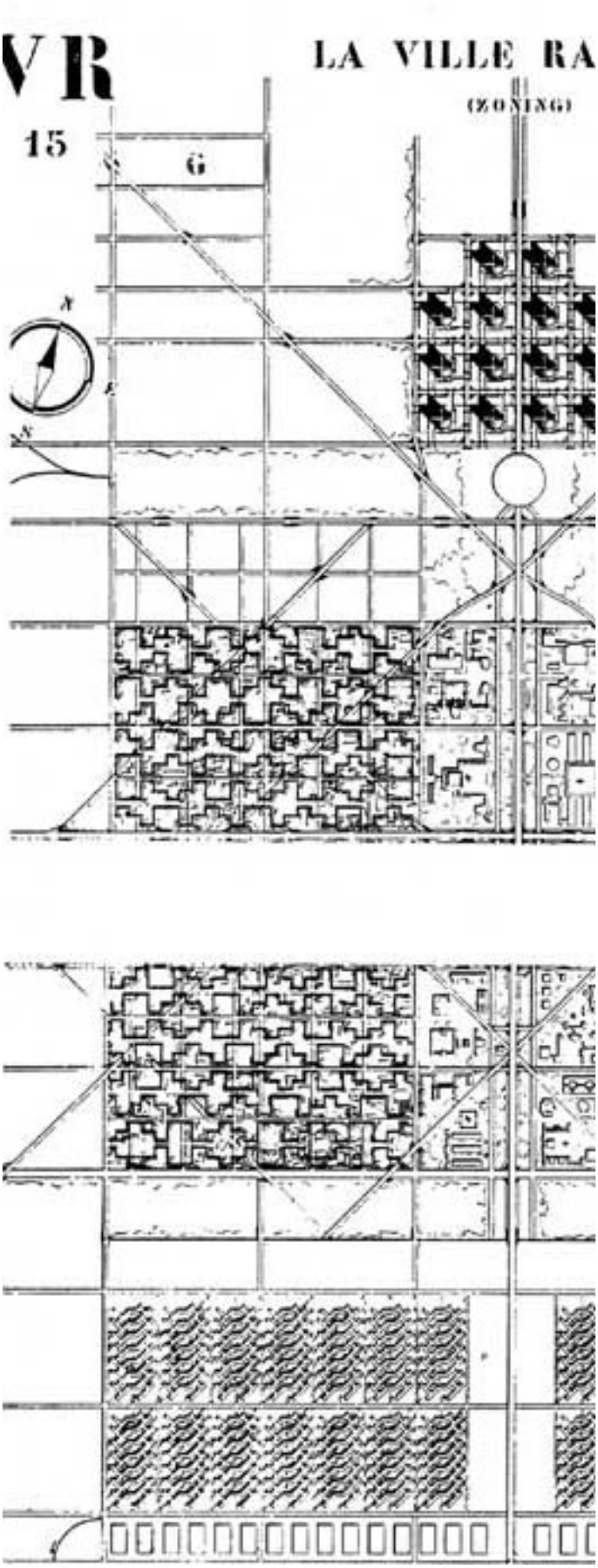

Fig 1. Ville Radieuse

were those built to replace ‘blighted’ neighbourhoods, including St. Jamestown, Regents Park and Moss Park. “St Jamestown practically fell from the sky in 1968, blasting away scores of single-family dwellings and getting intense all at once” (Toronto Star, Sep 24, 2006).

In a recent Toronto Star survey linking crime rates to residential neighbourhoods, it is evident that social housing projects like St Jamestown, as well as high-rise neighbourhoods like Jane and Finch are hot spots. Some may point their finger at the high densities of these areas. But this argument holds little water when Toronto densities are compared with European cities like Paris or Munich where the densities are generally higher although even, and crime levels comparable (Witfield, 122). Instead, if crime is understood as the fraying of social structures, the root cause may be how the skyscraper arranges social structures.


Fig 2v. St Jamestown

If one is to compare a traditional Victorian street in Toronto, Queen Street West with a street that fronts a high-rise neighbourhood, Queen Street Wast fronting Moss Park, the first arrangement furnishes each unit with their own entryway onto the street. Queen Street West is a common mixing plane that everyone shares and participates in. It is the backbone of that neighbourhood. The same cannot be said of the same street fronting Moss Park. It is not only that the apartments are specially removed from the street, that it breaks the street wall and generates a sea of negative space between the towers and the street, it is in how the high-rise typology functions. There is only one entrance, making it akin to horizontal suburban arrangements where through traffic is restricted and sometimes even guarded against through-traffic. Also, residents are arranged vertically, where vertical movement is serviced by the elevator, a visually impermeable box that skips all happenings of the floors even immediately below or above the resident. In the average high-rise, there is no mixing plane - there is only a 6x9 ft mixing box.


Fig 3. Moss Park

The social unawareness the skyscraper produces is well documented in the following Star article:
Well past 9pm officers were still systematically going through the apartments, including Unit 1202 on the 12th floor. Inside the apartment, placed on the kitchen floor, were rows upon rows of potted baby marijuana plants…No sooner had drug squad officers finished their work at 2600 Jane St. yesterday morning – they

seized 6,000 plants and almost 14 kilograms of dried marijuana – when they drove around the corner to 2020 Sheppard Ave. W. to another highrise and another grow-op, this time in a 14th-floor unit.

Toronto Star, Nov 24, 2006

That day, twenty-two apartments in the neighbourhood were found to house grow-ops, but the scale of the operation had somehow entirely escaped the awareness of people living only meters away. Unlike in the suburban house where large quantities of energy and water are gagged and easily detected, there is no way of measuring utility intake per unit in a highrise. The apartment unit, despite its density, is as socially isolated as a single family home on a cul-de-sac, within a gated community. Thus the high hopes of the twentieth century have been broken by the persisting conditions Modernists sought to eradicate.


Fig 4. Copan Building

Any attempt therefore to fundamentally alter the highrise must address how it supports social interaction. Vertical circulation must bind the highrise into coherent social neighbourhood; opportunities for casual encounters should be facilitated by more generous spaces, and towers should connect with their neighbouring context in a way that promotes a larger scale social consciousness.

We propose four planes for public interactions, the ground, the roof and two floors that occupy two complete floors in between. There is no direct access from the ground to your individual unit. Instead, these 'mixing floors' are where residents can either go up or down from to access their apartments. It is where daycares, markets, video stores, and other day-to-day services are located. Buses or other forms of mass public transportation may also be situated on these floors to provide inter-building horizontal transportation. The roof plane with its particularly advantageous exposure to daylight utilized for planting and recreation activities. In this way, serendipity for skyscraper residents are maximized, and social networks enriched.


Fig 5. L'Unite de Habitation. Recreational rooftop

This model is not unlike Niemeir's Caban building, Sau Paulo, or Le Corbusier's Unite. In both examples, the one floor midway inside the building is dedicated as a public street. Le Corbusier also frees the ground plane and rooftop as public recreational spaces.

Le Corbusier also invented the ramp as a means of vertical circulation capable of tying stacked floors with each other. In the Carpenter Centre, Boston, the ramp is really the elevated ground plane that provides a common datum line for activities to occur.

Similarly, this proposal utilizes the ramp, not only to tie a single building together, but a series of highrises into a larger social unit. Beginning at the ground level, it weaves its way up, delivering residents on foot, bicycle and possibly even motorbikes to key 'mixing floors' and the public rooftop. These public promenades are like stacked streets. Commerce line either side of them. They are the public means of vertical movement.

Ramps however, are inefficient to move up and down with. Public elevators at key nodes provide quick inter-floor connections. In addition, each residential tower has its own elevator core, accessed at the mixing floors. To expand the connectivity of the usual elevator, these are transparent, and each elevator shaft is associated with a larger vertical void. Single loaded skip-stop corridors lining the void provide access to every unit. The void thus becomes a connective element which all of the inhabitants share, and the elevator a means of experiencing this vertical space.

The voids are also a means of bringing additional sunlight and ventilation into each unit. They are also the chief vertical structure, and space where utilities and communications run. In this way, they are similar to those folds that bring the exterior into the interior of Fuksas' Milan Convention centre. They are also similar to Toyo Ito's Mediateque in how the voids combine structure, utility and a means in providing sunlight.

The voids are not only experience vertically from the elevator but horizontally from the ramps. The ramps string the buildings together, passing through their voids. In this way, the larger public also experiences the private, residential, internal voids. Thus another layer of interaction and awareness is achieved.

In these ways, mixing floors simulate the natural cohesive forces of streets in a traditional neighbourhood. Vertical forms of movement are made as socially rewarding as the horizontal street, and the combina-


Fig 6. Carpenter Center

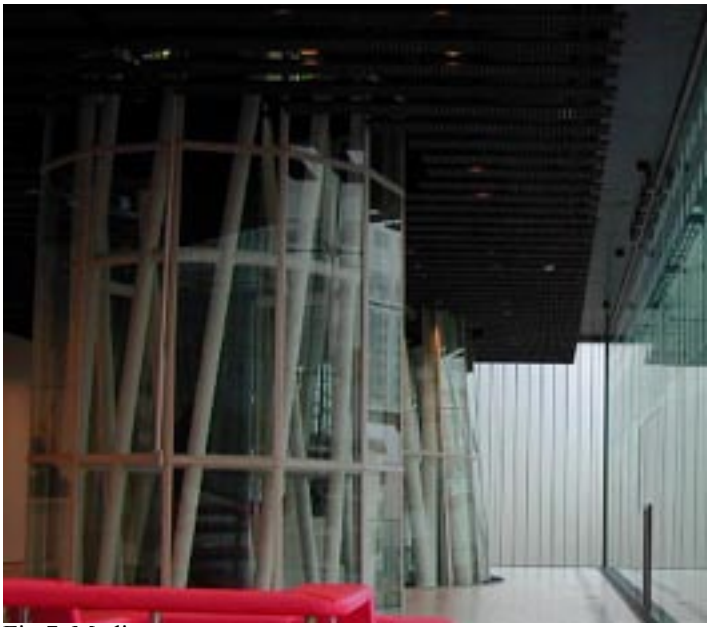
Fig 7. Mediateque


Fig 8. Moss Park

tion of both horizontal and vertical means of circulation raises a complex and improved social awareness throughout. Finally, the shortcomings of the Modernist experiment have been solved, while the initial Modernist promise of the skyscraper as a socially viable city-building unit is restored.

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Photo Credits

Fig 1. Ville Radieuse. http://img136.exs.cx/img136/6559/p1010097r8bj.jpg

Fig 2. St Jamestown

Fig 3. Moss Park.

Fig 4/. Copan Building. www.skyscrappercity.com

Fig 5. Unite. www.skyscrappercity.com

Fig 6. Carpenter Center. http://www.ves.fas.harvard.edu/CCVA/ccvahome.html

Fig7 & 8. Mediateque.