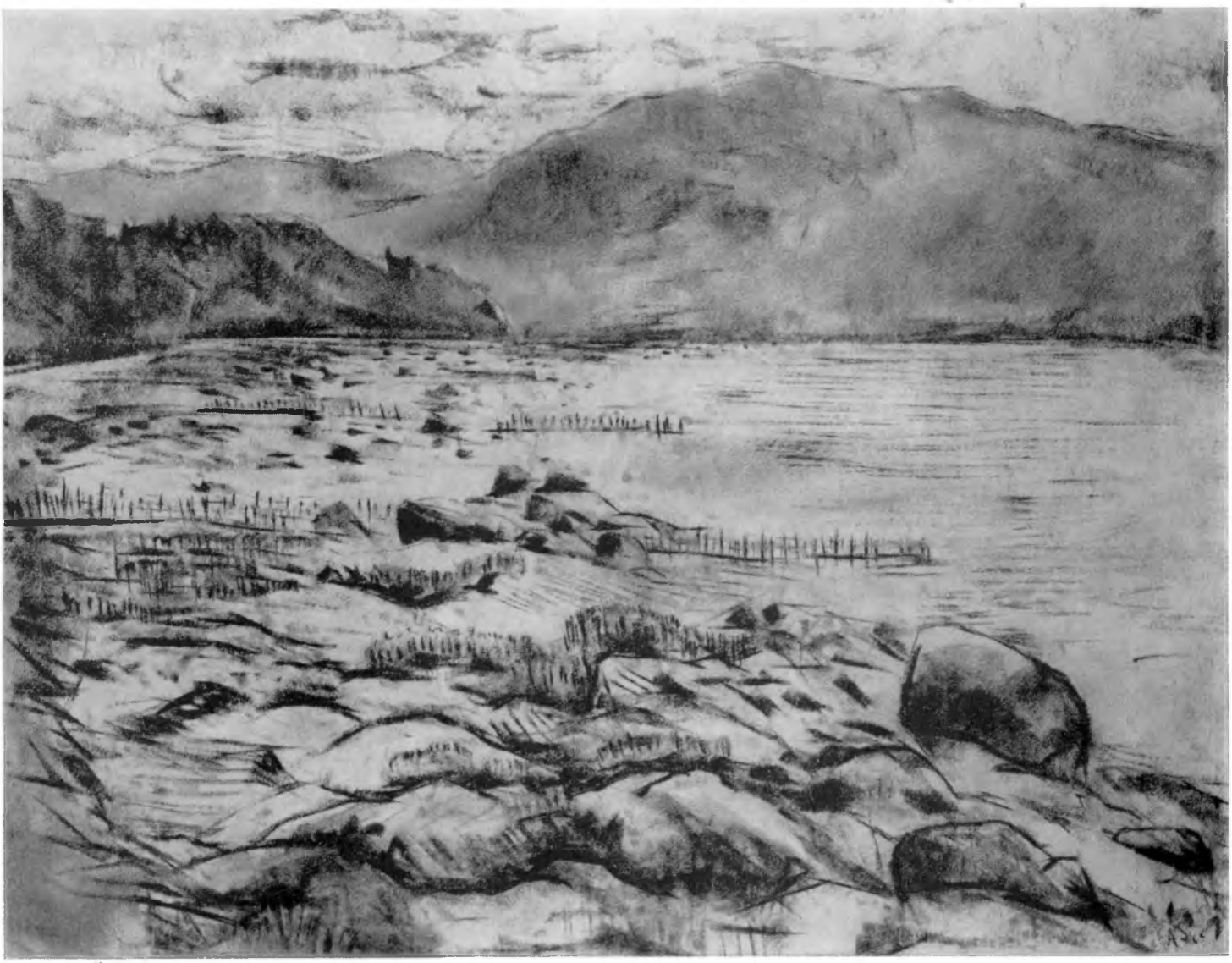
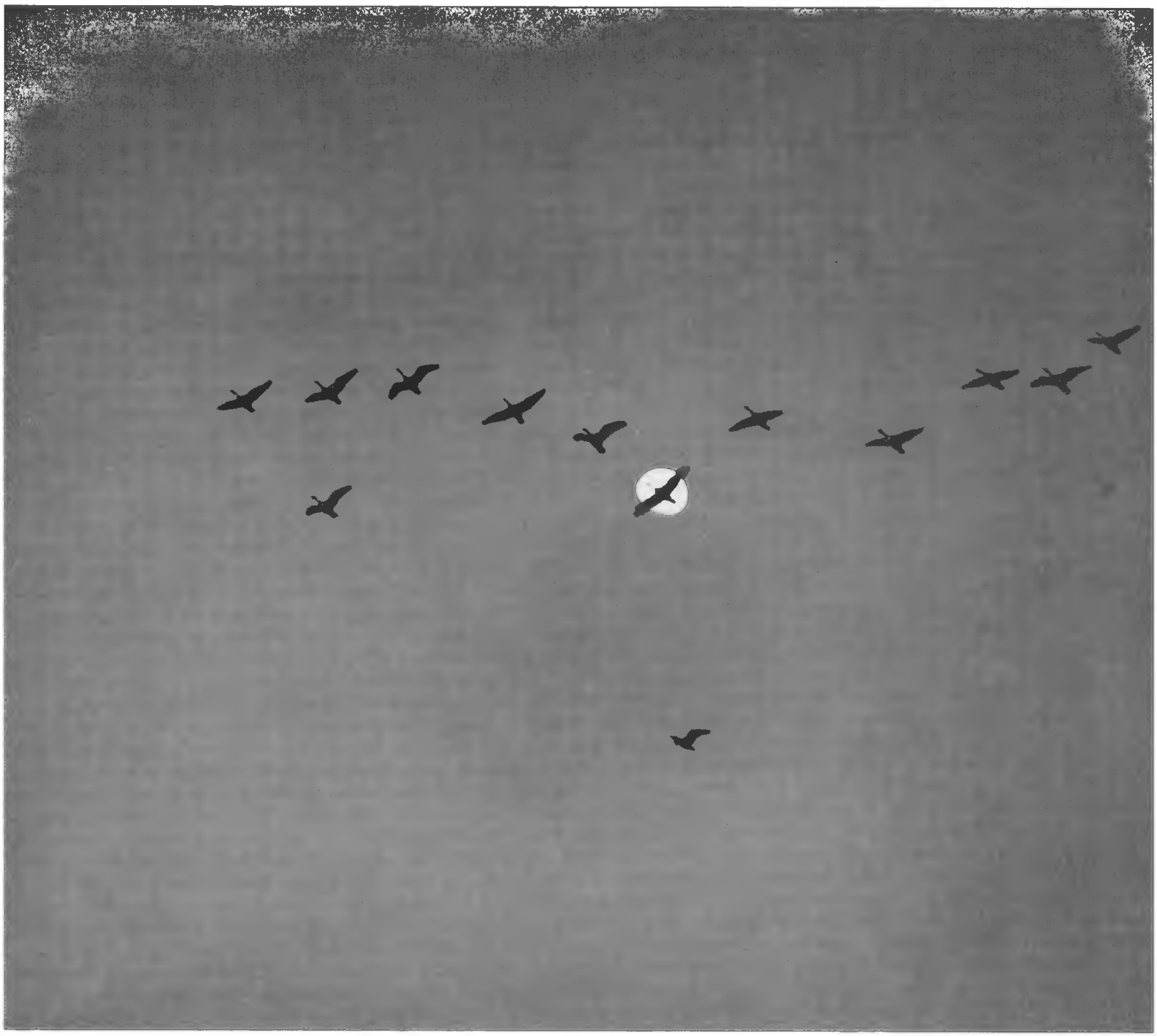


HABITAT

MARCH-APRIL, 1964
MARS-AVRIL, 1964



HABITAT VOLUME 2 NUMBER 7

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class matter by the Post Office Department and for payment of postage in cash. Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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FRONT COVER: *"Low Tide" by Andrejs Skaburskis a member of the McGill Sketching School—story on page 2.*

INSIDE COVER: *Canada geese returning north. Photograph taken in April moonlight along the shore of Lake Erie. NFB*

WHAT WOMEN WANT IN HOUSING

Housing Design and the American Family is a study conducted for the National Association of Home Builders and House and Garden Magazine by Mark Clements Research Inc. It presents the attitudes of women, who have had two or more ownership experiences, towards house design.

The study was conducted with more than 200 housewives in each of six typical American cities. The interviews were in two categories; those with homes valued between $14,000 and $24,999—$25,000 and $50,000.

The individual respondents answered questionnaires and in addition, had a two-hour group concept-testing session. It should be emphasized that the purpose of the study was not to develop a "model" or "ideal" house, but was intended to produce ideas with regard to the subject of design.

Expressed in the book are 15 basic ideas:

Three entrances were essential for most women.

Everyone wanted a foyer.

The kitchen is the control center of the house.

Women would like to have a pantry.

The living room is a misnomer. Many envisioned it strictly for company; others, as a return to a parlor-type room; and the minority, as a room "to live in".

The dining room is indispensable, but should be adapted to secondary uses.

The master bedroom should be larger.

Children's bedrooms require built-ins.

Storage should be included in bathrooms.

Lighting could be improved for cosmetic and practical purposes.

The family recreation room is a must.

Larger garages are desired not solely for two cars, but also for all the other items that must be adequately stored. The laundry area is a problem requiring a better solution than is available.

Ease of maintenance is a desired element.

Storage throughout the house would solve many of the problems of the acquisitive family.

The book then goes on to give a summary of findings and a section is devoted to direct quotes from the interviews. The book should be of great interest to the professionals in the housing field but it will also be useful to individuals who wish to purchase a home.

The book is published by NAHB JOURNAL OF HOMEBUILDING, 1625 L. Street NW., Washington, D.C.

✦ ✦ ✦

Base Camp, Pine Woods, Rivière du Gouffre.

McGILL's Venerable Sketching

It has been a tradition at the McGill School of Architecture for the students to take field junkets during the fall term to sketch the surrounding country-side.

Long ago in the days of Ramsay Traquair, the former head of the School, and a scholar of French-Canadian Art and Architecture, the students would visit old churches and clamber up the stairs of old altars. Many a swag, cartouche and bracket were measured, and on sleepy Saturdays through the following winter, were beautifully drawn.

Neat little sketches were made in the field. Line work was sharp and each line ended with a snap and a twist of the wrist. Guptill was in vogue. "Pencil Points" was a source of inspiration.

But as the years passed by and the sketching school carried on, the students graduated from 3H to 3B and from monochrome to full color. Timidity disappeared and vigor developed. Ideals and hopes were transformed and the architectural student began to see and to draw and paint leaves, stones, twigs, mountains, valleys, abandoned cars, junkyards, silos and oil refineries; people in shops, streets and taverns; birds, fields, cows and sky.

In recent years, Professors Gordon Webber ('42-'63) and Stuart Wilson ('48-'63) have instructed annually at the sketching school. During the years 1942-54, Dr. Arthur Lismer attended and presided over this team of instructors. He would invariably open the session by performing dazzling feats of draughtsmanship to awe-struck students. Perched on a pile of wood or standing in any open space and glancing around at the scene, he would select at random various dispersed objects as subject matter and combining and re-arranging, he would compose his painting.

In restaurant or hotel dining-room, many a restaurateur, accustomed to disappearing ash-trays or flatware, has wondered why dishes had become so cherished. With ink flicked from fountain pen onto clean porcelain, and deft pushes of ink blobs, Dr. Lismer satirized his companions in plate-top caricatures.

For two short periods of two weeks each during their last three years of architectural training, the students have gone sketching and the school has always been held in a different place each year. Visual scenes have been experienced and studied in the mountains of Ste-Adèle and St-Benoît-du-Lac, near

The photo below shows an artist under full sail in search of a sketch. The artist and author of this article, Professor Stuart Wilson has been teaching architecture at McGill University since 1948. He is a graduate of that University and also attended the Montreal Museum of Fine Arts. No ivory tower professor, he has worked with many architectural and engineering organizations on such projects as St-Paul-l'Ermite, Shipshaw, the Norseman Airplane Company, the Library at Chalk River, the Supersonics and Thermodynamics Building for the National Research Council at Ottawa and Place Ville-Marie in Montréal.

School

by Stuart A. Wilson

big industry and boats at Sorel, amongst romantic views and old French buildings at Québec, near English neo-classicism and the big lake at Kingston, near the Rideau canal and locks and the spiky buildings in Ottawa, the little city which is the center of government for a big country, near falling water and mist at Montmorency Falls, and in Ste-Pétronille, at the upper end of Île d'Orléans in a little hotel in the middle of the river, and many other places.

No matter where we went one melody ran through in all its variations, the song of the big river, the lake, the smaller rivers and their lakes.

This year, sketching school was held at Baie-St-Paul, 60 miles below Québec in big-boned Charlevoix County. And as the sign says as you roll over the road which rolls over the mountains and through the forests, this is really "Le Comté de Charlevoix—Paradis des Artistes, Attraction Touristique". You will not notice any bragging in this announcement, merely a statement of fact.

Charlevoix County lies beside the broad slightly salty St. Lawrence, in the northeastern part of Québec and stretches along the river from the "côte de Beaupré" to "Baie-Ste-Catherine", opposite Tadoussac.

To reach Charlevoix, there is a choice of several possible routes and methods of transportation. A very fast road, highway No. 9, runs from Montréal to Québec, north of the Eastern Townships. Being both fast and dull, this route is inadvisable. An alternative is to travel Parlor Car to Québec, a recommended way. But for leisured people or those who wish to acquire at short notice a leisured attitude, a habit most necessary for those wishing to study the life and landscape of Charlevoix county, perhaps the best way to travel is as follows; select one old, but still good, demountable type, open-top 2 CV model Citröen, load up all the interior space, not needed for driver and passenger, with baggage and sketching equipment, and follow along the North shore past Bout-de-l'Île and St-Paul-l'Ermite, in a nonchalant manner, if you can.

While the Citröen is doing all the work, you gaze around at the fields, farms and blue river while soak-

Montmorency. WILSON

ing in the sun. In this manner, you finally pass by the elegant twin towers of the church of Berthier-en-haut, built by carpenter Joseph Latour in 1812. In Berthier you disembark across from the flat green islands in upper lac St-Pierre where herds of happy horses frolic. Berthier's wide balconied hostelries beckon and it is indeed a hurried traveler who fails to take advantage of the offered refreshments. After forming a suitable attachment for Berthier, the road is followed across islands to Ste-Anne-de-Sorel and a ferry.

Sorel, at the mouth of the Richelieu, a waterway which may be connected, some day, with a new and deeper canal through a split in the southern mountains, with the Hudson and New York, contains boats, ships and much else, and carries in its shops some of the indispensable items which you thought you had packed but which you realize you have forgotten. You are permitted to add to the store of baggage and equipment which fills every last cranny of the car.

From Sorel you proceed across a plain to Yamaska, St-Francois-du-Lac and Pierreville, all the while admiring the fine-jointed brickwork of farm-houses built in the Eastern Townships manner, a blend of English and French influences. Onwards, beside an escarpment overlooking lac St-Pierre, a body of water rendered famous in Dr. Drummond's doleful ballad, "The Wreck of the Julie Plante", a legend with a moral:

"Now all good wood scow sailor man
Tak' warning by dat storm
An' go an' marry some nice French girl
An' leev on wan beeg farm.
De win' can blow lak' hurricane
An' s'pose she blow some more,
You can't get drown on Lac St-Pierre
So long you stay on shore."

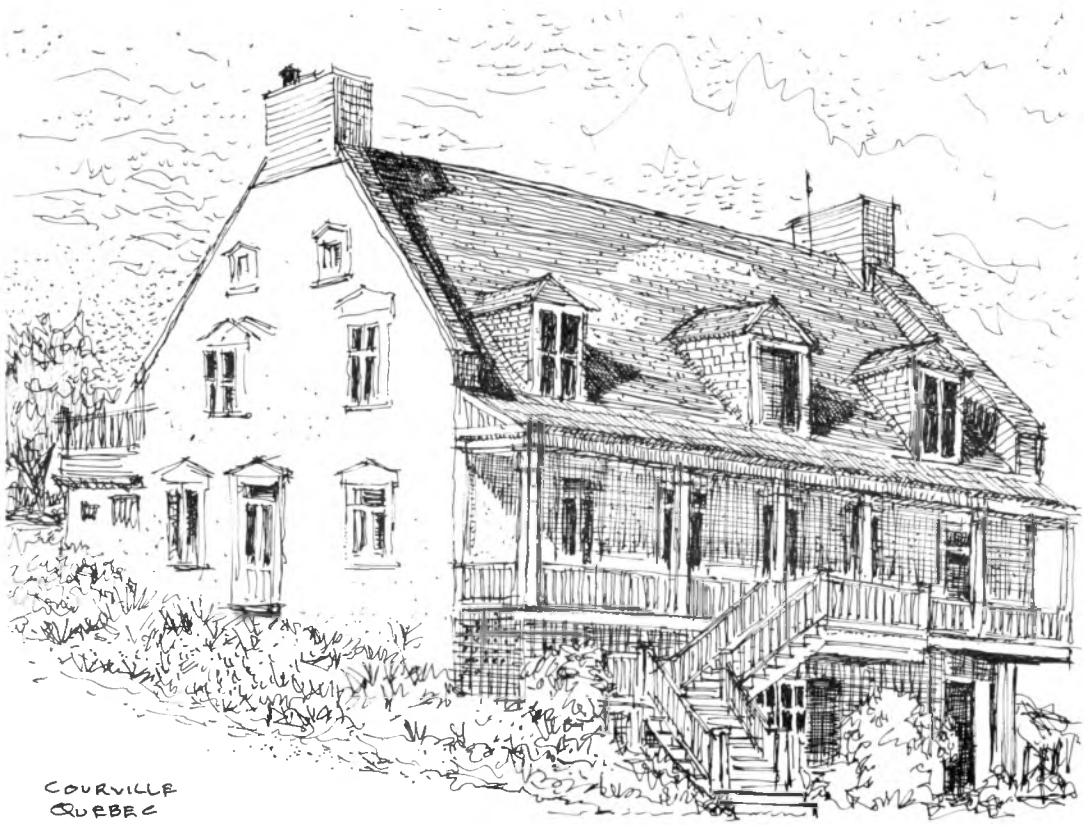
A bridge leads over the Nicolet River, and Nicolet, a small town and a religious and educational center, appears dominated by a rugged block-like building with central pedimented block and wings, built of tweed-like field-stone with tall French windows and steep-hipped metal-covered roofs. You descend from the conveyance and stiffly walk through the endless wide corridors. Panelled walls with deep window embrasures are lined with a continuous row of portraits, distinguished graduates, worthies of yesterday, formerly eminent in law, education or church. You climb the creaking stairs with awe, watched all the while by enframed power and dignity of the past.

Behind the seminary is a new church, resplendently vulgar and you avert your gaze and head for the ferry leading to Trois-Rivières. The city is bubbling with excitement, but as it is dark and late you hurry forward along the North Shore past the stone mansions and turrets towards Québec.

The lights of Québec sparkle against a dark hill, and overhead fireworks throw cascades of dazzling color and light. Crowds are leaving the fair grounds.

St.-Siméon above the Saguenay on the St. Lawrence. GILL

La Malbaie. HOPKINS



Une habitation canadienne—Courville, Québec on the old Beauport road. WILSON

Traffic thickens, thins and you are driving along the old Beauport Road, with Québec behind you. Hold on! You have missed Québec, turn back, and penetrate deeper into the streets, keep on below the fortifications, along St-Paul and St-Pierre, and here is the little square at the foot of the ramparts with Notre-Dame-de-la-Victoire at one end and the Hotel Louis-XIV at the other, and right in the center, a bust of "Le Roi Soleil" himself. Into the front office, arrange everything with the desk clerk and up a shaky elevator to an internal bedroom looking out onto an amazing enclosed court with glass top-light above.

In the morning everything is bright and sparkling and after a flurry through the streets, and a substantial but good, cheap meal in the Louis-XIV, you do not start along the new Route 15 which speeds through motels along the shore, but you take the old Beauport Road which lies some distance back.

From Beauport to Courville, the road shuttles back and forth between the old house fronts, set close together like loose shingles at angles to the road. Roofs are steep and decisive with curved bell-casts at the eaves, and the walls, "bâtis en pierre des champs blanchie au lait de chaux" have a thick crumbly white texture in which are set tall French windows of classic proportions. Usually the land falls away on the south side of the road so that the houses, low-fronted on the road, are tall and balconied on the southern exposure.

Past Courville, over the Montmorency River, the mountains rise steeply on the left while on the right the land, with its 18th century farm houses, falls opulently down in great swells to the St. Lawrence.

You hasten onwards through villages and fields, by parish churches and houses, twisting and turning, but at Château-Richer, high up over a steep escarpment, appears the Gibbsian steeple of the village church, and you take the almost impossible hill that leads to the small plateau where the dignified old church and long, white and blue farmhouse-like presbytery lord it over the little village and the immense valley. The whole area, immediately in front of the church, is now levelled and smoothed with asphalt, while to one side, fortunately not close by, lies a new, expensive, harsh and unsympathetic school in decadent modern style. The church was designed by François-Xavier Berlinguet, a late nineteenth century builder and architect, a follower of Gibbs, but a son of a wood-carver, sculptor and builder and a pupil of Thomas Baillargé, architect, sculptor and painter, who was a son of François Baillargé, architect, painter and sculptor, who was a son of Jean Baillargé, carpenter and sculptor, born in France, 1726, arrived in "Nouvelle-France" 1741. Hence, although the Church of Château-Richer was built in 1866, its line of development goes back much further.

Past Château-Richer to Ste-Anne-de-Beaupré you continue on a road which moves up and down, to and fro, amid bosky glades with views here and there through the trees of the new raw and busy highway near the river, seemingly separated from the old road not by a comparatively short distance, but by years. You can buy bread, home-cooked in outdoor habitant ovens, local weavings, sheep-skins dyed in brilliant colors or even rugs with garish designs depicting camels, dromedaries and turgid views of the East, perhaps distributed to the habitant road merchants or vendors by Levantine salesmen.

Tiny French-Canadian houses appear in continuous shuffling rows and you drive through the narrow streets to the square in front of the large, heavy, but well-built Romanesky Basilica of Ste-Anne-de-Beaupré, a pilgrimage center and an impressively bombastic building. To one side, on the slope of the escarpment, is a small commemorative chapel crowned by an old French two-lantern belfry formerly belonging to the parish church, built at the end of the seventeenth century. You climb the stairs and enter, inside are the famous ex-voto paintings, perhaps the earliest Canadian paintings which, religious in theme, give thanks for safe journeys and ventures and depict stormy scenes and shipwrecks in a style simple, but sincere. An ancient altar is gorgeously carved and enlivened with white and gold. On a tall stone shaft in front of the chapel by the side of the road is a graceful gilded statue of the Virgin Mary, carved and signed by Jobin, the last of the old school of wood carvers.

You gaze round at the little town on the flat, narrow shelf between the escarpment and the river

and wander down the street past the hotels with their French silhouette of mansard roofs and multi-storeyed, balconied fronts, all painted up and glistening in sharp color. Off the sidewalk are restaurants, American in style, perhaps, but with a difference, resplendent in plastic, glass and metal, in a flashy Neo-kitchen style complete with rubber plants and an aroma of "Essence of Pine", wafted through the air from unknown recesses. Charming waitresses with the large, dark, soft eyes for which "les Québecoises" are famous, serve food demurely to weary pilgrims.

From Ste-Anne to Baie-St-Paul you take the principal highway which leads back from the river through forested mountains. The mountains climb higher and higher and suddenly you are on the edge of a vast amphitheatre surrounding a flat valley plain set in soft-shouldered hills.

Northwards, mountain chains rise in high blue peaks beyond the narrower valleys. On the flat plain the rivière du Gouffre flows lazily through the town and the fields around.

You are now high up on a fold of la montagne de la Chaperone, an enormous mountain at the eastern mouth of the valley, overlooking the bay, with the flat silhouette of Île-aux-Coudres beyond. From the trees and houses of the town perk up the shining silver spires and domes of l'hôspice des Petits-Franciscains-de-Marie.

You swoop down the mountainside to Baie-St-Paul, which, student-artists say, has a population of 8,000; 7,000 girls and 1,000 boys. One cannot vouch for these figures, nor can one guarantee that it is a fact that Baie-St-Paul has twenty girls for one boy. There are, however, in this town at least one hundred and twenty-five Simard families and one hundred and ten Tremblays. The Bouchards and the Côtés are not far behind. These are a sturdy, healthy, good-looking people of prolific tendencies. Families have been known with twenty-two children.

You proceed along rue St-Jean-Baptiste, the principal street, past the central square or common on which stands the church, now gutted down to the fieldstone and undergoing complete repair and restoration. Two sides of the square are occupied by the presbytery, various schools and other church affiliates, while on the other sides are shops and new commerce, such as a "pharmacie" and cinema. Just off the square is the house of an artist, with a large color-daubed palette as a sign, on which the name Yvonne Bolduc and the word "sculpteur" is lettered. Nearby is the Café Moderne, a restaurant equipped with the latest in high-speed food preparation gadgetry and with the customary decor, fortunately reasonably restrained. Within, a small group of able-bodied young men are constantly to be found as permanent customers.

Further along rue St-Jean-Baptiste at the corner of a small street, rue Clarence, is a stone cairn with bronze plaque to the memory of Clarence Gagnon, a

L'hospice from rue St.-Jean-Baptiste, Baie-St-Paul. WILSON

Québec painter, who was inspired by the life and forms of the Baie-St-Paul region of Charlevoix County. Beside the memorial is a gateway which leads to the studio home of René Richard, a contemporary painter of the North Shore country. The house is set in a large garden with bright flowers hemmed in with dark spruce trees, and on a terrace table near the house, an immense bouquet of fresh-picked late blossoming flowers is placed every sunny day.

The town affords three hotels, the Auberge Baie-St-Paul and the Hôtel Morin within the town, while outside, near the mouth of the river and the wharf, and close by the sandy beaches along the bay is the Hôtel Belle Plage.

You choose your shelter and your dining-room according to your means, and explore the town with folding stool, brushes, color, pencils, pens, ink and sketch-books in a ruck-sack on your back and a large brown-paper covered roll or portfolio under your arm.

Rue St-Jean-Baptiste goes straight off the north side of the square, but runs in a wide arc southwards towards the railway station where the houses taper off to allow the road to continue beside the river to a wharf projecting into the bay. When the tide is out, acres of shining mud and stones and green aquatic vegetation are exposed and boats lie useless on their sides. Tide in and the river is full to the brim. Either way ducks ride the wavelets of the river or seagulls flash in the sun. Houses and their balconies are close to the street, right up to the edge of the narrow sidewalk. You can squat on steps or perch on railings and scan the street scene composed of deep-curved mansard roof eaves, shadowed, colonnaded balconies, fancy balustrades, window shutters and bright uninhibited colors.

On the east side of the tea-red river is rue St-Joseph, a protected and mellow old street, and an interesting panorama of houses ranging from old white-washed squared-log cabins to sturdy bell-eaved and swoop-gabled mansards or two-storeyed mansions with pavilion roofs of delicately curved silhouette, wide eaves, Chinese-like in form. Balconies are ornamented and enlivened with boldly embroidered fretworks, knick-knacks and corner braces. The wooden houses are protected and decorated with fresh paint, white with mauve trimmings, bright green with vermilion accents, chrome yellow with Prussian blue or the latest in renovating materials are used to refurbish old houses. Striated, random-edged asbestos shingles or French diamond-pattern shingles can be seen in pale pinks and dusty blues. Corner beads are in stamped-textured aluminum and new roofs are covered in light vee-corrugated sheets and wooden cornices sheathed with patiently shaped and elaborated new-metal cornices. Seen against the sky, or the green mountains, are wires, transformers, poles, lights, Coke signs, red trucks, bright sweaters on swaying rocking chairs, cheerful young children, nuns in black, schoolboys with dark blue jackets and school badges, girls in dark-blue or pale-gray uniforms with white shirts, strolling priests outside a school. Clear patterns, bold forms and bright colors image Baie-St-Paul in rich blazonry, a display of figures following an heraldic code.

You are now free to go up and down the sunny valley, past the glittering farms, towards the big blue mountains. You can skirt the tree-covered hills and look over wide horizons of land and water. You can explore freshets, brooks and mountain cascades or cut round the mountain to Petite-Rivière, a different world of jumbled forms and wide-spread serenities.

You can paint the simple intimacies of rue Ste-Angèle, off rue St-Jean-Baptiste, or sit on a still-damp sand bank and paint the waters of the rivière du Gouffre purling over rocks, and swirling in cascades or reflecting dark shadows in still pools.

Or you can leave the land of the Simards, Tremblays, Bouchards and Côtés, and head for the country of the Bergerons, the Harveys and the Warrens, although for that matter you will find some Tremblays as well as many others. The old road that leads through Les Eboulements, St-Iréné, Pointe-au-Pic and La Malbaie, or "Murray Bay", will take you there, past cloud-top views and proud villages and as you find that this land is also the land of heart's desire, you decide then and there that when another sketching school arrives, this is where it will be.

And as poetry is more powerful than narrative, let Paul Boudreau, the poet of McGill's Sketching School 1963, take over with his song.

"L'œil ouvert, le soleil dedans,
Les champs, les monts, l'herbe et la pucelle,
L'abdomen contre le soleil,
Et, toi, là derrière ma tête.
"Le bleu ombragé de ton sein,
Ton front encore humide d'amour
Que jamais plus la mouette ne baisera,
Jamais plus, toi et moi.
Sagacité du destin.
Affreuse mièvrerie.
"De l'herbe la finesse,
Des routes l'agitation,
De la nature entière la paix de douceur,
Ta nuque je parerai.
Mais le vallon m'étourdit l'oreille,
Bouscule la luminosité de ton épaule,
Que jamais plus la verdeur des prés
N'éclabousse ma mémoire.
"Il n'aurait fallu qu'un moment de plus
Pour que la nuit ravisse,
A tes cheveux,
Sur le sable rougi de braises,
Le cristallin des étoiles.
"Que revienne donc s'inscrire sur ma poitrine,
Graphisme d'or,
L'empire du soleil,
La sinuosité des eaux,
La courbe de ton corps.
Que sous mes pas, l'herbe froissée,
Garde souvenance, enfin,
Du soleil dedans mon œil,
Clôs."

Gulls and waves. WILSON

"With eye open,
Let the sunlight pierce through
To the fields, the mountains,
To all the greenery surrounding,
You, fair maiden,
There, 'neath my spirit.
"Yet, the valley dazzles my ear,
Disturbs the luminosity of your shoulder,
Never again shall the green fields
Haunt my vision.
It would have taken but a moment
For the night to ravish,
Of your hair,
There upon the redness of the sands,
The crystalline shadow of the stars.
"May the grass,
Soiled 'neath my feet,
In warm memory hold
The burning rays of my eyes,
Closed."

Paul Boudreau

Diary of a Street

by Bruce MacInnes
Information Division, C.M.H.C.

Just prior to his death, Max Baer, the one time heavyweight champion and the all time jester of boxing was stricken with a heart attack while alone in his hotel room. He managed to reach the phone, call the desk and request medical assistance. The room clerk advised he would send the house doctor immediately, but the to-the-end irrepressible Maxie gasped, he did not need a house doctor what he required was a people doctor.

People doctors are much in demand these days, but unfortunately we do not make enough use of our house doctors. There are some men available with an eye for the dormant charm of older dwellings and the ability to re-vitalize the dignity they once possessed. Architect David Molesworth is one of these.

Just east of Park Road in Toronto, two blocks from Yonge Street, is a quiet residential area of 36 houses named Collier Street. Two blocks to the south, Bloor Street carries on its rush, rush 24-hour schedule, but to the north Collier overlooks a ravine shaded by large poplar trees which give an air of calmness to the little dead-end street. Most of the narrow semi-detached houses are more than 75 years old and have witnessed the growth of one of Canada's great cities.

Now surrounded by commerce, the street has gone through all phases of deterioration generally associated with this encroachment. From a once prosperous and sedate residential neighborhood, it has known the shady ladies, the bootleggers, the assorted characters—Gordon Arnold Lonsdale the

suspected master spy in Britain's atomic submarine espionage case was a boarder on Collier Street—and then arrived at the rooming house stage, generally the finale before the disappearance of the residential capacity.

In 1955, Mr. and Mrs. Molesworth ended their search for a town house which would be as satisfying to them as their previous apartment in a London mews. They had just returned from two years abroad where they worked and pursued post-graduate studies and were ready to settle in Toronto. Even in its run-down state, Mr. Molesworth recognized the latent character of Collier Street and purchased No. 156, the last house on the north side. It is one of the few free standing houses in the area and in the words of Architect Molesworth boasted the principal requisites before remodelling—solid joists and a good shell.

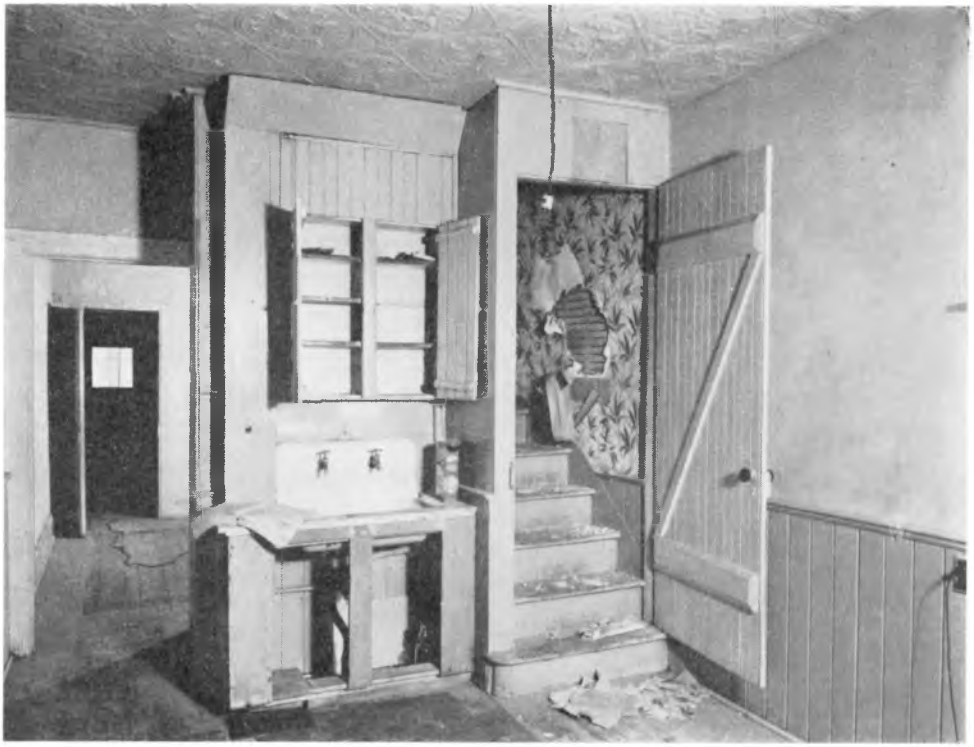
This marked the beginning of the rejuvenation of Collier Street and a second life for the old houses. A comparison of the 1963 voters' lists with that of 1957 in the rooming house era shows a startling change in the occupations of the residents. Living now in the short block are engineers, a neuro-surgeon, a physician, teachers, university professors, writers, an editor, actors, industrial designers, a psychiatrist, a psychologist, social workers, an architect and others.

Unlike Mr. Molesworth's home, most of the houses on Collier Street are semi-detached, very narrow and invariably without a driveway. Fortunately, at the rear of the south side, there is a laneway which provides access for parking. A look at the renovation accomplished on one of the houses of this type will present a better idea of the problems involved. Number 26 on the south side owned by Professor J. B. Milner is an excellent example. The house is but 14′ wide on a 14′9″ lot.

Professor Milner, on the staff of the University of Toronto, had been living in a lovely suburban home, but was disenchanted with the two-hour travelling time consumed each day. The downtown area of the city was very alluring with its cultural life and access to the University. When he had seen the setting of Mr. Molesworth's home, the suburbs lost a resident.

It is a semi-detached house and like most of its neighbors is devoid of side yards. Before renovation, the lower floor was a jumble of passages and small rooms, but working from a plan provided by Mr. Molesworth, as were the other renovations on the street, the transformation is all but unbelievable. By eliminating walls, dropping a floor and re-orienting the stairway, a feeling of spaciousness is somehow achieved. The first floor consists of a front living room with a

The removal of the old porches and a bright paint job give a lighter atmosphere to some of the houses on the street.



How the view has changed. Professor Milner's house before and after renovation. Note the retention of the metal ceiling.

The cozy front living room. A favorite gathering place for informal discussions with the students.

fireplace, a dining area, kitchen and a rear living room. This sunken room has a doorway onto the patio and is described by Mrs. Milner as their summer living area.

The front door is now adorned with Gerry Tooke's "St. Francis and the Bird" in stained glass and the entrance hall is given great individuality by papering the walls with a black and white blow-up of the area planning map. Lovely old Dutch tiles, once hidden by layers of paint, surround the fireplace in the front living-room.

The removal of some of the walls on the first floor has opened a view from the front door through the whole length of the house out the rear picture window. This gives a sweep straight down Church Street with its motorcars, buses and trolleys and hurrying pedestrians. But to get this glimpse of the city your eye rests on the little oasis in the rear of the house. The garden, conforming to the scant breadth of the house, has a stone patio with wide old wooden butter bowls and big earthen pots overflowing with bright-hued flowers. And embedded in the crushed-stone carport, separated from the patio by screened fencing, are plantings of slender-stalked broadleaved evergreens and roses which give a formal garden effect in miniature.

The second floor has a master bedroom, an astonishing 13′ x 13′, two other bedrooms and a bath. There are two more rooms on the third floor which the Milners use as working dens, but could in other circumstances be additional bedrooms.

It is a lovely home designed for friendly entertaining and is suitable for either a large or small family with a park, schools, shops and theatres nearby. All this and subway transport but a few minutes walk from the door.

It might be appropriate to make the observation

The diminutive patio looking toward the rear from the parking space.

that a complete renovation of this type is no job for the handyman or the week-end carpenter with a skill saw. Before a start is made, there must be a good plan incorporating sound design and executing that plan is a job for professional artisans.

Not all of the homes on the street have undergone complete renovation such as the Milner's, some have had their floor plans reversed with the kitchen where the living room was originally. But many more have spruced up the exterior of their houses by removing the old porches and painting the red brick exteriors white. This finish gives a feeling of coolness in summer and a very cheery atmosphere in winter. Many of the owners have planted slender trees along the front brick walks by embedding them in boxes of earth. The new plantings combined with the original tree growth give a lovely atmosphere to the street.

There is a striking feature that no one who visits the area can overlook. If blight is a contagion by which one run-down building can influence an entire neighborhood, then it is equally valid that the restoration of one structure can act as a catalyst which improve a whole section. The restoration of Collier Street has been accomplished by a group of people who are interested and happy to live in the heart of the city and in order to do this have created a pleasant environment for themselves without any government aid or subsidy.

An operation of this sort requires a lot of hard work and, at times, some misgivings on the part of the new residents. There is no doubt there was considerable financial risk for those who first took the plunge, but that risk would seem to have paid off handsomely. A typical example shows one of the properties purchased for $15,000 with an estimated $10,000 spent on restoration. It is a little difficult to say what the house would bring on the market today, very noticeably none of the new residents are thinking of leaving, but it certainly would be well above the original investment.

Here are some random quotes from an experienced David Molesworth, which may be useful to others who have similar ideas: "If you like to live near the center of the city, it is possible to revive the old seemingly exhausted house to suit modern living and to do over identical houses to suit very different people with varying requirements. You should accept on your street, because they will be to your advantage, the little neighborhood shops that are scattered through some of the areas. You must be willing to work to encourage a change in the by-laws because you feel strongly the area is suitable for residential use." And finally, Mr. Molesworth states, "If you have a large proportion of the residents happy to live in an area it is a more effective protection for that area than any restrictive by-law could possibly be. The intent and attitude of the residents transcends any city authority requirement although these requirements may be a help and an encouragement."

Yes, Collier Street has run the full circle. The ladies of the evening would never recognize their old haunts now. As one of the residents stated to me, "It's disgustingly middle class again." ✦✦✦

Cathédrale de Saint-Boniface, 1908; à l'arrière plan, le collège actuel de Saint-Boniface, le premier a été détruit par un incendie en 1922.

Saint-Boniface — ville bilingue de l'Ouest

par H. Lane

Comment peut-on expliquer la vie et la survivance comme centre de culture française d'une ville de 40,000 habitants, dont moins de la moitié sont d'expression française, et qui vivent dans une agglomération métropolitaine de 500,000 personnes de langue anglaise?

Saint-Boniface, au Manitoba, est considérée comme étant le bastion de la civilisation française dans l'Ouest canadien.

Elle est née d'un acte de foi, puisque c'est par suite d'une pétition signée par des employés de la compagnie du Nord-Ouest et d'une autre pétition appuyée par le Comte de Selkirk, fondateur de la colonie de la Rivière-Rouge, que Monseigneur Plessis envoyait les abbés Provencher et Dumoulin dans les immenses territoires de l'Ouest avec mission d'évangéliser et d'éduquer les Métis et les Indiens.

L'abbé Provencher, dans une de ses lettres, dit qu'il faudrait un autre Boniface pour réussir une telle entreprise. Ce Boniface, il le fut, moins le martyre, se dévouant inlassablement à la tâche; dès son arrivée en 1818, il enseignait dans la modeste maison-chapelle et de ce fait affirmait la présence française qui depuis de la Vérendrye, le découvreur de l'Ouest, et de tous les traiteurs canadiens-français, s'était répandue à travers le pays; nombreux étaient les lacs et les rivières et tous les accidents géographiques qui portaient de beaux noms français.

C'est sur les lieux mêmes où fut établie la mission de Saint-Boniface que se fit en 1812, le premier acte officiel dans les deux langues, lorsque Miles McDonnell, gouverneur de la colonie lut la proclamation de la prise de possession de ces territoires par le Comte de Selkirk.

A l'arrivée des colons de Selkirk, il y avait déjà un bon nombre de Canadiens français et de Métis dans les environs, parmi lesquels mentionnons les noms de Jean-Baptiste Lagimodière et de sa femme Marie-Anne Gaboury, la première femme blanche à venir s'y installer et y élever une famille nombreuse.

Le grand évêque qu'était devenu Monseigneur Provencher, usé par les travaux ardus d'une longue vie de missionnaire, mourut en 1853, laissant derrière lui une cathédrale, un évêché et ses dépendances, un couvent des Sœurs-de-la-Charité, plusieurs réalisations qui faisaient l'orgueil du pays.

Les Sœurs-de-la-Charité (Sœurs Grises) étaient arrivées en 1844; les quatre religieuses ayant fait le

Saint-Boniface vers 1900 montrant le vieil évêché ainsi que l'évêché temporaire (à droite) qui a été démoli après 102 ans d'existence.

long et périlleux voyage en canot de Montréal à Saint-Boniface.

A Monseigneur Provencher succéda Monseigneur Taché, son digne collaborateur qui connaissait si bien le pays pour l'avoir parcouru maintes fois. Saint-Boniface croissait lentement et ses édifices religieux faisaient l'orgueil de ses habitants; le poète américain Whittier chantait dans un poème intitulé "The Red River Voyageur" la beauté de sa cathédrale aux tours jumelles et le son argentin de ses cloches.

Il a fallu la foi d'un Boniface lorsque, revenant d'une tournée de mission, Monseigneur Taché s'agenouillait dans les cendres de sa cathédrale et de son évêché; tout y avait passé et il fallait recommencer à neuf; le vaillant évêque partit en voyage pour rassembler les aumônes nécessaires à la reconstruction; on érigea un évêché temporaire qui fut démoli l'an dernier (1963) après avoir servi à nombre d'usages; en 1864 un nouvel évêché en pierre du pays était achevé (on célebrera cette année le centenaire de cette vénérable maison).

Les pourparlers en vue de la Confédération dans l'Est du Canada et l'immigration d'un grand nombre de Canadiens anglais de l'Ontario préparèrent les esprits pour le soulèvement de 1869 lorsque Louis Riel défendit le droit des siens aux terres qu'ils occupaient depuis longtemps. Tous les historiens de marque le reconnaissent aujourd'hui comme le Père du Manitoba, puisqu'il fut le président du Gouvernement provisoire de 1870 et que ses demandes au Gouvernement d'Ottawa furent presque toutes incorporées dans l'Acte du Manitoba.

Il y eut alors une vague d'immigration de Canadiens français du Québec et des Etats-Unis qui vinrent s'établir à Saint-Boniface ou dans d'autres petits villages de la Rivière-Rouge, mais leur nombre n'était pas suffisant pour garder l'équilibre entre les deux races. Mgr Taché lutta de toutes ses forces contre certaines lois iniques et son successeur Mgr Langevin revendiqua pendant tout son épiscopat, les droits scolaires des Canadiens français et des catholiques.

C'est en 1916, à la suite de l'application sévère des lois scolaires que se forma "l'Association des Canadiens français du Manitoba" qui est toujours sur la brèche et qui a beaucoup fait pour obtenir des modifications officieuses et officielles à ces lois. Nous ne pouvons évidemment faire ici toute l'histoire de Saint-Boniface et des courageux laïcs qui ont si bien secondé les travaux des évêques; une visite dans le cimetière de la cathédrale est une promenade dans l'histoire.

Le Saint-Boniface d'aujourd'hui a beaucoup changé. D'une superficie de 18.9 milles carrés, on y trouve 8,126 maisons, 434 établissements commerciaux, 302 édifices industriels et 44 fermes; l'évaluation immobilière se chiffre par $52,401,000. C'est à Saint-Boniface que sont situées les plus grandes cours à bestiaux de l'Empire britannique et les deuxièmes du monde; on y voit aussi les grands établissements de la Swift et de la Canada Packers, la cie Burns achève de construire une installation de $4,000,000. Les chemins de fer nationaux viennent d'ouvrir les cours de triage

Une photo presque identique à celle de 1900 qui montre les changements survenus dans la vieille partie de Saint-Boniface.

Symington au coût de 24 millions.

Saint-Boniface est le siège d'un collège classique dirigé par les Pères Jésuites qui sont arrivés au pays en 1885 et en plus de nombreuses maisons d'enseignement, on y compte un grand nombre d'églises catholiques tant françaises qu'anglaises ainsi que des églises belge, polonaise, ukrainienne; les diverses églises protestantes y sont bien représentées et nous comptons même des adhérents à la croyance du prophète Bahai.

Les vieilles maisons sont presque toutes disparues et celles qui ont survécu ont été rénovées; disparues les galeries et les dentelles de bois, pour faire place à un modernisme plus fonctionnel.

Bien que les Canadiens français ne composent pas la moitié de la population, c'est avec un vote majoritaire des Canadiens français qu'un maire écossais fut élu pendant nombre d'années; M. Jos-G. VanBelleghem, belge d'expression française, occupa le même poste avec distinction pour plusieurs mandats et depuis quatre ans M. Joseph-Philippe Guay, qui a été élu avec une grande majorité même dans les secteurs anglais, préside avec dynamisme au progrès de notre ville.

Saint-Boniface s'enorgueillit de ses nombreuses réalisations culturelles; mentionnons seulement le nom de quelques associations qui contribuent à sa renommée; le Cercle Molière, le Cercle Ouvrier, la Société Historique et son Musée, le Club Belge, et nombre d'autres sociétés, religieuses, politiques et sportives.

Saint-Boniface qui a bénéficié de l'immigration du Québec, exporte maintenant ses talents tant dans l'Est que dans l'Ouest, parce qu'à cause de leur formation bilingue ils sont à l'aise dans tout le Canada.

Îlot de résistance voué à disparaître disait quelqu'un dernièrement dans une discussion à la télévision; nous ne le croyons pas, puisque depuis près de 150 ans, Saint-Boniface est un centre de rayonnement où deux cultures vivent non seulement côte à côte mais s'entremêlent dans le développement d'une nation canadienne. Le magazine McLean publiait récemment une carte humoristique du Canada de demain où dans une immense république des Prairies, Saint-Boniface était identifiée comme le protectorat français de l'Ouest.

Témoignage vivant de la présence française dans l'Ouest depuis de La Vérendrye, Saint-Boniface continuera sans doute sa double mission religieuse et civilisatrice. ✦✦✦

Monsieur H. Lane naquit à St-Boniface et fit ses études à Ste-Anne-des-Chênes et au collège de St-Boniface. Il est présentement le gérant de la succursale postale de St-Boniface et membre de la "Manitoba Historical and Scientific Society" ainsi que de la Société Historique de St-Boniface. Il est un photographe amateur; les photos qui illustrent le présent article ont été prises et développées par lui-même. Il est un collaborateur attitré du journal La Liberté et le Patriote.

Bush Camp of the Austin-Nicholson Lumber Company (1919).

NICHOLSON

by G. Bucksar

Routes of communication have long presented the major problem in pushing back the Canadian frontier. In the fringe areas transportation is life and road and rail development have been instrumental in opening the country's natural resources. In an area as large as Canada, progress has often been impeded by a lack of national interest in transport facilities.

However, merely to associate growth and development with routes of communication is not enough. Development often occurs in stages with each stage not always complementary to the previous one. Men of various skills and trades are needed to push the rails and graveled surfaces forward; investors, suppliers, and sub-contractors are also needed to keep the wheels rolling; and men of vision are necessary to give the "thing" substance. With its tremendous undeveloped areas, this is perhaps truer in Canada than in any other country in the world.

In tracing the development of railway enterprise in Canada, it can quickly be seen that the railways are the product of the people themselves. Foreign capital aided growth and occasionally foreign difficulties hindered growth, but the end product was Canadian. Without men who were willing to gamble on the future of the country, the frontier could have remained static until the early 20th century. The gambling spirit fortunately prevailed and the populace spilled out onto the frontier, to the prairies and beyond to settle the length and breadth of the country. These early settlers opened many areas which later aided in developing the railway era.

In 1825, the foundation of railway transportation was laid with the opening of the Stockton and Darlington Railway in England. By 1845, a number of Canadians had applied for railway charters. It is not difficult to understand the possibilities that these pioneers saw in steam locomotion.

Access to world markets was limited by the very size of the country. The orientation of trade to England and the East hindered development of the frontier especially on the western plains and in the central portion. The Great Plains, Rocky Mountains, and rugged topography of the Great Lakes region created a formidable barrier against the lucrative Asian trade and further created another barrier against the unification of the country.

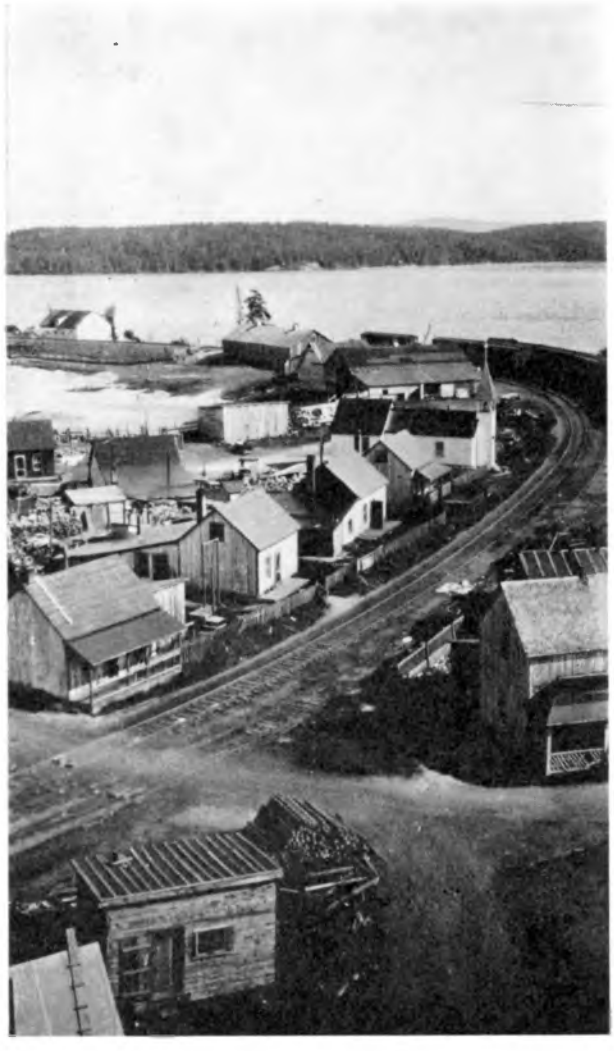
Using the broadaxe to shape railway ties.

With the exception of the St. Lawrence, the major rivers flow north and south and were frozen during a good portion of the year, thus limiting trade in that direction. Last, the thin ribboned ecumene of Canadian settlements in the south were bounded by the not-always friendly Americans. As a consequence of the last point, railways were oriented to serve Canada rather than to stimulate trade with the United States.

By 1850, there was less than 55 miles of railway in the entire country, but by 1867 nearly 2,500 miles was in operation and within the forty-year period that followed the mileage increased by some tenfold.

By 1883, the Canadian Railway officials began extensive plans to construct the railway across the Lake Superior wilderness. A careful examination of the possible sites showed the most direct route to Fort William lay just north of the present day Mississagi Game Preserve. After much deliberation, the present townsite of Chapleau was chosen to be a main divisional point of the CPR. It was found that the general area contained abundant water resources, favorable topography, and a generous supply of timber for both wood fuels and railway ties. In addition to these factors, the waterways provided alternate means of local transportation, a factor which would aid later development of the area.

Chapleau's main reason for being was to service the railway and as a result it was established as a



"And the railway runs through the middle of the town". View of a section of Nicholson.

company town. In 1885, less than two years after its founding, Chapleau was destroyed by fire and the destruction brought about many changes. The company town atmosphere no longer prevailed and the town gained its own individuality. As a result of this change, independent merchants were attracted to the townsite, among these was James McNeice Austin, who opened the first general store in Chapleau.

As the civilizing rails spread westward, Austin's business venture proved profitable. Other merchants wishing to take advantage of the opportunity were attracted to Chapleau offering his general store a degree of competition. Perhaps it was this competition or his adventurous spirit which led him to expand his interest.

In his dealings with the railway officials, he found

Supply warehouse on the lake where the tote boats were loaded for shipment to the camp. The white building in the background is the Anglican Church.

that there was a need in the railway operations for suppliers of woods products. At this time, there was no surplus of jobbers supplying for the railway. As a result, Austin began his lumbering career by grub-staking local French-Canadian inhabitants to supply axe-hewn railway ties. He continued as a general contractor for the railway until 1901. Sometime during this period Austin met or had dealings with G. B. Nicholson, a fireman on the CPR. Their friendship bloomed into a partnership, when in 1901 they joined to form the Austin and Nicholson Lumber Company.

The new partnership helped Austin to acquire the cutting rights to some 2,000 square miles of land along the railway beginning about 25 miles west of Chapleau. Although the headquarters for the woods operations remained in Chapleau for some time, the partners began the construction of a town along the CPR line. A horn-shaped peninsula just north of the main line on Windermere Lake was selected for the proposed townsite and mill. The lake provided both a constant supply of fresh water and adequate means of transportation to the adjacent cutting areas. The major emphasis of the entire operation at this stage was the supplying of axe-hewn ties to the railway.

Expansion during the first years of operation proved to be slow, major growth of the town did not occur until 1909. With the construction of the CNR to the north of Chapleau and Nicholson, the Austin-Nicholson Lumber Company became a chief hauler and supplier for that railway.

Austin returned to his native Ottawa Valley and personally recruited hundreds of teams and drivers for the new phase of his operations and as a result, the population of his town spiraled virtually overnight. In addition to the mill and the bunkhouses, Nicholson could boast a population of 800 with churches, 55 houses, a school, a theatre, and a pool-room. The town at this time, was comparable in size to Chapleau itself. It was at this point Austin set another precedent. He began rotating his hauling stock. The horses were sent back to the Ottawa Valley for grazing during alternate periods of the year. Two hundred and fifty animals were rotated in each shipment providing a very satisfactory operation.

Toting logs with horses near Nicholson (1915). and with the Linn Tractor (1924). This mechanical innovation revolutionized the industry.

Below, the mill at Nicholson (1920).

PHOTOS ARE FROM THE COLLECTIONS OF MESSRS. DORMAN, NICHOLSON; VINCE CRICHTON, CHAPLEAU; AND WILLIAM AUSTIN, COLLINGWOOD.

Between World War I and 1929, the firm expanded rapidly. Nicholson, which started as a satellite town of Chapleau, began to spread over the landscape. The mill at Nicholson was unable to keep pace with production demands and four other millsites were surveyed and opened during this period. The five sawmills (Sultan, Devon, Nicholson, Dalton, and White River) operated 24 hours a day to keep up with the ever-increasing demands. In all, 60 bush camps were operated each winter, employing nearly 6,000 men and by 1924 maximum production was reached. A record which has never been equalled was set with the production of 2.5 million railway ties. This is believed to be the largest output in the British Commonwealth of Nations and possibly the world.

It was during this period that James McNeice Austin died (1922), too soon to see maximum production become a reality, but soon enough to see his town grow and prosper. His pioneering and methods of operation led his followers to establish other firsts in the industry.

In 1923, the now prosperous company invested $10,000 in the purchase of a Linn tractor. This was believed to have been the first mechanized logging operation in North America. The purchase of the "Linn" led to the rerigging of all sleighs for use with the tractor and constituted a large capital outlay. The innovation proved to be so successful that, in the following year, the company purchased three Fordson tractors to be used for toting only. The day of the horse in logging operations was numbered.

As the railway demands steadily declined after this prosperous period, the Company began to supply timber to Inco for mining purposes and pulpwood to the paper manufacturers. For years after the Company supplied 30% of the total pulp used at the Sault Ste. Marie mill.

The decline of Nicholson began with a fire which destroyed the mill in 1933. After a close evaluation of the situation, especially the depressed economic conditions, all milling was transferred to the Dalton mill. Utilizing the waters of Windermere Lake, it was an easy process to transfer the supplies from Nicholson. Again, lumber became more important. Dalton became a storehouse for commercial grade wholesale lumber. Disaster seemed to continuously plague the company. In 1934 the entire mill and yard containing 50 million board feet were destroyed by fire. The mill was later rebuilt, but never regained former importance. As the large stands of merchantable timber became depleted in the south and the east of the company's areas, the firm moved its headquarters to Bertrand near White River. With modern logging methods coming into use the company was able to go back and salvage some of the former areas, but Nicholson as a town was doomed.

William Austin, son of the founder, maintained several houses for summer cottages, but the rest of the town fell to disuse. Many buildings were sold outright ($25) for the lumber. The structures that remain are bare save for the memories of the past. The school and churches have been vandalized. Even the church bell which was a mark of pride among the settlers of Nicholson has been removed from the steeple. Of the 800 population, only 10 permanent settlers are there today. Only two remember the town they called Nicholson, the town that railway ties and a dream built.

Today the scenery and topography of the Pre-Cambrian dike area north of Lake Superior probably reflects boredom and monotony to the average railway traveler. Little if any thought is given to the heritage left by the pioneers. As the tiny abandoned towns are quickly sighted and lost from view, the traveler has little time to consider any reason for their possible existence and, as a result, a great deal of Canadian history is lost. ✦✦✦

Professor Bucksar began his writing career as a battalion historian in an American combat engineer unit during World War II where he served as a M/Sgt. After the Korean War he entered Eastern Michigan University where he received B. Science and M.A. (Geography) Degrees. He took Advanced Graduate Work at the University of Michigan and is now an Assistant Professor in the Geography Department, West Chester State College, Penna. His chief interest is in the historical (developmental) geography of Canadian towns. The May-June 1963 Habitat carried an article by Professor Bucksar on Chapleau.

Outstanding 72-foot mural by artist Kenneth Lochhead "Flight and its Allegories" in the Mezzanine of the Terminal Building at Gander.

CANADA'S AIRPORTS

Canada, stretching more than three thousand miles from the Atlantic to the Pacific and more than two thousand seven hundred miles from Windsor to the most northerly arctic weather station on Ellesmere Island, covers a greater land area than any country in the world except Russia.

Unlike many smaller countries, where one major airport for foreign commerce will satisfy, Canada must maintain a large domestic system for the benefit of its own economy. And in the planning of the system, the terminals and fields must be constructed for the future when bigger and faster planes will be flying.

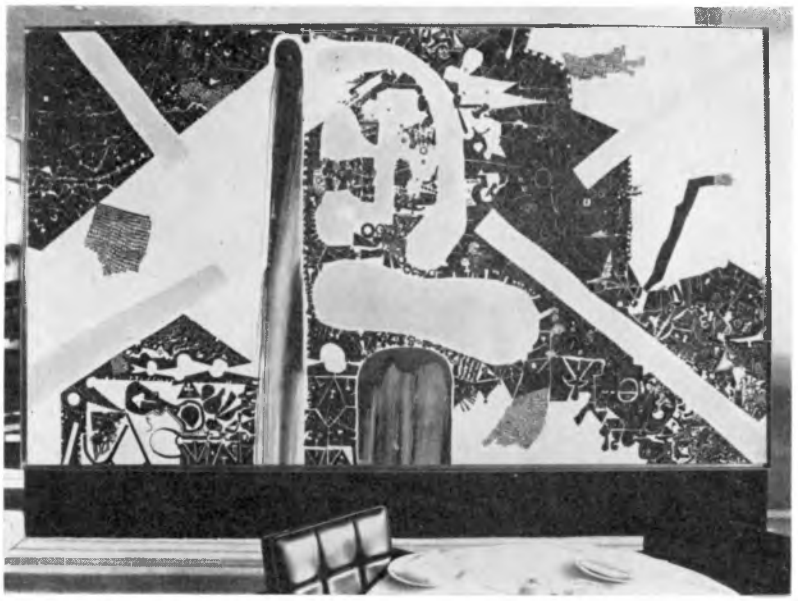
With the completion of the Vancouver terminal in 1967, modern airports will span the country. The three latest aeroquays to open are Toronto, Winnipeg and Edmonton. Gander, Halifax, Montreal, Ottawa and Regina have been in operation for some time and altogether the nine major cross-country airports will represent an investment of $128.5 million giving Canada a magnificent cross-country system.

Aerial view of Montreal International Airport Terminal Building and runways.

Decorative screen "Wings and Fins" by E. B. Cox at Halifax International Airport terminal.

The Regina Airport is municipally owned, but the terminal was built by the Department of Transport.

View of main lobby and exit to aircraft—Ottawa International Airport.



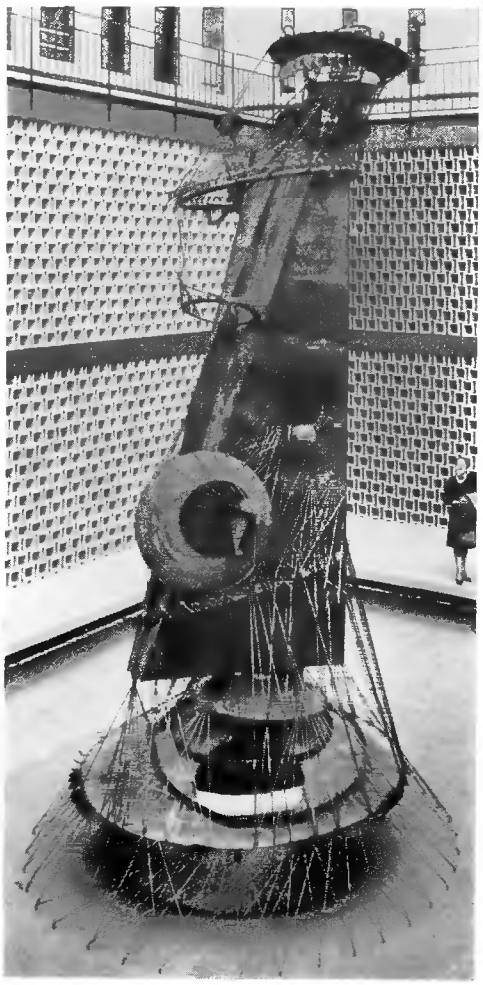
At Toronto's International Airport, a dramatic night photo above, shows entrance to tunnel, foreground, leading to brightly lit circular aeroquay. Seven-storey structure overhead is 2400-car parking garage.

One of Harold Town's murals in main dining room.

Armand Vaillancourt's sculpture in cast bronze in an aeroquay court-yard.

Main concourse in Department of Transport's terminal at Winnipeg International Airport contains 200-feet of ticketing and check-in counters. Luggage is sent to aircraft by conveyors. John Graham's structural mural on the north wall measures 100 by 40 feet and is an assemblage of colored plexiglass and mosaic tiles.

"The Prairies" is the title of this mural by Alfred Pellan, in the foyer of the main dining room. Mounted on a semi circular wall and executed in vibrant color in oil on canvas the mural is 32 feet long and six feet high.



Left, Gerald Gladstone's 28-foot-high sculpture in welded bronze.

Administration building with air traffic control tower rises over the approach road to Edmonton's International Airport.

Quiet elegance reigns in the VIP suite reserved for state dignitaries.

Quiet area off main waiting room.
Mural in background is by Dennis Burton.

PHOTOS ARE COURTESY DEPARTMENT OF TRANSPORT

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 120 screen, copper halftones are by Bomac.

CENTRAL MORTGAGE AND HOUSING CORPORATION

SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT

OTTAWA, CANADA

HABITAT

JANUARY-FEBRUARY, 1964

JANVIER-FÉVRIER, 1964

HABITAT VOLUME 1 NUMBER 7

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class mail. Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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FRONT COVER: *Doc Snider's House by L. L. FitzGerald—1931*
COURTESY OF THE NATIONAL GALLERY OF CANADA, OTTAWA

INSIDE COVER:
Winter in the Woods—NFB.

In an effort to stimulate wood-frame house construction in Britain, Central Mortgage and Housing Corporation, at the request of the Department of Trade and Commerce, has designed and will supervise the construction of six demonstration houses. The houses will be two-storey semi-detached units with three bedrooms. They will conform to NHA design standards and will have gas fired, hot air heating systems. Two of the houses will be built near London, two near Liverpool and two in Edinburgh. The construction will be started this spring.

Last June, a Timber Housing Mission from Great Britain, composed of members of architectural, housing and timber organizations, visited Canada. The Mission was sponsored by the Department of Trade and Commerce and resulted in the decision to construct the six pilot houses. One unit of each semi-detached house will leave a portion of an interior wall unfinished to demonstrate the structural system and dry-wall technique. The six houses will use three exterior finishes, stucco, wood and the more conventional, by British practice, brick. After they have served their purpose as exhibition houses, the units will be turned over to the local British housing authorities for normal occupancy.

As in Canada, each area in Britain has local building regulations which must be adhered to and these require either adaptation of the plans or considerable negotiation to alter. Many deal with plumbing and heating installation, but other problems have been encountered. For instance, does a refrigerator replace the larder normally provided in British construction practices?

CMHC is providing the engineering services of Mr. C. L. Tye to supervise the construction of the houses in Britain and in addition, when the actual construction commences, will supply inspectors. Negotiations are under consideration to erect an additional 200 houses in a suitable low-density area. The houses will be tested for their adaptability to British housing conditions and will show the characteristics and advantages of Canadian wood-frame construction.

✦ ✦ ✦

Canada is richly endowed with water resources. However, the continued discharge of chemical pollutants into our streams is becoming a menace to aquatic life.

CONSERVATION

by Gavin Henderson

What kind of country do we want Canada to be and in what sort of communities do we want to live? These two questions are basically those with which conservation is concerned. Though conservation today is riding a wave of popular enthusiasm this has been accompanied by growing confusion in thought and action. Partly responsible is the negative meaning attached to the word itself which tends to perpetuate a false notion of what conservation is about. Chiefly though, confusion has arisen because of insufficient emphasis on the need for defining fundamental objectives on the part of the "conservationists" themselves.

Conservation is often "explained" by vague and meaningless generalities such as "conservation is the wise use of renewable natural resources", or "conservation is the use of natural resources for the greatest good of the greatest number for the longest possible

time". These expressions so dear to the heart of after-dinner speakers have a high sounding ring but they mean little.

Society has a code of ethics by which citizens may distinguish between "good" behaviour and "bad" as far as their relations with each other are concerned, but we have no such yardstick when it comes to making value judgments about the use of resources. Until we do, decisions will be made on the basis of expediency and the subjective reasoning of those who make them. Many of the decisions will continue to be the wrong decisions.

The attitudes of our society towards land—the land on which we live—are grounded in a tradition that views it simply as a commodity with a price tag attached rather than as what it really is—the essential habitat of man. As a result, the conservation movement up until now has been fighting mostly a rearguard action in the face of one crisis after another. It is a notable fact that most of the significant developments which have taken place in the name of conservation since the movement began around the turn of the century, have either followed on the heels of some major disaster or were initiated because of the imminent threat of disaster. The passing of the Conservation Authorities Act in Ontario in 1946 is a case in point. In spite of the fact that conservationists had long been urging measures to control floods which had been worsening over the years on almost all of the watersheds in the southern part of the Province, action had to await a particularly devastating flood on the Thames River which took a number of lives and did millions of dollars worth of damage to the City of London, Ontario.

The growth of the conservation authority movement has since greatly lessened the chances of a recurrence of major flood damage in Ontario, and many long-standing abuses to the land which contributed to the floods have largely been corrected. However, new and far more crucial problems have arisen to take their place simply because our basic attitudes with regard to land and nature as a whole have not changed. In fact, we have now much less room to manoeuvre in getting ourselves out of difficulty.

These new problems are of a different kind to those with which conservation was concerned earlier. In the past the conservation movement gained a following largely because of the fear of a possible future shortage of some resources as a result of chronic mismanagement. These fears have since proved groundless. As the need has arisen resources management techniques have been improved and applied; also synthetic products are being developed increasingly as substitutes for raw materials for certain uses.

There now seem to be no technological barriers to producing all the food and other raw materials needed for a population very much larger than we have, and as far as food goes, from a considerably smaller acreage. Cost could perhaps eventually be a barrier, but not because of technological deficiencies.

The problems we now face have to do mainly with the kinds of environment we are creating for ourselves as we relentlessly and single-mindedly pursue the goal of an ever higher material standard of living. The word "create", though, is hardly the right word to use for the condition of our environments has so far been determined not by design, but by economic expedients aimed solely at achieving unlimited affluence for unlimited numbers of people.

There has been sound logic for this in the past, but not any more. Environmental changes are taking place at an unprecedented rate because of the social and technological revolution. If these changes are to work for the benefit of man and not to his detriment, as happens now so often, sustaining the quality of human environment has to become a major social objective. Present rates of technological development have shown that the pursuit of affluence alone is a self-defeating goal.

Take the case of the automobile. It would be hard to gauge the contribution of this product of man's ingenuity to the betterment of life since Henry Ford began mass-producing cars, though it is certain that the motor car is fast becoming an uncontrollable monster. The motor vehicle, symbol of progress, is choking and dehumanizing our cities, destroying amenity, poisoning the air we breathe and bringing about, directly and indirectly, all kinds of other un-

Soil erosion represents needless waste of our land resources. Conservation aims at restoring the protective forest cover to prevent such waste.

desirable environmental changes.

The phenomenon of the automobile is not an isolated example of environmental breakdown for want of goals that are valid for the times in which we live. Growing pollution of water resources and of the atmosphere is another. We do all in our power to encourage industrial expansion, but our efforts are pitifully inadequate when it comes to eliminating or at least controlling the great variety of complex chemical pollutants that industry is releasing into the air and into the water in increasing quantity. There is strong evidence of association between some of these pollutants and the growing incidence of certain forms of cancer and nervous disorders.

The massive amounts of pesticides that are now being applied to the land with little or no thought for the long-term environmental consequences may, in the end, turn out to be the greatest folly man has yet perpetrated. What effects these chemicals will have eventually as a result of the changes they are causing in micro-environments, and hence on up through the chain of life to man himself, is simply not known. Rachel Carson in her book Silent Spring did not condemn the use of pesticides as such; she did abhor the widespread use of these poisons without adequate knowledge of their long-range effects on all forms of life, including man.

Our general indifference to environments is reflected, too, in the almost total lack of land use planning, that is, meaningful planning in terms of amenities and outdoor recreational opportunities in the face of urban growth and changes to the landscape generally.

In assessing responsibility for these and other resource problems too often the finger is pointed at industry. But surely, as long as society as a whole pays homage to the goal of ever higher levels of production and consumption, industry cannot be blamed for playing its part. There is a similarity between those who rant at the so-called excesses of industry, while not willing to curb their own appetites for the things which industry produces, and the woman who opposes blood sports, but sees nothing wrong in wearing a leopard-skin coat.

In the early days of the conservation movement many industries could be accused fairly of gross abuse and mismanagement of resources, but seldom is this so today. Most large corporations with a stake in resource development are constantly seeking new ways to improve their management techniques. They recognize this as good business in more ways than one. Some industries, too, are actively engaged in public service programs to promote conservation.

If conservationists have a job to do today the foe they must battle is not greed, characterized by the lumber barons of a bygone era, but the vast ignorance which permeates the whole of society regarding the significance of the relationship between man and his environment. Knowledge is particularly lacking where these relationships are affected by pressures on land and resources by uncontrolled population growth and urban and industrial expansion. What sort of life we may expect to "enjoy" in the future will depend chiefly on how well we learn to comprehend these relationships and how willing we are to apply this knowledge.

In spite of the power man now has to manipulate and change nature in almost any way he chooses, a power that is growing at a frightening rate, few leaders in government, business or finance appreciate the need to even consider either the short or long range environ-

mental consequence of their decisions. This also applies to engineers, economists and planners who play so large a part in the events rapidly reshaping human environments everywhere.

A basic aim of conservation now is to provide insights into man's environment and his living habits through co-ordination of many different disciplines. These include the natural sciences, the social sciences and the humanities, research and education. This is a broad term of reference and a formidable challenge, but we have no alternative but to accept it if there is to be any future worth considering.

What can be done to meet this challenge?

The first thing, and perhaps the hardest of all to do, is to accustom ourselves to the need for new ways of looking at nature. We are no longer a pioneer society faced with the need to hack out an existence from the wilderness; yet, by and large, our attitudes towards nature are still colored by the hostile feelings of our forebears. This is a dangerous mentality and a self-defeating one for the age in which we live. Man is a part of nature; it is only by love and respect for nature, then that we may create the kinds of environment that will enable us to prosper in the years ahead.

An abandoned farmstead. Every year hundreds of unproductive farms must be given up because they can no longer be operated economically. Proper land use can be assured only if scientific principles are applied in land development.

The word "create" has been used here intentionally because this is the substance of the challenge confronting us. We cannot stop changes from taking place. We must therefore apply our vast knowledge and technological skills to directing the changes purposefully and with understanding of what it is possible to achieve. This creative role is the essence of conservation now and in the future.

Second, and more specifically, there is a need to step up resource inventories, land use and land potential surveys for all of Canada. Having done this, we must set objectives for economic and social development at the national, provincial and regional levels.

Third, we must be prepared to spend a far larger share of the national wealth than we do now for research into the factors influencing environmental changes and for the training of adequate numbers of research workers.

Fourth, there has to be developed the widest possible program of information and education on the ecological aspects of conservation, that is, as it affects life, especially that of humans. School curriculums and teacher training programs especially, need to emphasize the relationships between man and the rest of nature. Also, these scientific principles of conservation should be stressed to a far greater extent in the training of engineers, professional planners and

The Eastern Rockies Forest Conservation board, a joint Federal-provincial undertaking has been established to assure the protection of this important watershed that eventually drains into the Arctic and Atlantic oceans.

other specialists whose work impinges in any way on land and resource use.

The establishment of conservation councils, representative of all resource interests and appropriate disciplines, in each of the provinces and at the national level, patterned after the successful experience of the Conservation Council of Ontario, would be another major step. The financing of such a worthwhile undertaking is a challenge to the public-spiritedness of Canadian business and industry.

Last, there is a need for more effective co-operation and co-ordination at government levels and between the various departments and agencies which are in any way concerned with resources administration.

The departmental system may be a convenient administrative device, but in these days when most resource problems have aspects which are the concern of several departments, and often of more than one government, effective co-operation and co-ordination is essential at the working level to ensure meaningful decisions in cabinet. The Canadian Council of Resource Ministers and the A.R.D.A. program are developments which provide, for the first time, an opportunity for achieving these necessary close-working relationships.

What kind of country do we want Canada to be? What sort of communities do we want to live in? To these questions we ourselves must find answers. We are courting disaster if we continue to drift aimlessly with no goals more worthy than material satisfactions. Conservation cannot provide these answers, but to a large extent it can reveal the possibilities and point the way to achieving them. ✦✦✦

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In the early days of the conservation movement industries could be fairly accused of gross abuse and mismanagement of resources. This is seldom the case today.

THE ANCESTRAL ROOF

by Marion Macrae and Anthony Adamson

Reviewed by Professor M. Hugo-Brunt

The Grange, Toronto, built by D'Arcy Boulton in 1818. "Some of the residences of the gentry are handsome brick structures," Sir Richard Bonnycastle wrote of Toronto.

"The Ancestral Roof" is a history of the domestic architecture of Upper Canada. It was originally inspired by two Academicians at the University of Illinois who encouraged Miss Marion Macrae of the Ontario College of Art, to undertake the research. Another kindly Professor, whose imprint humor and knowledge pervade the entire study, joined forces in what became a profitable partnership, despite the wry introduction which describes "The Ancestral Roof" as being written "By Marion Macrae in constant consultation with and some times in spite of Anthony Adamson, who wrote the first word and the last word and made the drawings". The 258 page book is illustrated with over 160 photographs and 120 drawings. The Adamson drawings which are an essential amplification of the text, are vigorous, and raise this work above the mediocre.

The authors modestly make no pretence to originality or genius, as they believe that their work will be succeeded by more elaborate research. Although this

may be so, "The Ancestral Roof" is a pioneering study. It has been neatly produced by two scholars, neither of whom could be dismissed as bespectacled, crew-cut, or publicity-seeking investigators. The authors have obviously enjoyed writing their book, but being architectural "Pixies" they have introduced the reader exuberantly to buildings and their styles, directed his vision to details and have gossiped away merrily in the by-ways of biography and history. They might have simplified their thesis had they classified the architecture geographically. Future scholars, using their research, must perforce refer to the index to determine the nature of the housing distribution patterns. Footnotes, relating to original and secondary resources would also have been useful, or, alternatively, a notated bibliography at the conclusion. As so much excellent material has been accumulated, the unfortunate authors will, undoubtedly, be subjected to many detailed enquiries in the future.

The hall-mark of North American Neo-classicism in the semi-elliptical fan transom set above a wider door with sidelights. Pine Grove, Maitland, 1822.

In their survey of Ontario Housing, the authors have examined the basic characteristics of European or American styles, and by utilizing the comparative method have related Ontario's prevailing architectural development to them. Their general analysis of stylistic origins is good; but laymen will have difficulty in relating much of the text to the illustrations as there is a disconcerting habit of considering a range of topics in swift succession which focus on anything from architectural detail to autobiography. This is, perhaps, inevitable in a pioneering work; future historians will no doubt find simpler methods of presentation.

"The Ancestral Roof" actually commences with chapter six entitled "My Own, My Native Land". Here, the authors describe the vernacular in which many stylistic features, considered in other chapters, may be present if barely obvious. The Loyalists' log house appears and occasionally survives as in Upper Canada village. These were styled after the American Colonial and were, therefore, Georgian but as the authors indicate the military establishment also exerted an influence. Such houses were orientated to water routes and concentrated in protected areas. In localities where bricks could be made, or stone was readily available, solid load-bearing structures were built. In most buildings, foundations and chimneys were made with substantial and less combustible materials. There are even indications of primitive standardization techniques. As late as the end of the 18th century, log houses were being built in Upper Canada, e.g., the Jarvis House at York, and it is pointed out that a Georgian aesthetic could rightly be described as an Ontario vernacular up to the time of Confederation—as such buildings could be produced almost anywhere by colonial artisans using their local materials. Plans were rectangular and centered upon an entrance hall. Other recognisable features were a low pitched roof, gable ends, and one and a half or two-storey construction. Occasionally, other elements passed into the vernacular, such as the elliptical fan transom in eastern Ontario. Windows had standardized forms in various areas and utilized the Palladian motif or the Venetian window; porches,

Detail of the cast-iron treillage added to Cedar lawn by the Cassels family in the 1860's.

stone quoins and the personal idiosyncrasies of local craftsmen created unmistakable local peculiarities. Even building types, e.g., Regency cottages or an undigested stylistic revival were distinctive as vernacular, as were fireplaces, kitchens, the tunnel-back extensions and even row housing. Nevertheless, the authors wisely decided to commence their study with an examination of architectural style. They were undoubtedly right for those buildings which have survived were, normally, the more significant and pretentious structures. Western architecture is explained from Renaissance times through the Baroque, the Rococo, Palladianism and Neo-classicism until the evolution of late American Colonial during the 1760's.

After the Revolution, the Ontario Loyalists brought a Georgian vernacular with them, i.e., the New England Colonial which then appeared in timber but occasionally in other materials. It was a functional architectural tradition utilizing the available material. Nevertheless, it is certain that these buildings were less elaborate than their American counterparts. The plan was translated into a symmetrical elevation induced by a standardized treatment of solid and void. Changes occurred in roof, dormer, entrace, hall, stair rail, baluster, newel, fireplace, mantlepiece, kitchen, cupboard, shutter, gate and doorway details and the authors indicate the impact of the pattern books which were in general use throughout Britain and the American colonies.

A second phase of domestic building occurred after the 1812 war. Immigrants and the officers of the administration introduced Neo-classicism from Europe while the late Colonial-Federal traditions of the United States translated it into a Neo-classic timber vernacular. Here, once again, Miss Macrae and Professor Adamson demonstrate how staircases, doors fireplaces, mantlepieces, verandas, cupolas, porches, rainwater pipes, internal fittings and decorations provide the layman with an encyclopaedia of detail which are guides in determining the period of construction.

The houses of the Administrative, Military and Colonial gentry were more strongly affected by the Mother country during the Regency which introduced new detail treatments in building plan, massing and the decorative elements. Chimneys, verandas, treillage and gardens were closely associated with solid load-bearing and stuccoed buildings. A picturesque Gothic was employed and the counterpart of Niel's "Houses of the Gentry" appeared in their Canadian equiva-

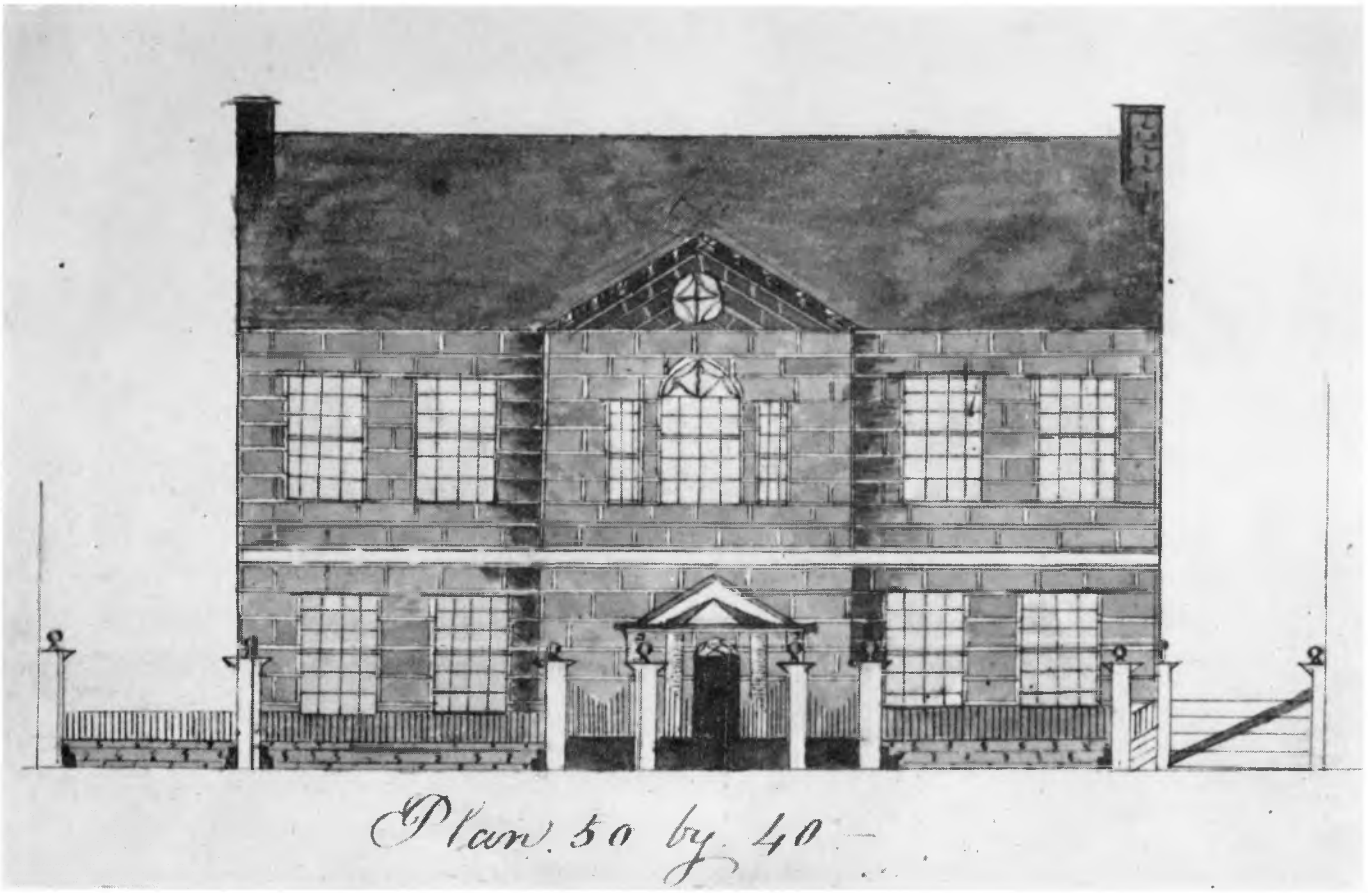
The Poplars, Grafton, built by Eliakim Barnum, 1817, has the timeless charm of Neo-classicism in wood.

lents. Architectural specialists appear from the offices of Holland, Soane, Bullfinch, Cockerall and others; while regional variations were developed by immigrant ethnic groups. The authors appear to have overlooked, however, the impact of various Building Acts which dated from the famous Black Act of 1774 which affected both Britain and America and led to the abandonment of a predominantly timber vernacular in urban areas and its replacement with solid load-bearing constructional techniques between 1803-1841.

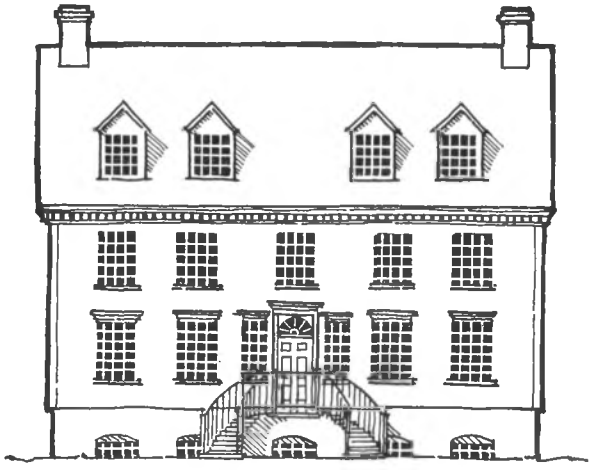
The early Victorian period was marked by the consolidation of the Canadian administrative system. This was accompanied by commercial prosperity and a classical revival specializing in a Greek and Roman aesthetic. New detailing techniques appeared in wrought iron, plans were more elaborate and entrance porches which affected the use of Greek or Roman Doric, Tuscan, Ionic, or Corinthian orders in association with classical mouldings and profiles produced a changed aeshtetic. The collonade, the double tiered veranda, the portico and greater monumentality assumed even more significance while quoins, windows and interiors with wallpapers and other specialized treatments were gradually transformed, as at Kingston.

This classical revival was accompanied by manifestations of other styles which collectively constituted the stylistic revival—or more accurately the Battle of the Styles. After 1841, these buildings were characterized by architectural romanticism. Throughout Ontario Victorian Gothic, Tudor, Jacobean, Tuscan, Rhenish, Baroque, Italianate and other bastard classical aesthetic appeared. The ugliness of this new picturesque did, however, result in greater planning freedom, aesthetic experimentation in form and a rejection of symmetry. The eclectic tradition was peculiarly suited as a channel for representing the status and prosperity of the new Ontario gentry. This was expressed, not only externally, but also internally and the authors describe the period with a magnificent series of photographs.

"The Ancestral Roof" concludes with "The Last Word" in which the authors indicate through black and white sketches the evolution of the house and cottage plan and elevation. They survey outstanding elements such as stoops, porches, treillage, belvederes



William Dickson lost two houses and a law library at Niagara in 1813, but seems to have saved his paint-box. His claim for war losses is one of the few, in the Public Archives of Canada, to be substantiated with water-colours. The preamble reads: "Abstract of William Dickson of Niagara His Claim on the Bounty and liberality of the British Government for contingent Remuneration, for his Real and personal Estate, wantonly and without any Plausible cause, burnt, and Destroyed by the Americans, during the Invasion of the Province, by the Troops of the United States."



The Jacques Baby house at Sandwich, 1790.

Opposite: A client of taste and a stair builder of no mean skill collaborated to produce one of the finest spiral staircases in Upper Canada at 42 Prideaux Street, Niagara-on-the-Lake.

Photographs by Page Tolles

and roof walks. They examine picturesque plans, semi-detached houses and row houses as well as utilitarian elements such as privys, water closets and bathrooms. There is an excellent comparison of door and window trim which is followed by an analysis precedent of the pre-Confederation and post Confederation ancestors of Ontario housing. Entrance doorways conclude the drawings and a selected glossary of architectural terms and an index complete the study. This chapter is equally useful to the layman, scholar, and educationalist, and will no doubt become a convenient source for future lectures!

It is not always easy for either readers or critics to realize the significance of new writing. The book is not by any means the sole study which has been made of Ontario's architecture, as Dr. E. Arthur and many of his Associates have pioneered similar studies in the past. "The Ancestral Roof" does, however, try to relate Ontario's architecture to that of Europe and America. It provides an excellent assessment, and records surviving buildings, others now destroyed or which could well be destroyed in the future. The authors may rest assured that Architects, Town Planners, Landscape Architects and all Ontario citizens are grateful to them for their effort, their diligence and their interest. ✦✦✦

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LE CENTRE de Montréal et Son Évolution

Cet article a été rédigé l'automne dernier; depuis ce temps, certains aspects des quartiers de la Métropole ont changé quelque peu.

Le boulevard Dorchester est en voie d'éclipser le vieux quartier du bas de la ville comme centre des entreprises commerciales.

par Claude Langlois

Pour faire la présente étude sur l'évolution du centre de Montréal, j'ai choisi d'aborder le sujet d'une façon plutôt générale, tel un observateur qui vit et travaille dans une localité de banlieue, qui s'intéresse beaucoup à la cité-mère et qui en subit indirectement l'influence.

Au cours des quelques dernières années, le centre de Montréal a changé très rapidement, et trois facteurs ont contribué à un nouveau mode d'évolution qui se fait même ressentir dans les modes de croissance des zones de banlieue.

Le changement et les fonctions

Les fonctions de la cité de Montréal dans l'économie nationale et provinciale ont évolué d'une façon très radicale au cours des cinquante dernières années. Au début du siècle, Montréal était considérée comme la capitale d'un empire commercial et financier, mais son rôle a changé graduellement. Son emplacement stratégique sur le fleuve St-Laurent, au point de convergence des principales routes de transport et au cœur des basses-terres riches en agriculture de Montréal, a considérablement favorisé son développement comme fournisseuse des produits manufacturés au Canada. Un changement remarquable continue à se produire. La révolution industrielle du Québec, la prise de conscience par les Canadiens français, du rôle qu'ils sont appelés à jouer dans une nation industrielle entraînent d'importants changements dans les fonctions de la Cité et dans les forces de structure de son mode d'accroissement. De nos jours, on peut dire que Montréal remplit trois fonctions principales: 1) elle renferme une large part des institutions commerciales et financières de l'économie canadienne; 2) c'est le plus important centre manufacturier du Canada; 3) c'est présentement la capitale commerciale, financière et manufacturière d'une nouvelle puissance industrielle—la province de Québec.

C'est cette dernière fonction qui a les plus fortes répercussions sur l'évolution de Montréal, vu qu'elle n'influence pas seulement le mode physique d'accroissement du Grand Montréal et de ses zones centrales, mais elle occasionne aussi des changements importants dans la structure sociale de la population. Ces changements sont sans doute même encore plus importants que la simple évolution de la structure matérielle de la Cité. Le Canadien de langue française, plus conscient de nos jours du rôle qu'il devrait jouer, s'infiltre graduellement dans les fonctions administratives, au niveau régional et même au niveau national.

Un effet direct de cette prise de conscience est

l'effort fourni par différents niveaux de gouvernement, mais surtout par les hommes d'affaires canadiens-français, en vue d'obtenir leur part de la répartition de l'espace dans le district central des affaires. Par exemple, des efforts sont faits pour attirer un nombre de plus en plus grand d'établissements commerciaux vers la partie est du district central de la Cité.

Cet effort pour séparer même les éléments financiers et commerciaux du centre de la ville peut produire divers effets: il peut résulter en un insuccès à créer dans l'est un centre d'affaires fort; d'autre part, si cet effort est couronné de succès, il peut produire deux centres d'affaires faibles, l'un à l'est et l'autre à l'ouest.

Le troisième facteur de croissance à considérer est l'expansion matérielle normale du centre de la ville. Alors que, pendant des années, le vieux centre de Montréal était concentré sur la terrasse inférieure, immédiatement au nord du fleuve St-Laurent, on a été témoin au cours des dernières années d'un déplacement progressif des entreprises commerciales vers la terrasse supérieure; le long du boulevard Dorchester.

L'écologie du centre de Montréal

Les diverses installations commerciales établies dans les secteurs centraux de Montréal se sont réparties dans le vaste territoire que forment les parties situées au sud de l'Île de Montréal. Une ségrégation naturelle s'est produite et les seules intrusions ou invasions que l'on constate sont celles des quartiers résidentiels.

Les districts financiers et commerciaux

Ces districts couvrent trois zones principales. Le centre administratif, l'Hôtel de Ville, les tribunaux, l'administration provinciale et, entourant la place Jacques-Cartier, se trouve l'un des plus vieux quartiers de Montréal. Bien qu'il se produise une certaine décentralisation, celle-ci est encore très limitée, et les éléments précités ont un caractère de grande stabilité géographique dans une ambiance historique.

Le district financier est encore surtout concentré près de la rue St-Jacques. Entassés dans de vieux bâtiments à l'apparence sévère, les financiers adoptent graduellement un nouveau mode de vie et ont tendance à se déplacer vers la zone qui s'est en premier lieu développée comme un centre d'affaires mais qui absorbe graduellement les établissements financiers—le boulevard Dorchester.

Cette zone devient de plus en plus le véritable centre de Montréal. L'étroit boulevard Dorchester d'il y a quelques années, encombré de maisons sur ses deux côtés, est maintenant devenu un grand boulevard (relativement parlant, bien entendu!), un long corridor bordé de gratte-ciel de part et d'autre. Le véritable caractère de cette zone en est un d'entreprises vigoureuses, constamment en marche et attirant sans cesse de nouvelles entreprises.

Les districts des institutions et de récréation

Montréal, qui est une cité de deux cultures, était destinée à contenir d'importantes institutions et ces édifices sont échelonnés sans plan trop précis autour du cœur de la Métropole. On compte six segments importants: le quartier situé le plus à l'est, près du parc Lafontaine, renferme des institutions culturelles à caractère français; le quartier suivant vers l'ouest renferme une variété de vieilles agglomérations culturelles essentiellement françaises et les principaux hôpitaux français; le quartier central, près de l'avenue des Pins, à partir de l'avenue du Parc jusqu'à la rue Côte des Neiges, renferme les centres médicaux anglais et l'Université McGill; le quartier situé près des rues Sherbrooke et Atwater renferme d'anciennes institutions religieuses françaises ainsi que de petits hôpitaux et centres de bienfaisance anglais; les quartiers situés au nord de la montagne renferment l'Université de Montréal, d'autres importantes institutions d'éducation et des hôpitaux français. Le dernier district d'institutions, dans la partie sud-est du centre de Montréal n'est pas encore construit—ce sera le centre Radio-Canada.

Alors que la plupart des districts d'institutions ont été dans le passé tout à fait stables et ont eu tendance à se concentrer, l'emplacement de Radio-Canada dans l'est est le seul élément important de dispersion qui se soit produit au cours des quelques dernières années. Les effets de ce déplacement du district des

Le nouvel emplacement de la société Radio-Canada dans l'est de Montréal. Ce déplacement pourra entraîner une activité commerciale accrue dans ce vieux quartier résidentiel de la Métropole.

affaires vers une zone qui était en grande partie dans le passé à caractère résidentiel, produiront sans aucun doute des effets impressionnants sur l'évolution du centre de Montréal. Entraînera-t-il avec lui tous les établissements d'affaires à caractère très particulier qui vont de pair avec la présence d'un centre de radiodiffusion, ou créera-t-il une nouvelle activité commerciale autour de ses nouveaux quartiers, tandis que ceux qui sont situés dans l'ouest continueront de fonctionner dans le même genre de commerce? Le caractère des maisons d'affaires établies dans l'ouest changera-t-il? L'emplacement de la Société Radio-Canada dans l'est occasionnera-t-il l'organisation d'un centre secondaire du même genre dans l'ouest? Voilà seulement quelques-unes des questions qu'on peut se poser en rapport avec le déplacement d'une aussi importante concentration que la Société Radio-Canada.

Les centres de récréation de Montréal sont bien connus dans tout le Canada. Son merveilleux parc Mont-Royal dans la montagne a été jusqu'à maintenant, grâce aux efforts d'un si grand nombre de personnes, raisonnablement bien protégé contre tout empiètement par des usages divers, sauf peut-être en ce qui concerne la hauteur des bâtiments édifiés sur le flanc sud de la montagne. Les parcs Lafontaine et Maisonneuve sont deux des centres de récréation les mieux organisés au Canada, et répondent bien aux besoins des Montréalais. L'île Ste-Hélène a été équipée progressivement et construite au cours des quelques dernières années; c'est un des centres de récréation les plus fréquentés. L'exposition mondiale de 1967 permettra la mise à exécution encore plus complète des plans définitifs.

Les districts commerciaux et de distribution

Les établissements commerciaux sont répartis dans toute la région du Grand Montréal, mais seulement quatre zones renferment de fortes concentrations de magasins et de boutiques.

La première de ces zones, située près du centre même de la Cité est constituée de trois éléments principaux: en premier lieu, une concentration située entre le Carré Philippe et la rue de la Montagne renferme la plus grande partie des grands magasins à rayons, Eaton, Morgan, Simpson, Ogilvy's, et les autres. Cette zone est en réalité le cœur même des installations commerciales et attire dans une égale proportion les Montréalais de langue française et de langue anglaise. Au nord du quartier des magasins à rayons, le long de la rue Sherbrooke, on a assisté au cours des quelques dernières années à l'établissement de boutiques de luxe d'une élégance cosmopolite. Ces boutiques sont fréquentées particulièrement par les Montréalais à l'aise. Le troisième élément constituant de cette zone est d'un caractère plus ethnique, en ce sens qu'il est particulièrement fréquenté par les Montréalais de langue anglaise.

Les trois autres quartiers commerciaux de nature métropolitaine présentent une caractéristique presque uniquement française (ici, évidemment, je veux parler des clients, et non pas nécessairement des propriétaires!). La première de ces zones s'étend aussi le long de la rue Ste-Catherine en prenant pour centre le magasin à rayons Dupuis Frères, et est reconnue comme le quartier français. Bien que le magasin à rayons Dupuis Frères réussisse très bien à attirer sa clientèle métropolitaine et qu'il fasse même avan-

tageusement concurrence aux magasins à rayons situés dans l'ouest de la ville, la plupart des autres magasins n'ont pas autant de succès et sont d'une nature plutôt locale que d'un caractère vraiment métropolitain. Au cours des deux ou trois dernières années, de nombreuses tentatives ont été faites afin d'encourager le développement de ce quartier. La proximité du quartier commercial central et la présence des deux autres centres commerciaux à caractère français l'ont empêché de se développer réellement selon les prévisions.

Le centre commercial du Plateau Mont-Royal, situé plus au nord, le long de l'avenue Mont-Royal était, il y a quelques années, très florissant, à cause de son emplacement même au nord des deux quartiers du centre. Toutefois, le développement rapide de la Place St-Hubert, le long de la rue St-Hubert, encore plus au nord, a rapidement transformé le succès de cette zone commerciale d'une portée vraiment métropolitaine en un succès d'une nature plus locale.

La Place St-Hubert est sans doute de nos jours la plus florissante des trois zones commerciales à caractère français. Composée d'une série de boutiques petites et moyennes, inaugurée avec beaucoup de publicité, et particulièrement bien administrée, elle constitue aujourd'hui le district commercial qui a le plus de succès, en ce qui concerne les Montréalais de langue française. En effet, elle attire des clients non seulement de tout le Montréal métropolitain, mais aussi, des régions extérieures, peut-être même à un degré comparable au centre commercial central de l'ouest de la ville. Son emplacement, loin des autres zones est aussi sans doute sa meilleure garantie de succès.

Il y a aussi trois centres distincts de distribution dont chacun a pour centre un des plus importants dépôts de fret à l'intérieur des zones centrales. La zone située près de la rue Windsor, s'est développée à cause des facilités de distribution et des services de messagerie des compagnies de chemin de fer; elle se caractérise particulièrement par ses hangars à marchandises, ses usines de distribution et un certain nombre de grosses manufactures.

La seconde zone se situe autour de la Place Viger et s'étend vers l'ouest. Elle renferme des services de chemin de fer, des entrepôts, des grossistes et de petits fabricants qui desservent l'activité commerciale qui se déroule à l'intérieur de ce noyau. Cette zone se caractérise surtout par de grands bâtiments qui servent à la vente en gros et à l'entreposage des marchandises, ainsi que par de petites manufactures. La troisième zone est située plus à l'est et sa fonction principale est de desservir les grosses industries et le port. Elle exerce une influence moins forte sur le développement des zones centrales du Grand Montréal.

Le développement industriel

La cité de Montréal est devenue le plus important centre industriel du Canada. Elle est en effet la principale fournisseuse des produits manufacturés de tout le Canada. Il n'existe aucune zone industrielle précise dans le vieux Montréal. En effet, les usines industrielles sont éparpillées dans tous les secteurs du centre de l'Île. Les industries avoisinent des entreprises commerciales, des établissements commerciaux et des entreprises financières. Dans les années de l'après-guerre, il s'est produit une certaine diffusion dans l'emplacement des industries dans les banlieues, dans les nouveaux et trop nombreux parcs industriels souvent mal conçus, mais le degré de diffusion n'a jamais été trop élevé. D'autre part, il ne s'est produit aucun véritable mouvement de décentralisation vers la province. Le fait que Montréal soit le seul centre qui puisse fournir tous les services nécessaires continuera aussi certainement d'empêcher qu'il ne se produise une bien forte décentralisation.

Il s'est produit une certaine diffusion dans le secteur ouest de l'Île et on prévoit que l'accroissement industriel de la rive sud deviendra très important au cours des prochaines années. La cité de Montréal renferme encore plus des deux tiers des industries, en fonction du nombre d'employés. Le centre de la ville, de la rue Atwater à Delorimier et au sud de la rue Sherbrooke, renferme encore 30 p. 100 du nombre total de personnes employées dans les industries de fabrication—soit un nombre d'environ 85,000. Le groupe le plus important est employé dans l'industrie

Pour hâter le déblaiement du secteur réservé aux nouveaux édifices de Radio-Canada on a recours au bélier-pendule qui d'un seul coup peut provoquer l'effondrement de ces maisons centenaires.

du vêtement dont plus de 25,000 se trouvent dans des usines situées au centre de Montréal, tandis qu'environ 60,000 personnes sont employées par les industries du vêtement dans toute la Cité. La seconde industrie manufacturière en importance est l'industrie des aliments et des boissons; environ 10,000 employés sur le total de 25,000 travaillent dans le district de Radio-Canada. L'industrie des appareils électriques vient ensuite avec près de 10,000 des 18,000 employés du Grand Montréal. Les deux prochains groupes sont les industries de l'imprimerie et de l'acier et du fer qui comptent respectivement 8,000 et 7,000 employés dans les districts du centre de la ville. Les autres groupes d'industries suivent cette énumération avec des nombres moins importants d'employés.

Le problème du logement

Parmi tous les autres genres d'usages du logement, il y a aussi les logements de transition. De vastes secteurs du centre de Montréal pourraient bien être désignés comme des zones résidentielles de transition. Il ne s'agit pas seulement de zones qui changent matériellement d'un usage résidentiel à d'autres usages, mais ce sont aussi des zones de développement social, où les groupes d'immigrants ou de nouveaux venus dans la zone se succèdent les uns aux autres à mesure que ces derniers améliorent leur situation sociale, à mesure qu'ils apprennent à parler la langue du milieu, à mesure qu'ils acquièrent une certaine habileté dans l'industrie et deviennent en mesure de déménager vers des secteurs plus éloignés, dans des maisons plus chères, mieux construites, mieux aménagées et mieux entretenues, ces nouveaux venus dans la cité quittent leur quartier dans la zone de transition et sont remplacés par un autre groupe d'immigrants.

Ces zones centrales renferment un mélange d'utilisations diverses du terrain. Nous y trouvons en effet les districts des célibataires; nous y trouvons les repaires, le quartier général et les résidences des criminels. En contraste frappant avec cet entourage sordide, nous trouvons, situés à proximité immédiate et à la même distance de la zone centrale, des appartements luxueux et le district aux enseignes lumineuses où se trouvent les restaurants chics, les boîtes de nuit et les théâtres. A Montréal, comme dans toute autre métropole, la Côte de l'Or avoisine les taudis.

Il y a deux aspects importants au problème des taudis: l'aspect spéculatif et l'aspect social. De fait, la valeur des terrains dans le quartier des taudis est élevée, non à cause du revenu que rapportent ces propriétés, mais à cause du revenu élevé qu'on prévoit d'en tirer dans un avenir plus ou moins éloigné, lorsque le quartier central des affaires s'étendra jusque dans ces districts. Les valeurs élevées du terrain dans les districts de taudis sont ainsi fondées sur la spéculation. Il est permis de se demander tout de même de nos jours quelle est la valeur réelle du terrain dans la plupart des quartiers de taudis. Alors que, dans le passé, les cités grandissaient selon l'horizontale, de nos jours, la tendance est à l'accroissement vertical et l'expansion dans l'espace des utilisations non résidentielles dans les quartiers du centre est beaucoup plus lente qu'elle avait l'habitude de l'être. Certains districts en effet qui auraient dû être atteints par la construction de bâtiments non résidentiels dans les zones du centre, sont encore aujourd'hui relativement éloignés du quartier central des affaires. Il se produit évidemment un accroissement continu dans l'espace, vu que tous les districts situés près des zones du centre ont perdu de la population au cours des quelques dernières décennies, mais le mode d'accroissement selon la verticale a occasionné des changements radicaux.

Les aspects sociaux des quartiers de taudis sont cependant les plus importants à considérer. Relative-

ment parlant, il s'est fait très peu de travail de réaménagement dans le Grand Montréal. Le réaménagement par l'entreprise privée a donné lieu à une activité assez grande, mais on ne s'y préoccupe pas de reloger les personnes dépossédées de leur logement par suite du réaménagement. S'il résout le problème de la détérioration matérielle, il n'aide en rien au problème social. Le réaménagement par l'entreprise privée a pris la forme de la construction de bâtiments non résidentiels d'une part et de la construction d'appartements luxueux, d'autre part. Les véritables programmes de réaménagement qui comprennent le relogement des personnes déplacées, ont été trop peu nombreux à Montréal. Un relevé entrepris par la cité de Montréal établissait à environ 30,000 le nombre de taudis dans la Cité. Pourtant, jusqu'à ce jour, les seuls projets qui aient été approuvés sont (1) les Habitations Jeanne-Mance, une entreprise de conception anglaise construite pour des Canadiens français dans un district cosmopolite; (2) l'entreprise de Radio-Canada dans l'est qui devrait être mise à exécution prochainement; (3) l'entreprise du boulevard des Trinitaires, dans le quartier St-Paul, qui ne comprendra que la construction de nouveaux logements sur du terrain présentement vacant; et (4) la démolition annoncée récemment de la zone du Village des Oies, sur la pointe sud de l'Île, qui entraînera la démolition d'un certain nombre de taudis que l'on remplacera par des industries.

Le centre de Montréal

Dans le centre de Montréal on constate d'une part, un certain degré de ségrégation dans l'utilisation du terrain, mais comme dans toute cité il s'y trouve aussi un degré assez élevé de chevauchement entre ces divers usages. Dans l'ensemble, cependant, on peut y déceler deux tendances principales dans le mode d'accroissement du centre de Montréal: d'une part, la tendance à l'accroissement selon la verticale plutôt que selon l'horizontale; cette tendance dure depuis déjà quelques années. La seconde tendance est cet effort déployé par les groupes de Canadiens de langue française, pour attirer une plus forte proportion des affaires dans la partie est de la Cité. Il est encore trop tôt pour dire s'ils réussiront à atteindre leur but, mais

Dans le cadre pittoresque du Montréal traditionnel se dressent les silhouettes allongées de la cité de demain.

il est certain que la nouvelle implantation de Radio-Canada dans l'est constitue pour eux une importante victoire. Il reste encore, toutefois à réaliser le plus important élément d'accroissement du centre de Montréal: l'Exposition mondiale de 1967. L'emplacement choisi pour l'Exposition est situé à mi-chemin entre l'est et l'ouest, et on pourra y avoir accès des deux directions. Cet événement important exercera une forte influence sur le développement à venir des quartiers du centre. Cet emplacement attirera-t-il le district de Radio-Canada vers l'est ou se prolongera-t-il plutôt vers l'ouest et le sud-ouest? Les plans et l'organisation de l'Exposition mondiale n'en sont encore qu'à leur stade préliminaire et ils est vraiment trop tôt pour déterminer l'influence réelle qu'elle pourra exercer.

Je me suis abstenu, pour la même raison, de parler des innombrables problèmes de circulation qui existent au centre de Montréal. L'exposition mondiale nécessitera une revision complète du problème.

En examinant le mode d'accroissement du centre de Montréal, on ne peut éviter d'établir un parallèle avec l'économie de la province de Québec. Toutes deux, en effet, se développent rapidement et vigoureusement, toutes deux manquent trop souvent de préparation, toutes deux en sont arrivées à un point critique de leur évolution et, heureusement, toutes deux grandissent sous une administration saine.✦✦✦

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NEGLECT and URBAN DECAY

by Albert Potvin,
Central Mortgage and Housing Corporation.

Calgary in the late 50's. The older residential district in the foreground may be doomed as the city center expands.

In sketching the course of evolution of an aging residential community we must resort in a large measure to the speculative or deductive rather than the clinical approach. Digging up the past history of each house through its succession of ownerships would present an impossible task in most cases. But therein lies a danger. We are too prone to seek neat explanations by drawing analogies.

We have been told, for example, that urban decay is a "disease", with neglect as the root of the illness. Urban blight has been explained as something that "spreads" like a pernicious malady that eventually infects the whole organism.

Is urban decay something infectious, a cancer that starts in a single house down the street then spreads to other nearby residential cells? Can we compare urban decay to some sort of plague, a communicable disease that eventually leads to the disintegration of an entire neighborhood or a whole section of the city?

The chain-reaction theory of urban decay like all plausible explanations if readily accepted is not so easily proved. Carrying this reasoning further, we would conclude that a neighborhood could be saved from the ravages of decay through some sort of prophylactic measure, a single can of paint, perhaps, applied at the critical moment as a sort of inoculation to arrest the evil. It may be truer to say that the evidence of neglect presents but a symptom, the result of varied influences at work on the social and economic texture of a neighborhood as well as on the structural composition of its buildings. The term "decay" when applied to buildings, does not have the same meaning as when describing a bowl of fruit, or a keg of fish. The physical deterioration of a house is less a question of infection than an organic failure—a degenerative phenomenon resulting from imperfections or weaknesses in the structural components and prolonged exposure to the elements. Neglect of a single property does not inevitably act as a catalyst in hastening the deterioration of neighboring properties. If the signs of age and dereliction become evident in a group of houses at the same time, we can conclude that these houses were uniformly vulnerable to begin with.

The same "natural" agents responsible for the destruction of a house begin their work the moment the structure is built. No building is entirely immune to these influences. The eventual collapse of a house results from a relentless process of microscopic breakdowns. Wind and rain carry on their ceaseless attack on the exterior surfaces of the building. Rust eats away at nails, eaves and flashing. Alternative spells of heat and cold causing expansion and contraction have a dislocating effect on the various structural parts of the building. A continual if imperceptible movement of the soil on which the building rests tends to unseat the foundations. A receding water table will cause clays to dry up and shrink, resulting in wall fissures in otherwise still solid structures. Excessive humidity with resulting condensation favors fungus growth and the development of bacteria responsible for the gradual rotting away of the wooden parts of a house. In certain areas termites

As a monument to the past and a continuing tourist attraction, homes in Quebec's walled city escape the fate of many newer structures standing in the path of progress.

are insidiously at work and can bring about the ultimate destruction of a building even before any outward signs of aging become apparent.

Acting on the building are a host of other factors; snow loads on the roof, the eroding effect of a dozen feet scraping over the same floor surface a hundred thousand times a year, the ceaseless opening and closing of doors, the lifting and dropping of window sash, the chemical disintegration of a building's masonry components through the action of acids given off in the course of combustion,

You may retard physical decay in a house, but you cannot stop its course. Decay goes on in a building without let-up, and without the benefit of regenerative powers that living organisms enjoy.

That some houses are able to resist much longer than others is largely due to the quality of their construction. We all know the story of the three little pigs; the first one put up a straw house, the second used wood, while the third built himself a house of bricks which the big bad wolf was not able to blow down. Owing to the excellence of the original structure, houses in the Sandy Hill district of Ottawa will on the average outlast those in nearby "lowertown" mainly because they have been given better care but they were better built initially.

The older section of Quebec City, that group of closely stacked houses contained within the ancient walls is often pointed out as an example of residential construction that has resisted urban decay. We must not forget, however, that here there are important sentimental and economic factors that have contributed not so much to the arresting of decay, but to forestalling obsolescence. These houses constitute a unique tourist attraction and thus have an economic value that makes them worth preserving in their present state. The ageing of the buildings here becomes a definite advantage. As long as these conditions prevail every attempt will be made to ward off, outwardly at least, any signs of decay. But there will come a day when their restoration will no longer be economically feasible.

When we speak of the gradual decay of a neighborhood, which involves more than physical deterioration of buildings, the neglect into which the area has fallen should still be regarded as a symptom, not the determining factor. Neighborhoods become neglected because the original incentive to maintain them is no longer present. As we well know, this often happens when an area that was once solidly home-owner in character mutates into a community of tenants. Adverse zoning or the lack of protective regulations can produce a similar effect. Of course, if the buildings are long past their prime, having sheltered three or four generations, the downgrading will be compounded by the building's structural deterioration.

When referring to urban decay we must first establish in our own minds the difference between the physical deterioration of man-built structures and the broader but equally valid definition of the term as it

describes the social and economic degeneration of a neighborhood. We should learn to think of deterioration and neglect as two distinct aspects of urban decay, and not as an equation. The skill of the designer and the builder and the quality of the material used will determine to a large extent the pace of structural decay. The rate of neighborhood degeneration or obsolescence, on the other hand, is not so easily predictable. We cannot foresee all the twists and turns of the future, the shifts in our economic structure, demographic changes, modifications in building techniques and living habits, altered tastes and values and other contingencies that weave the pattern of history.

The residential character of a neighborhood may be compromised as a result of a creeping encroachment by commercial or industrial establishments, by access or parking difficulties, the re-routing of traffic or by any combination of these or other external factors. To assess accurately the total or even the partial effect of each factor is next to impossible. We must be satisfied with the evidence and also accept the fact that every residential area, even the best planned, will ultimately enter a period of decline.

The term "blighted area" is usually reserved for the more advanced stages of decay where houses are physically run down beyond the point of redemption. But neighborhoods may be qualified as depressed or declining before any substantial evidence of structural degeneration is observed. We also see residential areas made up of older homes with a few derelict houses in their midst as yet in no danger of becoming slum areas. They are just not "ripe" for decay.

In our cities we also have neighborhoods of arrested vitality. Here we find no signs of neglect but there is evidence of aging. These districts are no longer considered "buoyant" by real estate standards, yet remain essentially residential according to the better meaning of the term. Such neighborhoods can be found in nearly every large Canadian city, usually located between the main business area and the inner perimeter of the suburban spread. A neighborhood may remain in this state of inertia or gentle decline for many years until directly affected by the external pressures that lead to the decomposition of a residential area, or until time itself brings about the deterioration of the buildings.

Along the outer rim of the downtown area where the change from residential to commercial has taken place at a revolutionary pace, the change has often been so rapid that symptoms of decline have never become obvious. In the space of a few years the entire complexion of the community is altered. Still perfectly sound homes are torn down to make way for high-rise apartment buildings and commercial establishments. The older part of Edmonton's west end can be cited as an example of rapid transformation where a metamorphosis of this kind is taking place. In such cases the usual transitional period is hurdled in a single leap with few speculative property transactions taking place along the way.

On the other hand we have the ailing residential community that has been infirm since birth. Here, neglect has been present in one form or another from the very beginning, a sort of built-in neglect accentuated by the development's mongoloid characteristics. These are the incoherent neighborhoods situated mainly on the outskirts of the city. From the embryonic stage they have grown up in haphazard fashion, abetted by the lack of local building by-laws and by bargain-counter lot prices. Most of these neighborhoods came into being before the era of town planning in Canada. They have never been integrated into the urban community, but because of rising land values they have a tendency to become self pruning. Even in these mis-shapen neighborhoods it would hardly be fair to say that neglect is contagious. Rather, it is endemic to the area.

Once popular neighborhoods may experience a decline because the houses in the area, though in no way menaced structurally are outmoded in appearance. The downgrading in this instance will not be as severe as in the case of areas where physical decay has reached a more advanced stage, but the ultimate result, though delayed, will be the same. A house may still be structurally sound though half a century old, but if its style is no longer considered attractive in the modern definition it will have to offer more in the nature of amenities such as better shopping facilities,

greater floor space and prospective land value increases in order to compete with houses in newer developments. Furthermore, its market value will usually fall far short of its replacement value, unless, it also offers tempting speculative possibilities because of its location.

Total conversion, that is refurbishing and equipping the older house with modern facilities and giving it an exterior face lifting can serve as a retardant but cannot indefinitely forestall obsolescence. To completely renovate an older house with the idea of making it into a truly modern home can only be achieved at very high cost and is seldom undertaken on a neighborhood basis. The White House in Washington and the Canadian Prime Minister's residence on Sussex street in Ottawa both have undergone massive renovation but this from-the-bottom-up type of restoration is beyond the average budget and can hardly be considered economically sound.

Homes—and by extension neighborhoods—become neglected the moment it is no longer economically or socially profitable to maintain them in good repair. A landlord may attempt to rejuvenate the houses he owns if he feels he can thereby obtain more revenue from them or prevent a reduction in income. The owner of an older home may be urged to renovate his house if he is satisfied that his remodelled home can meet his family's needs for a number of years and satisfy both their living requirements and social aspirations. But if a residential area is already well on the downgrade because of the age of its houses or the changing pattern of the neighborhood, the landlord and homeowner alike will do some careful thinking before spending heavily on upkeep and renovation.

The life span of a house and of a neighbourhood is determined largely by the quality of the original construction.

Even the better family home areas are affected by the changing concepts of residential developments.

Thus neglect can be reduced to a question of economics. Community values and pride of ownership become secondary considerations.

Every city has its depressed residential areas and its declining neighborhoods and it may not be presumptuous to assert that urban decay serves a practical purpose in the evolution of our cities. We cannot plan for sixty years ahead because we can only surmise as to the shape the city will assume by then. It would have been impossible, for example, for urban dwellers in 1904 to visualize the city of today with its astronomical proliferation of motor vehicles, the need for new arteries, bridges, parking facilities and traffic controls that are an integral aspect of the modern city. Trying to dress up older buildings that have served their intended purpose for the best part of their expected life span, retarding the demolition of an age-worn home or group of homes slows down the natural development and expansion of the community. As in all cyclic processes, it may be better to let things run their course than to prolong unduly the degenerative stage. It is even desirable in many cases to hasten the end through major surgery. We are only just recently accepting the idea that a spent and outmoded neighborhood can be profitably amputated through a single operation. Civic authorities and hard-headed business men alike are being won over to the notion that preservation which only leads to stagnation and simply postpones the ultimate decision can be more onerous and more costly in the long run than renewal.

Decline is the natural sequence of maturity. The old tree must fall to make way for the sapling reaching for the sun. Architects are searching for sites in the heart of the city on which to build their new creations in steel and concrete, though they too know that a hundred years hence their monuments will probably be obsolete and ready for demolition.

Cities undergo a constant process of rebirth; the regenerated city is conceived in the ferment of the decaying city. Traditionally, the new city has sprung up piece-meal from the ruins of the old, where destruction was not hastened by war or other major calamity. It may be that in the future we will not even tolerate any evidence of urban decay. With our growing passion for a revolutionary approach to recurring problems we may be looking for a new formula to treat urban decay by replacing the ailing tissue before a neighborhood becomes known as a blighted area.

NEPTUNE THEATRE

by John Wray

Halifax was one of the first cities in Canada to give serious thought to the redevelopment of its downtown district. The year 1961 saw the completion of Mulgrave Park, a model housing complex to relocate families from a badly blighted area in the heart of the city. This initial venture set the course for future redevelopment projects.

It was inevitable that redevelopment plans for Halifax should eventually include provisions for a live theatre, for it was here that the first theatre was born in Canada at the beginning of the 17th century. In the spring of 1962, a Committee of the Halifax Board of Trade explored the possibility of establishing a live professional theatre in the centre of the downtown redevelopment area. The Board of Trade and the Civic Authorities felt that this was the type of project needed to set the pace for further redevelopment in the City. The projected opening date of July 1st, 1963 would fit in well with the receipt of proposals for the main redevelopment area and the impetus given by the opening of a live theatre would act as a spur to the redevelopment of the whole area.

Negotiations were made for the purchase or rent of a suitable building and it was found that the most favorable would be the old Garrick Theatre which was owned by Odeon Theatres. Prior to the last world war the Garrick was the home of vaudeville in the area and some touring live theatre, but in 1947 extensive alterations were made to make it more acceptable for movies. The Garrick continued as a cinema until its last movie was shown at the end of February, 1963.

When it became apparent that live professional theatre was going to become a reality in the Maritimes, the founders were faced with the problem of selecting a name for the venture. It was called the Neptune, after the first masque that was performed in the Maritimes. In 1606, on the shore of the Annapolis Basin in Nova Scotia, Marc Lescambot wrote and staged a masque called "Theatre de Neptune" in honor of the return of

Demolition work in progress on the front entrance.

The finished auditorium and stage.

the explorer Jean de Poutrincourt from a fruitless excursion to Port Fortune. In the play reference was made to "Mighty Neptune, God of the Sea", rising from his drenched chariot and holding aloft his symbolic trident. This part of the original script was also the inspiration for the trident 'motif'.

In a three-storey building adjoining the old Garrick, an office building was remodelled to accommodate theatre administration and publicity on the second floor, actors 'Green Room' and wardrobe on the first floor, and a theatre workshop and property storage in the basement. All three storeys were made directly accessible to the theatre and stage, thus improving circulation and theatre direction.

Demolition work was started in late February, 1963. Ton after ton of debris was hauled away from the building as the old movie theatre was stripped down. As the asbestos sheet side-walls and the ceiling of the cinema were removed the auditorium took on the shape of the Vaudeville Theatre and it became apparent, even at this stage, that the acoustics would be excellent from all seats.

In order to improve sight lines and seat spacing, all the movie house seats were removed, the balcony extended and raised to its maximum rake to obtain the best possible vision. The seating capacity was limited to 525 in order to provide satisfactory vision from every seat.

While demolition work was progressing in the main auditorium it was decided that the existing dressing rooms, too small and inadequate for practical use, with a headroom of seven feet, should be rebuilt. The stage above the dressing rooms also required re-levelling; it was felt that by raising the stage six inches and excavating below the floor a more practical headroom could be obtained. The dressing rooms were enlarged, an apron was added to the stage and each actor was provided with his own counter, storage accommodation and mirror, complete with make-up lights.

It was agreed that, in order to store sufficient scenery almost everything would have to be flown in the fly tower. The old wooden gridiron floor, which still had pulley blocks and scenery on it dating back to

The old Garrick Theatre in the days of vaudeville.

View towards the entrance of the theatre with demolition underway.

vaudeville days was strengthened and twenty-seven lines of pulleys were installed to facilitate scenery handling. The dirt and dust of ages was removed from the beams and girders and new ladders and walkways were installed to provide convenient access for stage crews.

With the major construction work gathering momentum, the problems of providing adequate power and lighting facilities became apparent. A lighting control board was installed and new power supply and transformers were located in the basement area. The lighting control board was placed in the projection room, this being the only position where good visibility of the whole acting area could be obtained. In order to install the very heavy lighting board it was lifted by crane from sidewalk level and manoeuvred through the outside wall of the projection room. The new lighting slots were located in the old barrel-vaulted ceiling to house thirty front-of-the-house lights; the old wooden suspension system was cut and re-hung in order to provide the necessary access walkways behind the lights. Two concealed vertical lighting pipes were also installed on each side of the auditorium for spotlight effects.

A new intercommunication system was installed, giving speech control from projection room to auditorium and backstage, with speakers fitted in each dressing room so that actors would know when their stage entrance had to be made. This elaborate system has also proved invaluable during rehearsals.

In order to meet the deadline the final touches to the walnut panelling in the auditorium were made as rehearsals got underway, and the carpeting was laid with a background of dramatic speeches from the stage. A fanfare of trumpets proclaimed the Neptune Theatre open. The first performance, George Bernard Shaw's "Major Barbara" was received with great enthusiasm and got a standing ovation.

Since the opening night, things have gone fairly well with the Neptune; time will tell if the folk who live on the eastern seaboard, where live theatre was born in Canada, will again set the example for the rest of the country as patrons of the arts.

In the remaking of cities the arts have a definite place. For too long we have been thinking of urban redevelopment as simply exchanging old homes for new, replacing the hovels with high rise apartment buildings. Now, we are coming back to the idea that the heart of the city should be a gathering place where the citizens come to spend their leisure and partake in cultural pursuits, and not just the hub of commercial and business activity. Halifax is crusading in this direction; the opening of the Neptune Theatre is a concrete example. ✦✦✦

John Way was born and educated in England and gained considerable experience in the design and construction of school buildings, including auditorium and stage products.
Since his arrival in Canada in 1958 Mr. Way has spent a number of years in Ottawa working for a firm of private Architects engaged in work of a varying nature. He was able to further his experience in theatrical design before moving to Leslie R. Fairn & Associates, Halifax, where he found his knowledge of the theatre invaluable in the remodelling of a movie theatre to a live theatre.

Une rue située dans un endroit appelé à être soulagé de ses taudis dans l'Est canadien. Une telle atmosphère ne peut qu'être malsaine moralement et physiquement à la jeune génération d'une ville.

UN ASPECT DE LA LUTTE CONTRE LES TAUDIS

by Paul Vézina

L'action entreprise ces dernières années par les pouvoirs publics en matière de lutte contre les taudis requiert le soutien inconditionnel et éclairé de l'opinion publique, sous peine d'être vouée à l'échec. Certes, sans cet appui total, des résultats satisfaisants pourront être enregistrés dans telle ou telle localité du pays, voire dans une région déterminée, mais il est douteux que cette action puisse aboutir à la suppression systématique des taudis.

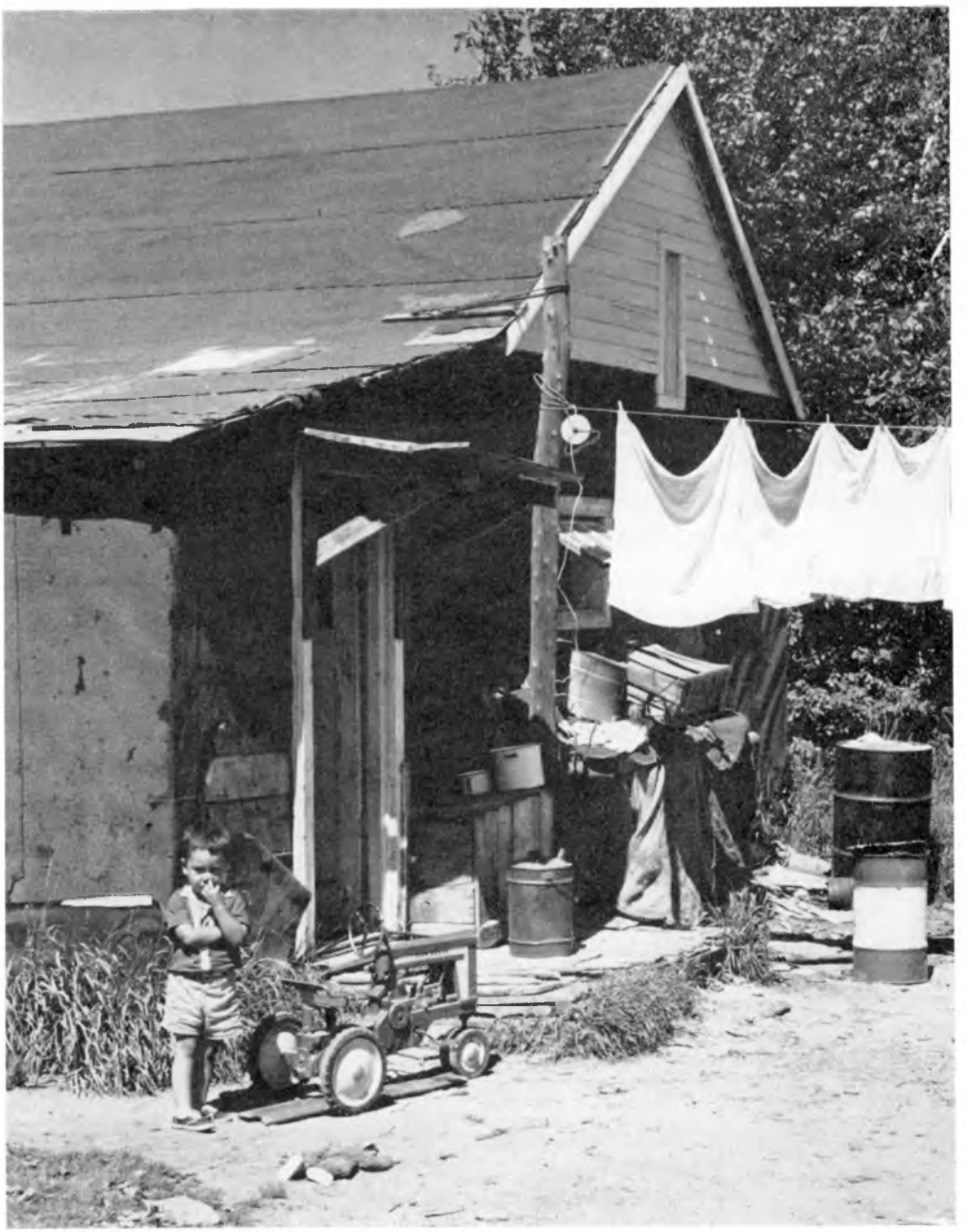
Les crédits nécessaires à l'accomplissement d'une politique visant, d'une part, à l'assainissement généralisé des logements insalubres, d'autre part, à la construction des nouveaux logements sociaux indispensables, ne pourront d'ailleurs effectivement être obtenus que dans la mesure où la population toute entière aura pris conscience de la nature et de l'ampleur du problème, et aura surtout compris la souffrance, le désespoir et la déchéance des habitants des "quartiers maudits".

Cette prise de conscience de l'opinion publique, il faut le reconnaître, n'est pas encore totale; mais peut-on raisonnablement prétendre que le pays ait reçu à cet égard toutes les informations et précisions souhaitables?

Nous ne le pensons pas, car comment alors s'expliquer que nombre de nos concitoyens n'ont qu'une connaissance souvent fragmentaire et même erronée du problème. N'est-il pas courant d'entendre dire, dans de larges couches de la population, que le problème du logement est actuellement résolu au Canada et que, loin d'y avoir pénurie, il y a, au contraire, de trop nombreux logements inoccupés, ou encore que les habitants des taudis sont pour la plupart des inadaptés, des asociaux, des infra-salariés ou des délinquants. Ces affirmations ne traduisent pas la réalité. En effet, quantité de maisons ou d'appartements offerts en location sont souvent inaccessibles ou ne répondent pas aux besoins d'une importante fraction de la population. D'autre part, les enquêtes menées dans les quartiers insalubres révèlent qu'il y a parmi les occupants des impasses ou des rues étroites une majorité de vieux ménages, de célibataires ou de familles nombreuses dont la sociabilité et la moralité ne constituent aucunement un obstacle à leur intégration dans la partie de la population habitant des logements sains.

La vérité oblige à dire que beaucoup de ceux-là ne se rendent pas compte de l'insalubrité de leur logement, ou encore ne sont pas suffisamment informés des possibilités de relogement, à des conditions souvent plus avantageuses, qui leur sont offertes par les autorités municipales chargées d'administrer les logements bâtis aux termes de la Loi nationale sur l'habitation. Il n'est pas rare, en effet, que ces malheureux paient des loyers mensuels allant de $50 à $80 pour une mansarde soi-disant meublée ou pour un baraquement ne comportant que deux pièces, voire une seule, démunies de toute installation sanitaire particulière et du moindre confort. Il est difficile peut-être pour le lecteur de croire cette assertion, mais nous devons vous certifier que ces conditions existent ici même au Canada, au 20ième siècle.

Il faut que la population, qui ignore le plus souvent où sont situés ces taudis—encore qu'elle les côtoie quotidiennement dans les centres de nos villes —se rende compte des terribles conditions de vie qui règnent dans ces maisons de misère: surpeuplement, promiscuité, hygiène déficiente, maladie . . . .



Insouciant de son environnement insalubre, cet enfant en représente plusieurs autres qui seront destinés à grandir dans une aire d'insuffisance matérielle si les aspects discutés ci-contre ne sont pas considérés par les autorités compétentes.

Il incombe aux pouvoirs publics et à tous ceux qui luttent contre les taudis, non seulement de faire toute la lumière sur ce douloureux problème, mais encore de communiquer à l'opinion les résultats des enquêtes et des études auxquelles ils se seront livrés, même si cette information suscite l'indignation. Il est même souhaitable que cette protestation soit la plus large possible, car elle signifiera pour les autorités responsables que la société n'est plus disposée à différer davantage la solution d'un des principaux problèmes sociaux de notre époque: le logement.

Qu'on ne s'imagine pas cependant que le problème soit aisé à résoudre. Il faut en effet convaincre les habitants des taudis eux-mêmes de leur intérêt d'occuper un logement sain et leur expliquer fréquemment en quoi il se différenciera de celui qu'ils possèdent, car ils sont très souvent ignorants de l'existence de logements meilleurs.

Les habitants de Montréal, Halifax, Toronto, Windsor, Vancouver dont les maisons ont été démolies, lors des projets de réaménagement urbain n'ont eu conscience de l'insalubrité de leurs logements que le jour où ils sont devenus les occupants des nouvelles construction édifiées grâce à l'aide financière prévue aux termes de la Loi nationale sur l'habitation, par la Société centrale d'hypothèques et de logement conjointement avec les gouvernements provinciaux et municipaux.

Il est nécessaire bien des fois, de donner patiemment aux habitants des quartiers insalubres les raisons pour lesquelles ils ne peuvent demeurer où ils sont et où, hélas, ils ont quelquefois passé la plus grande partie de leur existence. Cette attitude, qui peut étonner à première vue, est cependant fort compréhensible: ils se sont accoutumés à leur logement, exercent dans leur quartier un métier qui leur permet de subvenir à leurs besoins tant bien que mal, ou encore ont noué des amitiés avec l'un ou l'autre voisin. Ils craignent qu'en déménageant, ils ne deviennent en quelque sorte des déracinés.

Toutefois, l'expérience démontre qu'il suffit très souvent de reloger convenablement quelques-uns des habitants des taudis pour qu'aussitôt la plupart de leur compagnons d'infortune exigent à leur tour la même "faveur".

C'est ainsi que dans certains de nos grands centres canadiens de nombreuses familles habitaient dans des maisons depuis longtemps condamnées. Elles refusaient obstinément de quitter ce qui leur tenait lieu de logement, lorsqu'un ménage consentit finalement à déménager dans une des nouvelles constructions érigées en vertu de la Loi nationale sur l'habitation. Quelques semaines plus tard, tous les autres ménages revendiquaient le "droit" d'aller également occuper un nouveau logement.

Ce revirement s'explique, d'abord, par le fait que ces familles ont pu constater "de visu" que ce qu'elles considéraient naguère encore comme un logement inaccessible pouvait, au contraire, devenir leur logement sans compromettre pour autant les ressources de ménage; ensuite, d'avoir vu l'une d'elles s'installer dans un logement moderne, elles ont pris conscience de leur disgrâce et ont eu envie de jouir, elles aussi, d'un confort jusqu'alors inconnu.

Dans le cas d'asociaux ou d'inadaptés, le problème est plus complexe. Le plus souvent, il est inopportun de les reloger immédiatement et il faut alors se résigner soit à les placer dans des hospices ou des centres de réadaptation, soit, lorsqu'ils refusent d'évacuer les lieux, à faire le "vide" autour d'eux, ce qui a généralement pour conséquence qu'ils se laissent plus facilement fléchir et acceptent finalement de se soumettre à un traitement rééducatif dans une institution spécialisée.

Persuader les habitants des taudis de quitter leur logement est une mission qui exige beaucoup de tact et de doigté, une connaissance aussi parfaite que possible de leur mentalité et de leurs aspirations. Cette mission incombe tout naturellement aux administrateurs des municipalités qui ont entrepris un tel programme de réaménagement urbain et de déblaiement des secteurs condamnés. Bien sûr, ils peuvent se faire assister dans cette tâche par des auxiliaires sociales, des infirmières visiteuses et des délégués des organismes municipaux du Bien-Être Social, mais il est primordial qu'ils se rendent personnellement et fréquemment dans les quartiers insalubres de leur localité.

Intérieur typique de taudis dans lequel vit une famille nombreuse qui doit payer un loyer bien souvent exagéré.

En agissant de la sorte, ils montreront aux habitants des taudis que la société ne les abandonne pas et ils trouveront, au surplus, dans ces visites, dans ces confrontations avec la réalité, un stimulant à leur volonté de poursuivre la lutte contre les taudis. Il est bon que la moitié du monde sache également comment vit l'autre moitié.

L'évacuation des taudis par leurs occupants ne constitue cependant qu'une première phase, qui risque d'être vaine si un décret ou un arrêté d'inhabitabilité n'est pas pris aussitôt ou, mieux encore, si la pioche des démolisseurs n'entre pas immédiatement en action, car les logements insalubres attirent très vite—il faut malheureusement le reconnaître—de nouveaux habitants.

La deuxième phase, qui consiste à mettre à la disposition des anciens occupants des taudis des logements sains et adaptés à leurs besoins, suppose évidemment que les autorités municipales et provinciales ou même fédérales effectuent les investissements nécessaires.

Sans nier l'effort accompli jusqu'à présent, tant dans le domaine du relogement que dans celui de la destruction des taudis, il est pourtant essentiel que cet effort s'amplifie au cours des prochaines années. La Société centrale d'hypothèques et de logement en coopération avec les autorités municipales compétentes se doit de supprimer un nombre sans cesse croissant de logements insalubres et d'augmenter proportionnellement le nombre de logements réservés par priorité aux anciens habitants des taudis.

Montréal possède ses taudis comme toute autre ville qui a grandi hors de proportion. Celle-ci est une de celles qui sont appelées à disparaître grâce au programme de réaménagement urbain rendu possible par la Loi nationale sur l'habitation.

Selon notre système de réaménagement urbain et de déblaiement des zones condamnées, les pouvoirs de la Société centrale sont délégués par arrangements financiers aux municipalités et aux provinces. Ces municipalités doivent donc veiller à ce que leurs nouvelles constructions soient conçues de manière qu'il soit possible de reloger dans un même complexe des familles nombreuses, des personnes seules, des couples sans enfants, des vieux ménages. Elles doivent créer des entités où la population soit le reflet d'une société normale. De plus, il est indispensable que les nouvelles réalisations présentent un minimum d'aménités telles que les centres récréatifs, salles de réunions, garderies d'enfants ainsi que toutes les autres commodités domestiques que connaît aujourd'hui notre monde moderne.

Par ailleurs, il ne convient pas, du point de vue psychologique, de réserver exclusivement de nouveaux quartiers aux occupants des taudis. Cette ségrégation ferait renaître dans le nouvel habitat l'atmosphère débilitante et malsaine qu'ils ont connue. Il faut, au contraire, les éparpiller et les mettre en contact avec des gens n'ayant pas vécu dans des logements insalubres, de façon à provoquer une saine émulation.

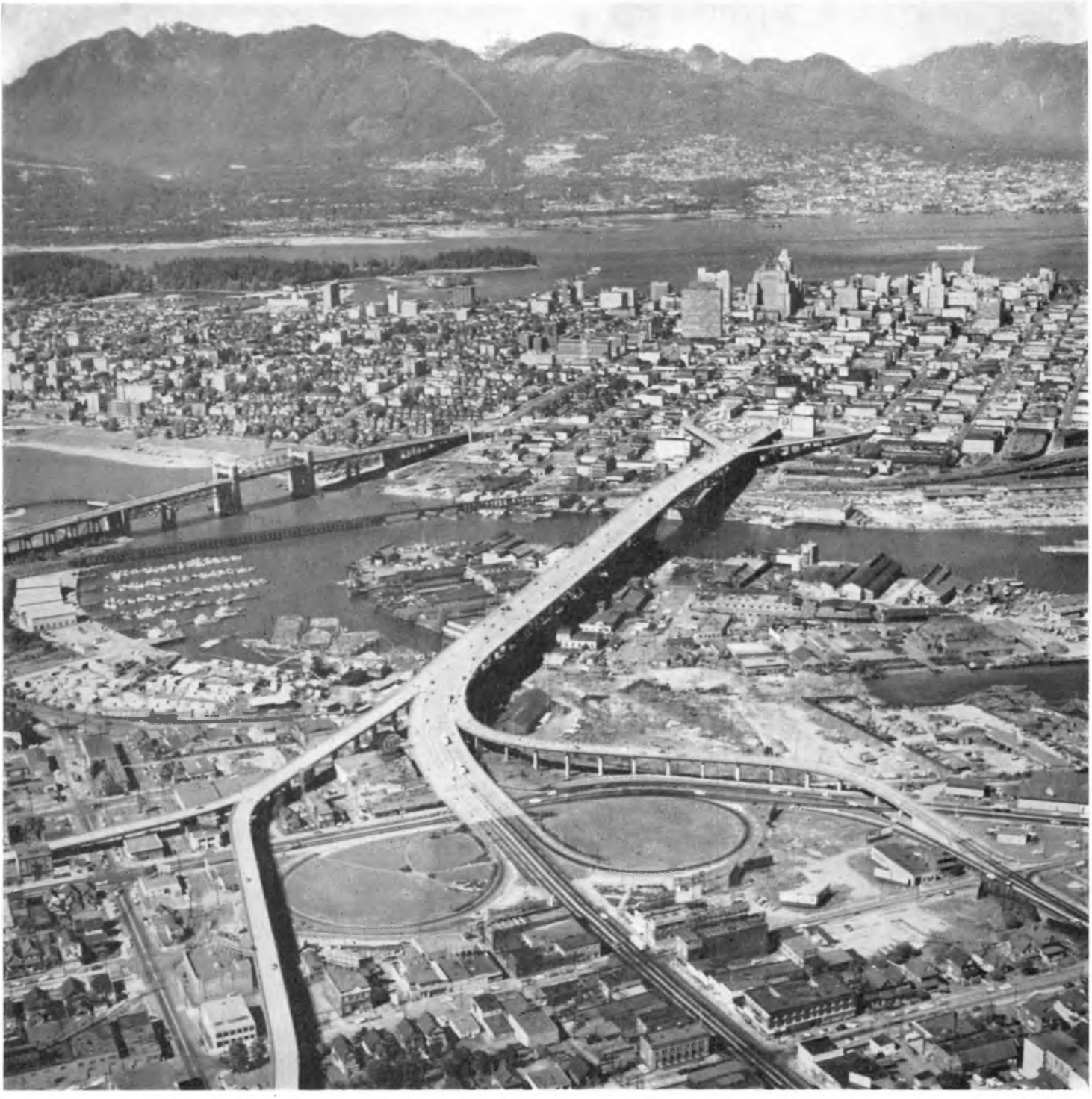
Notre société moderne doit assurer le coudoiement journalier de tous les hommes, sans distinction de fortune, de profession, d'opinion politique ou philosophique. Ainsi apprendront-ils, en se fréquentant, à se connaître, à s'estimer, dans un esprit de camaraderie et de tolérance. La cité qui répondra à cette condition marquera un incontestable progrès humain et social. Ce progrès dénotera un pays où il fait bon vivre. ✦✦✦

Dans cette cuisine, la mère de famille doit préparer les repas de ses enfants dans une ambiance complètement dénudée des principes élémentaires d'hygiène et de confort.

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 133 screen, copper halftones are by Bomac.

CENTRAL MORTGAGE AND HOUSING CORPORATION
SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT
OTTAWA, CANADA

HABITAT



HABITAT

VOLUME VII
NUMBER 3

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class matter by the Post Office Department and for payment of postage in cash.
Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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By devoting this issue of Habitat to the major addresses given by the late Stewart Bates while President of CMHC, the magazine is departing from its editorial policy of only using material written specifically for the purpose. Then again, never before has one man dominated an entire issue.

This is as it should be. Under Dr. Bates' direction Habitat came into being. It was he who chose the title and even with his heavy schedule all manuscripts were reviewed by him. No editor ever performed his duties under easier circumstances.

The the first issue of the magazine published in April, 1958, Dr. Bates in the lead editorial said:

> "The title of this magazine is a word which signifies our interest in the places where Canadians live. It means houses and cities and neighbourhoods and gardens and apartments and streets. It means the places by the sea, in the mountains, on the prairies and on the shores of the Great Lakes. It means the Canada we are helping to build.
>
> We are members of a Crown Corporation administering a large programme involving a great deal of money—the savings of householders, the investment of large financial institutions and public money provided by the taxpayers. For this reason our business tends to be expressed in dollars and statistics and filing systems and that colourless word units. Of course, our real concern is in the dwelling places that lie at the end of this long trail of procedures. Our aim is not another million housing units, but a million places that can be called home with some warmth and affection.
>
> Let us face the not unpleasant fact that the commodity in which we deal is the focus of all the sentiments and emotions of which human beings are capable.
>
> *Half-way up the stairs*
> *Is a stair where I sit*
> *There is no other stair*
> *Quite like it.*
>
> This magazine will serve one useful purpose if it occasionally refreshes our thoughts about the kind of habitat we are helping to build, sharing in some of the enjoyments and, perhaps, trials of those who live in the houses that are built."

But Dr. Bates' intimate connection with the magazine is not the reason why this is his issue. In making a permanent record of some of his statements, we feel we are setting down a philosophy of housing by a man who loved the city—not only the intricacies of steel and brick and mortar but the people who are its life.

✦ ✦ ✦

STEWART BATES, 1907-1964

Stewart Bates died suddenly of a heart attack on May 24th, at the age of 56. This brilliant and versatile Scot served Canada so well over a quarter century that he will be long remembered as a great Canadian who did much to improve both her fisheries and her cities.

The quality of this man was quickly evident in his career. At Glasgow University he won the gold medal in economics and philosophy. After several years of teaching at Edinburgh he was selected to go to Harvard as a Commonwealth Fellow. There I met him as a fellow graduate student under Schumpeter, where he enlarged his outlook and proved his mettle among an international group of scholars at a time when economics was in ferment.

It was natural that a Scot who had grown up in the uninspiring condition of Britain in the 'twenties and early 'thirties should decide to settle in North America, despite the depression from which it was slowly emerging in 1936. The Commonwealth Fund required its Fellows to return to the Commonwealth and thus it was that Bates turned toward Canada. He went first to Halifax as Secretary of the Economic Council of Nova Scotia. He was quickly noticed by Ottawa and served for a time on the staff of the Sirois Commission with Alec Skelton.

The war brought Bates back to Ottawa from his position as Professor of Economics at Dalhousie, and he served as a senior officer in the Fisheries Department dealing with wartime food and trade problems. Immediately the war was over he transferred to general economic work in the Department of Reconstruction under C. D. Howe and W. A. Mackintosh.

When Dr. Finn went to the international Food and Agricultural Organization in 1946 the government had the wisdom to select Stewart Bates to succeed him as Deputy Minister of Fisheries. It proved to be one of the best appointments ever made in the Canadian public service. Canada confronted major problems both at home and internationally in its fisheries during the next half dozen years, and Bates provided skilled and imaginative leadership in dealing with them. He earned the full confidence of the fisheries industry in Canada while planning and giving effect to reforms necessary to increase its productivity and markets. He took a leading part in the discussion and arrangements to bring Newfoundland, with all its fisheries, into union with Canada. His outstanding success in negotiating fisheries conventions and agreements with Japan, the U.S.A., and others —and heading some of the organizations thus created—established his reputation far beyond Canada.

By 1954 Bates had done so much in Fisheries that he was thinking of turning his energy and imagination to some other field, while his demonstrated capacity as administrator and adviser led the government to consider him for other senior posts. Therefore it was no surprise to those of us who knew Bates well—as it was to others —when he was selected to succeed David Mansur as President of the Central Mortgage and Housing Corporation.

He entered the housing field at a time when urban development in Canada was rapidly gathering momentum and creating problems. Bates quickly recognized that the Corporation he headed could be a powerful influence in bringing about not only more and better houses but also better cities and towns. This it has been under his dynamic leadership. His managerial skill has been reflected in the efficient organization and administration of the Corporation itself. His ideas and his eloquence have already appeared in Habitat. Here in this issue they are made manifest again in his own stirring words on the following pages.

R. B. BRYCE,
Deputy Minister of Finance
June, 1964

STEWART BATES, 1907-1964

Stewart Bates fut emporté subitement par une crise cardiaque le 24 mai dernier à l'âge de 56 ans. Cet Écossais à l'intelligence brillante et aux talents variés a si bien servi le Canada pendant un quart de siècle, qu'on s'en souviendra longtemps comme d'un grand Canadien qui a beaucoup fait pour améliorer les pêcheries et les cités du Canada.

La valeur de cet homme s'est fait remarquer dès le début de sa carrière. A l'Université de Glasgow, il se mérita la médaille d'or en sciences économiques et en philosophie. Après plusieurs années d'enseignement à Édimbourg, il fut choisi pour aller à Harvard comme boursier du Commonwealth. C'est là que je l'ai rencontré comme condisciple de Schumpeter, où il acquit sa largeur de vues et manifesta son ardeur parmi un groupe international d'intellectuels en un temps où les sciences économiques étaient en effervescence.

Il était naturel pour un Écossais qui avait grandi dans l'atmosphère froide de la Grande-Bretagne au cours des années "20" et au début des années "30" de ne pas hésiter à s'établir en Amérique du Nord, malgré la dépression dont se relevait lentement ce continent en 1936. La caisse de bourses du Commonwealth exigeait que les boursiers retournent au Commonwealth et c'est ainsi que Bates se dirigea vers le Canada. Il occupa d'abord à Halifax le poste de secrétaire du "Economic Council of Nova Scotia". L'administration centrale à Ottawa ne tarda pas à le remarquer et c'est ainsi qu'il fit partie pendant quelque temps de la Commission Sirois avec Alec Skelton.

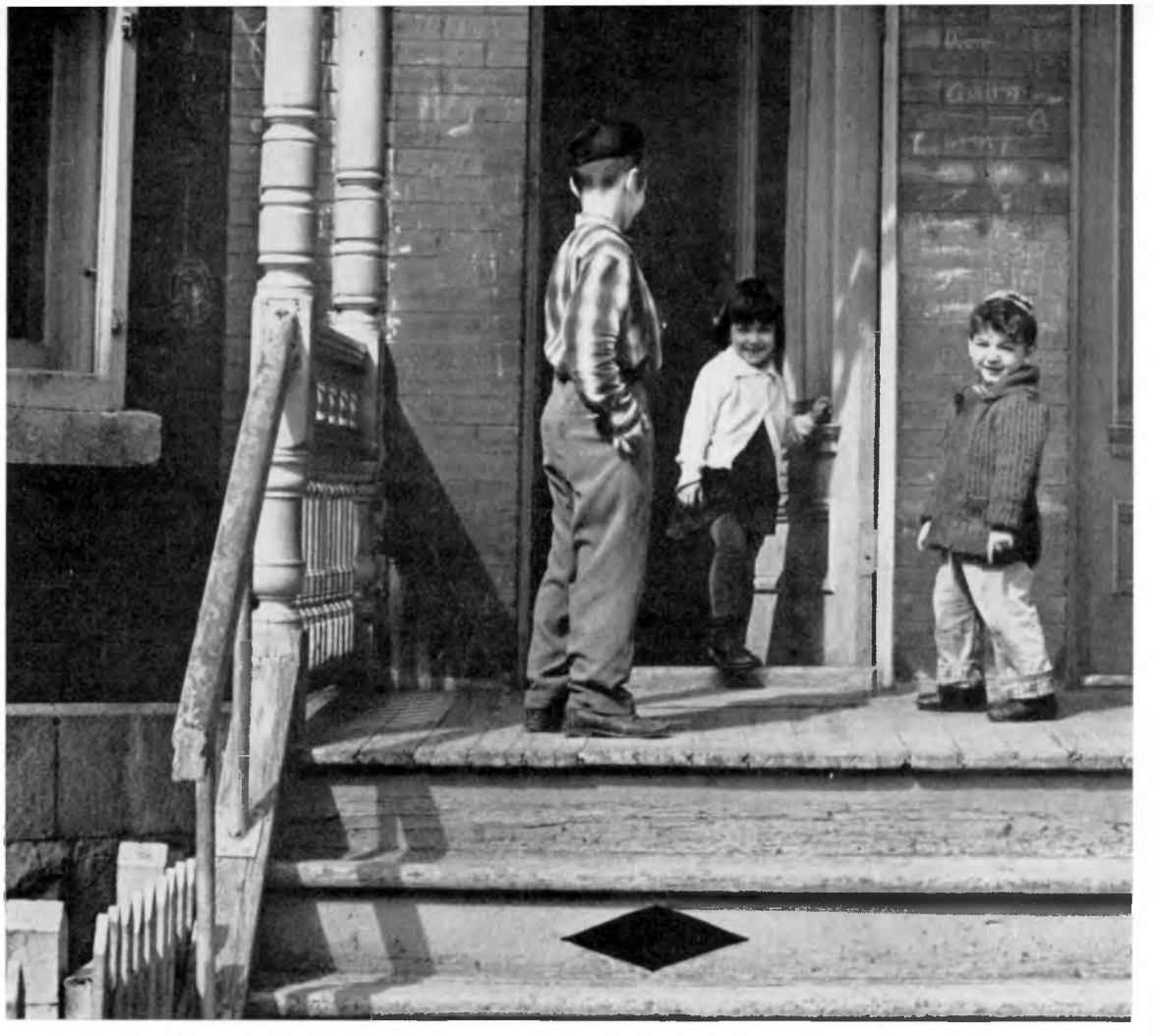
La guerre ramena Bates à Ottawa, de son poste de professeur de sciences économiques à Dalhousie, et il y occupa un poste de fonctionnaire supérieur dans le ministère des Pêcheries où son activité porta sur l'alimentation en temps de guerre et sur les problèmes commerciaux. Immédiatement après la guerre, on l'affecta à des travaux généraux d'économie au ministère de la Reconstruction sous C. D. Howe et W. A. Mackintosh.

Lorsque le docteur Finn passa à l'Association internationale sur l'Alimentation et l'Agriculture, en 1946, le gouvernement eut la sagesse de choisir Stewart Bates pour lui succéder comme sous-ministre des Pêcheries. Cette nomination s'avéra une des meilleures jamais faites dans le fonctionnarisme canadien. Au cours des six années suivantes, le Canada eut à résoudre des problèmes importants au pays même et sur le plan international au sujet de ses pêcheries, et Bates manifesta beaucoup d'habileté et d'imagination pour traiter de ces problèmes. Il se mérita la confiance entière de l'industrie des pêcheries au Canada tout en préparant et en mettant en oeuvre les réformes nécessaires pour augmenter sa productivité et ses marchés. Il joua un rôle important dans les délibérations et dans les arrangements qui furent pris pour amener Terre-Neuve avec toutes ses pêcheries à se joindre au Canada. Le succès retentissant qu'il obtint à négocier des conventions et des ententes sur les pêcheries avec le Japon, les États-Unis et d'autres pays—et à diriger certains des organismes ainsi créés—ont établi sa réputation bien au delà du Canada.

En 1954, Bates avait tellement accompli dans le domaine des pêcheries qu'il songea à diriger son énergie et son imagination vers quelque autre domaine alors que l'habileté qu'il avait démontrée comme administrateur et comme conseiller portait le gouvernement à considérer son affectation à d'autres postes supérieurs. C'est pourquoi pour ceux d'entre nous qui connaissaient bien Bates ce ne fut nullement surprenant—bien que ce le fut pour d'autres—de le voir choisi pour succéder à David Mansur à la présidence de la Société centrale d'hypothèques et de logement.

Il commença à s'occuper du domaine de l'habitation au moment où l'aménagement des villes au Canada prenait rapidement de l'ampleur et créait des problèmes. Bates se rendit rapidement compte que la société qu'il dirigeait pouvait exercer une influence très puissante non seulement sur la production de maisons plus nombreuses et meilleures mais aussi sur l'aménagement amélioré des grandes et des petites villes. Grâce à son dynamisme, la Société a effectivement joué ce rôle. Son habileté s'est immédiatement manifestée par une organisation et une administration efficaces de la Société elle-même. Ses idées et son éloquence ont déjà été publiées dans Habitat.

R. B. BRYCE,
Sous-ministre des Finances
Juin 1964



Meeting Housing Demands

Remarks by Stewart Bates at a meeting of the Vancouver Board of Trade, March, 1955.

I spoke at a luncheon in this room only a few months ago on the problems of the high seas, outlining the current international disputes before the United Nations on questions of territorial waters and the continental shelf. I spoke, I trust, with assurance and conviction—at least the conviction that not many in the audience could question the exposition! Today, after a few months acquaintance with the subject, I am to speak on housing, again with assurance and conviction—the conviction that many here (compared to me!) know much about it!

Since I entered this occupation with what your Honourable James Sinclair has, in another connection referred to as "a virgin, unsullied mind" perhaps I should start at my beginning, at what sullied me first in housing. Although I have lived in houses since birth, I confess I previously paid little attention to them as a technical apparatus for living in. But looking at houses now, with a partially sullied mind, I find them exceedingly complex—almost as complex as our biology.

When we first look at a house architecturally, we see that it has to be many

things to a family, within the compact space of 1,000 or 1,200 square feet. It has to serve the same functions as does a hotel, a restaurant, a school for children, or even a library, a wholesale and retail storage for food and more durable goods, a heating plant, a recreation hall, a beauty parlour, a nursery, a hospital on occasions, a reception place for guests, and if you have T.V., a cinema, and more. To try to do each of these well in a house made with human hands, is perhaps asking too much.

And because houses, like persons, do not usually exist in isolation, the freedom to do what you like with your property, as with your personality, has to be compatible with other people's freedoms. So that the house has to fit certain social standards in most communities and there are zoning restrictions and by-laws to impose minimum standards. In short, a house is part of a community. And because it is at the same time so intimate a part of everyone's life, social and economic problems surround it as well as architectural ones.

The individual house, as a complex, is as difficult to understand and simplify as the human hand itself. Mankind has not yet been able to make an artificial hand as effective as nature made hers; although his ingenuity may soon make its mechanical equal. I doubt if as much human ingenuity has yet been applied to the solution of the house complex.

That complex has five aspects:

(*a*) The house is a piece of architecture—a unit designed to meet the needs outlined above. Until quite recently the architects of the western world may have been too preoccupied with commercial and industrial design, with schools, hospitals and the like. This situation is changing, and in some parts of the country, changing rapidly. In 1955, in Metropolitan Toronto, almost all subdivisions will have been designed by qualified architects—builders are paying more attention to design. Probably most of you would agree that the traditional Canadian house, as a piece of architecture, could generally be improved. This is not saying too much, and is not suggesting that we expect the loveliness of a Greek temple or the opposite loveliness of a Gothic cathedral. It is simply saying that only some of our houses may approximate what those with an architectural conscience would call "good design", but these do not predominate in our housing stock. There is evidence, however, of new interests in design on the part of builders, and likewise new interests by architects in housing, especially in subdivisions.

(*b*) The house is, secondly, an engineering, a manufacturing and assembly task. Until recently the engineering job has been quite traditional—hammer and nails on the site, with the various trades coming on to the job at their appointed time. Still today the bulk of the houses are put together by small builders. While the manufacturers of gadgets and parts have made innovations in their products (from furnaces, to stoves, to sinks, to lighting), it can hardly be argued that the great economies of mass production have reached the building industry. No matter how many stage-coaches were added together, they could not make a railroad: that required a new technique. The revolution in house engineering techniques is perhaps now with us: it is under way. People's concepts of what a house should look like may have to change somewhat, if the revolution in engineering techniques is to proceed apace. The building industry, unlike say the chemical industry, has still to find its laboratories and experimental pilot plants. Nevertheless, in recent years the National Research Council of Canada has established a Building Research Division which more and more is trying to find answers to the engineering task. As compared to the United States, our house building industry, and quite a large part of the industries supplying materials for housing, exist on a comparatively small scale and in scattered form. Hence the need to gather together, under Government sponsorship, for initiative in research; hence the need also to provide a Government substitute for the big industry research that is found elsewhere. The important thing is, that new construction ideas and design development are becoming more evident.

(*c*) A house is, thirdly, part of a community in most instances. The effective planning of communities is however, still more an idea than a fact. The truly effective planning of a community should of course take place at its inception. That is not always possible,

but where it is, full advantage should be taken of the opportunity. I suppose the most recent example in British Columbia is the planning of the town of Kitimat, where the new town does provide an opportunity for preparing an overall concept of growth, in which the new town can properly expand, and in which the embryo can foresee its future in perspective and in imagination. (As a Canadian, my only regret about Kitimat is that American town planners were employed. Our own planners seem to me to be quite imaginative, quite competent, needing only a little more recognition by their countrymen.)

In most cities however, growth has been somewhat haphazard and in such instances the planning has to confine itself to regrowth or renewal. About fifty years ago the idea that slum clearance would be a good thing began to permeate the intellectual layers of European society—including some clear-headed municipalities and states. They began to replace *old*, cheap housing with *new*, cheap housing. More recently the idea of slum clearance widened to a concept of "urban redevelopment"—to the idea that the older parts of cities could be refashioned; obsolete areas could be cleaned out and given new uses—for housing, for modern commercial buildings, for parks and throughways and even for parking space. Still more recently, and indeed currently in the United States, the concept has widened still further, and the present phrase is "urban renewal." It begins from the view that a city, like a factory, begins to run down. Private enterprise prepares in advance for the depreciation, repair and replacement of its factories. But public bodies seldom make similar preparations for cities. And so areas become blighted. Congestion can accumulate without proper corrective action. Better civic housekeeping of this kind requires, of course, an informed public opinion. It requires each of us, as citizens, to take as much pride in community layout as we do with our own gardens—a tall order. In several cities of British Columbia and in a few—perhaps too few—in other parts of Canada, town planning staffs are being added to the municipalities, and their skill is valuable either for new towns or for planning the regrowth or renewal of old. Their skills are more than valuable, they are elemental and necessary. In addition to these technical staffs, good work is also being done by the still-young Community Planning Association of Canada. You have in Vancouver, I am happy to say, much enthusiasm and more than usual ability in these things, in your branch of the Community Planning Association and in your Vancouver Housing Association. They need the continuous active support of organisations like the Vancouver Board of Trade, which can express the views of those in the community and which do have a strong civic pride.

(*d*) A house has, fourthly, a social function. Unmistakably, it contains a welfare concept. No one would deny that environment has strong influences on growth. The house is the environment of the child, the mother and the family; and an improvement in that environment does seem to have effects on human personality. Police activity, fire losses, welfare costs, health costs and malnutrition are all higher in the poor housing areas than in the more fortunate parts. Removal from a squalid environment tends to raise ambitions and productive powers and to improve the standards of existence. The unconscious protest against environment that leads to social degeneracy is lessened.

Good environment has humanistic qualities perhaps more important than the aesthetic ones, and it is these humanistic qualities that present the positive argument for Governments interesting themselves in public housing. The successful business of a great city depends on its level of citizenship and the skill, the zeal and the ambition of its population; it is out of these that the social ambitions and the high productivity of a go-ahead city emanate. Good housing is not the only stimulus to effective work, but it is a stimulus. A progressive community cannot afford to have a part of its working force struggling against the physical and moral frictions of daily living in poor housing. This is a positive argument, a fundamental justification for public housing and for securing the basic interest of Boards of Trade in housing. It is not merely costly to pay the remedial welfare charges for slums created. It is bad business to neglect the returns

that good communal living can provide.

(*e*) The house is, fifthly, an economic problem. That is true for each one of us. We would all like a house, some of us a better house, a well designed house, a house with a view, a house with a garden, a house with all the conveniences—if only we could afford it. In Canada even a modest private home requires a fairly substantial income to carry the payments of principal and interest and taxes. It requires too a fairly substantial down payment, in the eyes of any family earning less than $4,000 per year. Accordingly not too many people in that income group, unless there is more than one wage earner in the family, can afford to own a house.

All five parts of the complex are like the five fingers—they can be made to operate and to advance independently, and they can be made to act in relation to each other. All five aspects of housing are interrelated. If the engineering task could be revolutionised and houses made cheaper, the economic aspect would be less acute, and more and more people with annual incomes of less than $4,000 could become small home owners. If urban redevelopment took place in obsolescent areas of our older cities, the economic and social problem would be less great. Or if the Canadian national income rose by another 10% or 20% in the next five years, more people could afford new houses at the present costs, and more municipalities, with their subsequent higher revenues, then might be ready to face the urban redevelopment problem. And so go the intricate relationships of the various aspects of the complex.

You can look at housing from any one of these five aspects. If you concentrate on only *one* of them, your idea of housing needs will differ from that of persons looking at other aspects. When your Board asked me to speak on "Meeting Housing Demands", what did it expect to hear? I can merely say that *all* of these five aspects are factors affecting housing demands—demands by individuals, by municipalities, by agencies providing homes for the aged, by industrial companies developing new towns, and so on. The demand picture is directly related to the five factors, and it can be greatly affected by better design or better engineering, better town planning, better social environment or better economic conditions. All five are independent variables. An upward movement in any one of these will increase housing demands. For example, technical engineering innovations will lower costs of housing, and extend the demand. A change in two of them would affect housing demands still further: for example, lower cost and a simultaneous rise in the national levels of income. A change in three of them would go still further in increasing demands for housing: for example, lower costs, better incomes, combined with public clamour for urban redevelopment. This latter situation would see a stimulus of new activity both on the periphery of cities and in the heart of cities.

On the other side, if the five basic factors all remain unchanged, or continue as they were in 1954, demand cannot be expected to increase very much in the near future. If the building industry does not improve its productivity and costs, or its designs, if cities take no new interest in community planning, if social services remain at present levels, and if the national income remains unchanged, where is any substantial new demand to come from? If there were no change in any of the five variables, you would tend to retain the status quo, and the demand for new housing would depend then almost entirely on the rate of family formation.

Someone may reply that we have over 300,000 families in Canada not maintaining their own households, that is, they are doubled up somewhere. Another may point out that 400,000 homes stand in need of major repair. These are no doubt fair measures, and may represent some of the facts; all I am saying is that these families will remain in these conditions *unless* there is a change in one or more of the factors I have singled out—unless there is a change for example, in the upward movement of income, or in public concern over social welfare, or perhaps a substantial revolution in building techniques that will greatly reduce the cost of housing, or in some combination of these.

There remains something to be said about how improvements in design might affect the demand for

housing. The answer to this I don't know. But I feel sure that had the automobile industry been content to continue building the Model 'T', there would be fewer cars on the roads today. That industry knows full well the effects of new design on the demand patterns. They know how to ring the changes and how to strive for new quality, new performance, new looks.

A house, once built, is so permanent, so immobile compared to a car. This might lead us to expect that greater care would go into its design, into its on-site plan, into its engineering and into its environmental qualities for good living. Yet, until recently, that happened seldom. Some buyers have, it seems, less concern about their house design than their car design. Although his house may be the largest single purchase he ever makes, you may find him in a new subdivision on a Saturday afternoon, deciding to "take that one" with little thought for these things, and with, I fear, less enthusiasm and thrill to the purchase than when he buys a new car. Why is this? Is the house buyer really apathetic? I doubt it. Or is it that he has so seldom seen a really well planned community and subdivision, a really well designed house, that his taste buds have remained undeveloped?

Since 1945 family formation in Canada went up 22%. The housing stock has barely kept pace. Perhaps the buyer, in recent years, has had little chance to exercise choice in his house buying. But now, in Toronto and elsewhere, builders are paying more attention to design than they had to in the past, and the widespread use of architects in subdivision planning and control marks a new, hopeful phase in house construction.

These, as I see it, are the five factors that determine the housing situation at any moment—the state of design, the engineering or production techniques, the community's vision, the social atmosphere, and the economic situation. This may be something of an over-simplification, but perhaps that may be excused in one so new to the scene.

When you look at the complex in this way, and look at the instruments available for developing the five conditions, and for integrating them into a unitary, progressive programme, you cannot but be impressed by the National Housing Acts (and they were none of my doing!). The present National Housing Act has within it a whole battery of means for aiding progress in any one of the five, and for integrating the whole into a comprehensive progression.

But only some parts of the Act have worked with full efficacy. The number of new houses built since the end of the War is some 800,000—a striking performance. A quantitative expansion like this was necessary: but that alone does not measure the breadth of the National Housing Act. It had objectives beyond this, and some of these have been less spectacular in application.

This building achieved since the War was perhaps the easiest part of the task. It required for its success an ample flow of mortgage money, good economic conditions, and an expanded construction industry. There were deterrents to progress—shortage of materials at times, extension of municipal services to new city frontiers, and the like. Nevertheless, private enterprise saw to the expansion of the construction industry, and the National Housing Act was changed from time to time to increase the flow of credit—the 1954 Act bringing in the commercial banks as lenders, lowering the down payment and extending the amortisation period. So successful were these operations that every city has spread into its adjacent farmland—and land costs have consequently soared in speculation.

But in design, in building technique, in community planning, in urban redevelopment, change has been slower. Some results there have been, some progress has been made. We have seen improved housing developments—Fraserview in Vancouver, Don Mills in Toronto, Wildwood and Silver Heights in Winnipeg. These are not all comparable, but they do show progress. The Community Planning Association has been born and is already exerting influence: many cities and provinces have set up town-planning departments. Urban redevelopment has gone ahead in Elizabeth Street, St. John's, Newfoundland, and Regent Park in Toronto. The productivity per man in the building industry has increased in recent years. Progress has been made—but not striking progress as

in the volume of new houses.

To get improved housing design you not only need many good architects and many good builders, but you need practical business arrangements for them to collaborate as partners in the industry: and this is now happening in some places (e.g. Metropolitan Toronto). Also you need a discriminating, demanding public able to distinguish what is good from what is tawdry. But you cannot expect the consumer to demand the best until public interest has been whetted by seeing some excellent work in subdivision, layout and house design.

Or take the matter of improving building techniques, the engineering problem. Up till now, the construction industry has been able to sell the kind of houses it builds at satisfactory prices to itself. The kind of competitive pressure that drives industry to do new things, or to do old things in new ways, has not been strong. Research and experimentation in new things and new ways have been much less than in any industry of comparable national significance. But here too change is evident, and the building industry in 1955 will reveal new efforts in these directions.

Or take matters of community planning, or urban renewal, or clearance of blighted areas: here three levels of Government are involved—the municipality, the province and the Federal Government. The National Housing Act provides, in some instances, as much as 75% of the cost of projects. Yet surprisingly few requests have come from municipalities and provinces. Clearly it is not the function of the Federal Government to initiate such projects: under the constitution such matters of property and civil rights rest with the municipalities and the parent governments, the provinces. The lack of public request for urban redevelopment may be, like the lack of demand for good design—that they have not yet been clearly shown what redevelopment can do. Again, of course, the need for redevelopment varies between cities: the older the city, like the older man, the more likely is it to suffer from disease. It may be that Canada has been passing through a phase that is about to end—the phase in which municipal attention has been so engrossed with the problems of periphery expansion that the centre has been neglected. In many cities you can see the peripheral areas absorb attention, with their trunk services, schools, churches, shopping centres: with it you can see down-town churches grow thin, the motels cutting into the hotel trade, the shopping centres draw off trade from the high rent downtown stores. It may be, therefore, that new and increased attention is about to be given to the problems of the centre of cities—problems that affect every business man in town. Urban development, with renewal and refashioning of the old, is perhaps closer than we think. The problem is there—but whether public opinion is ready to face it is another matter.

When you look at these five aspects, the five fingers, I think you will agree that public opinion is really the nerve that can make the whole hand work as a hand. It can articulate the mechanical function, and like the human hand, which is used for expression of gesture and greeting, it can express the social gestures of architecture and planning.

I have refrained from making much reference to the present volume of residential construction: but not because it is not significant—it is. In Canada as a whole we reached a new production peak in 1954; and the prospects for 1955 are equally encouraging. In your own Province, the volume of residential construction increased by 35% in two years' time,—a remarkable expansion. For this credit must go to your local mortgage lenders and the provincial building industry, and to your architects for their new and better housing ideas. The fact that I have not stressed this feature is not due to lack of understanding, or failure to recognise the significance of these efforts. I have instead wished to try to envisage the housing situation in its entirety. At the beginning I made some reference to the high seas. There, as you know, there are separate layers in the ocean; separate layers of currents, temperature and life. When we look at the sea however, generally it is the familiar surface that our gaze has to stop on. Ordinarily, I have been inclined to look only at the familiar surface of the subject of housing. Here, I have been trying, in a preliminary, elementary way, to try to look into some of the underlying phenomena as yet little explored. ✦✦✦

An address by Stewart Bates
to the Town Planning Institute
of Canada's Annual Conference,
November, 1955.

THE NEED FOR AN IDEAL

You have suggested that I talk to you on "The Need for an Ideal". This is no easy assignment. In any subject, it is not easy to find the ideal, and still less to express it, as the modern world seems to ask, in some simple slogan. Even for life itself it appears difficult to find an ideal—or at least one on which we are all agreed. No heroic race would shrink from grief and woes, were it only assigned a noble task. But nature prescribes no tasks. She calls for no volunteers. She points willing climbers to no Everest. The discovery of the goal—the most difficult of tasks—she leaves to us. No road signs are erected by her. You choose your own path, uncounselled, at your own risk. Life is a unique experience, not to be purchased even with money. Yet, with this pearl of price, we know not what to do.

The search for life's ideal has exercised many men at many times and in many places. To find an ideal for town planners may appear much less difficult. But this will depend on how you define the subject itself. If the definition is made narrow enough, or if we think only of some part, like traffic management, no doubt an ideal can fairly readily be found. But the subject merits no narrow definition. I

am going to frame it widely, and as an ideal I am not offering you a design. The purpose of town planning is no less than the achievement of a workable and inspiring setting for life itself: that is what I am going to suggest.

Two relations have always interested men, the relation between man and nature, and the relation between man and society. The latter relation still vexes us politically because of the inherently opposite processes in man on the one side and society on the other. Neither man nor society can live without each other: it is an unending marriage. Yet there remains an endless flux between the individual's need and feelings for freedom, and society's need for collective actions and responsibilities. And this age-long argument reflects itself within the modern city, whether that city be Tokyo, London or Toronto. Man adjusts himself to the city and at the same time tries to adjust the city to his purposes. The city itself is the instrument through which these adjustments of man to society are well or ill made, as the case may be.

The growth of a city has the same opposite processes going on. It reflects the search for individual freedoms on the one side and the imposition of conforming actions and manners on the other. It is clear that this is not easily planned, in any overall sense. We have abandoned the term "planning" in most of the social sciences. Perhaps the term has unfortunate overtones in the public discussions of town planning. It makes the process sound too simple or too bureaucratic.

In part you are bureaucrats, committed to the daily task of moulding things into standard and uniform patterns. But in part also you are designers and humanists trying to release people from the tedium of the mass-produced city. These aims are no more in conflict than are sleeping and waking. Your codes and standards cannot remain dormant or they will add to the sterility. You are doers of daily things, but also thinkers of future things, moulders also of things to come.

The city, as a concept, should not be oversimplified. It is a social complex—out of geography, economics and history, containing within it the decisions of nature herself and those of myriads of men, many long gone and many of nationalities other than our own. It is certainly a rich complex. If we look at the modern city as outside observers, as superior spectators, we must admit that the city, seen from the stalls, makes a fine play. The theatre is an imposing edifice with its high towers, its many splendours, its great varieties. The scenery is excellent, the plot is intriguing and full of incident, the characters numerous and charmingly varied, the acting wonderfully realistic and convincing. To disapprove of the modern city as a spectacle is to be hypercritical, although one admits that the spectacle excites both wonder and disgust. As a passing show it leaves little to be desired and is probably as well worth seeing as any other staged in the Universe, either now, or in the recent or remote past.

We are, of course, not always observers. We are not looking at it through an opera glass. We are doers and sufferers on the stage itself, and there we feel its tensions more keenly, sometimes even sharing its delirium. Often it appears a smoking whirlpool where there is small standing room for logic. In this cataract, in this bewildering commotion, our mortal minds are a little aghast. And if you, for any moment, allow humanitarian ideas to enter the mind, the city immediately shows another aspect: a hateful scene of vice and violence.

Human thought trying to envisage such a miracle has an inherent weakness. The thing is too variable, too dynamic, too infinite in its aspects to be easily comprehended. Unless these features can be pigeonholed and docketed into parts of the whole, we cannot truly grasp it, and so we resort to talk of occupations, habitations, recreation and transportation, as if the total of these made up the city.

Please do not ask me to give a unified vision of the city that the city itself will not provide. It provides disunion, separateness, multiplicity, incessant change—a kind of chaos with everything at odds, one energy against another, growth against decay, men against men. It is indeed tempting to over-simplify this kind of organism—not made with the marvellous hand of nature but only with the apprentice hand of man.

This social complex cannot be idealised in a single notion. Despite the armchair philosophers, the relations of the One and the Many are not so simply drawn. You cannot think of the modern city as if it were an enlarged copy of an English village. Its mere size creates new kinds of opposites in wealth and poverty, virtues and vices, freedoms and frustrations. Before I sit down surrounded by the good books on this subject, to read the attractive essays on aesthetics, I am sure I should walk abroad more through the cities and accommodate myself to their bewildering variety. How pale some of these book drawings appear beside the passions and intrigues, the hatreds and ambitions, the glitter, the pageantry and poverty of the vast city. The books seem to avoid some of this, indeed, they seem to prefer the lukewarm emotions. The model cities have a preference for the decencies—perhaps even a preference for the tepid.

Probably before being committed to any theory, we should, after the manner of the artist, make some preliminary studies. Perhaps get views on town planning from angry souls in underground dwellings, from the cynics, from those who have to undergo the risks of driving after a night of roistering and carousing, from those who like quarrelling and gambling. Perhaps if one wishes to know the city, one should enquire into its luxuries and frivolities. Where the heart is, there the money goes.

Clearly, there are many aspects of city life to be considered. I mean that cities—their temples and cathedrals, statues and factories—have not all been built by saints. The rough riders have had a hand in it too. The city is a social complex to be seen through many eyes.

But if that were not enough, the scene refuses to stay still long enough to be photographed by these many eyes. The city is never at rest. Like the sea, it is untamed, moody and capricious, and contains many forms of danger to body and soul, and many forms of death to body and soul. Like the sea, the city can lay a spell on you. It too has its sheltered lagoons and quiet havens. It is in eternal flux, filled with ceaseless hostilities and ill-made compromises. Within it, the lovely has no priority over the vile, nor wisdom much advantage over folly. The most compelling feature of all this complex is that it lives. To alter it, to shape its history, to help direct its many undertakings, is difficult. The city is a heritage which no generation has a right to exploit. It has to be restored, re-created, refashioned for present and future enjoyments. And your profession has a hand in the game.

The perfectibility of the city is not too difficult to imagine. Miracles, once the province of the Church, are now performed by the State. We can be sanguine enough to believe that the State (Federal, Provincial, Municipal), can perform a new miracle on the cities. But what miracle? The new Garden of Eden will be decent, safe and sanitary. There will be good roads and lots of parking places wherever you stop. Water, sewage disposal, sanitation, humane slaughtering will all be adequate. There will be unstinted soft drinks, both on television and in the shopping centres, and the best of school buildings, free concerts and libraries. The materials are easily put together. But will there be far horizons and invincible hopes? Men, in all times and places have had thoughts beyond this materialist kind of Utopia—thoughts that wander through eternity to projects unattainable in time. The world's griefs are not just economic. It is fairly easy to see how to fill the world's empty stomachs. But consider the more intricate problem: the filling of empty hearts.

Can we think of our cities in such terms? Or are we indeed so reformed that we see men sitting for ever at their bungalow doors, festooned with honeysuckle, with the refrigerator filled with beef and beer? Such an orderly world is not to everyone's mind. Some would prefer a disorderly world as vastly more interesting. The last and greatest insult one can offer the human race is to regard it as a herd of cattle to be driven to your selected pasture.

Must we look forward to wholly conventional living in our North American cities—lives all alike, like a colony of ants, in standardised buildings, standardised subdivisions—places where all men think the same thoughts and pursue the same ends? This is the kind of ideal that seems to prevail among us—governments, builders and planners. This is the sort of environment we seem to want for ourselves and our

children. If environment has any influence on character (and you had better agree with me that it has, or your profession becomes pointless or no more than a mere engineering operation), the one we seem to be providing has severe limitations. It seems aimed at diminishing the individual. These subdivisions look like a calculated attempt to imprison the human, to force him into a mould that you or we or some builder or some architect thinks good. I have enough faith in the human spirit to believe that on this rock of regimentation, of standardised existence, the poorer plans will eventually shipwreck. There is a rebel in every man. Sooner or later, the individual and the nation have in the past refused to surrender themselves to a dictated felicity, to satisfactions chosen for them. There is, happily, in mankind a broad range of vision, a passion for ideas and ideals far removed from the immediate surroundings. As well as this vision there is happily too, a natural love of the lovely. And these two gifts are always ready to prevail.

It is these simple things that give point and purpose to your profession. If you help produce a good environment, men will recognize it, admire it, want it, and will ask you to produce more. These two basic qualities—men's range of vision and the love of the lovely—are always there, waiting to be satisfied, waiting to be stimulated. By birth, men are in some part artists and fashioners of worlds. It is this very romance of life that presents you with the golden chance. The environment of our cities, however great the spectacle, becomes more and more dehumanized, depersonalized. The cities and the suburbs more and more seem to show a lack of vision, an unawareness of the lovely, an air of having given up the struggle for the best. The cities of the Western world reveal the malady of our times—the malady that little seems worth attempting, the attitude of "I couldn't care less".

We are all creatures of our time and country. Each of us would be a different kind of individual had we, with the same minds and bodies, lived a thousand years ago. In our time, however, we have seen empires dismembered and destroyed. We have witnessed the collapse of ancient monarchies, the flight of kings. New Caesars have come and gone. We have seen materialize out of the unintelligible books of a scholar named Marx an idea that rent the world.

Of perhaps more significance, and alongside all these, we, in our time, have seen the final emergence of a new religion. We now present ourselves at the Vatican of Science and it promises a hell-fire here on earth that surpasses the hereafter vouchsafed for sinners only by the mediaeval church. But the new religion does not satisfy. Has it anything to say about justice and injustice, about the beginning or end of things; anything to say about the destiny of the human race, about ethics or conduct, about international relations; anything about human will, about love and hate, and revenge? The Vatican of Science is surprisingly silent on all these.

Is it any wonder that our world suffers disenchantment, that the divine arts are partially subdued by disillusionment, that our times express a weakening of thoughts and feelings, our structures and ways a decline of humanization?

This phase will shortly end, as it has before, and a springtime of enthusiasm will refresh us again. People will get bored with disillusionment. They will realise that integration takes more intelligence than analysis, and that we have to spend more time again on the former than on the latter. They will not continue to let their brains go to their heads. Thoughts and emotions will again have a place; they will be condensed and made effective again, and hope will spread. In your field you have had, for example, Gropius. That wild swan, the human soul, has revealed through him a new faith, a new set of tendencies in our time, a new emphasis on the positive values of life, a new sympathy with man and nature. And he is not alone. This kind of work is the struggle for the best. But even more important, it is not an ideal on paper. It is being achieved. You can be confident that human nature is such, in its vision and in its loves, that it will quickly recognize the improvements you make. Men, and much more so, women, constantly dream and plan how to improve their surroundings. They need help, and the time is as ripe for you as it was for Marx in a different way. It is ripe for the humanization of the cities and the suburbs.

Major achievements are awaited from you. On rare moments in human history, men have felt a breath of summer air. Life has seemed full of zest, overflowing with exuberance: men seemed ready to welcome all company and every undertaking with huge delight: they pushed their fortunes, took risks and acted with conviction. This time will come again. Our modern, highly ordered environment, its standards and its ways, fail to encourage such verve and such spirit. Perhaps you have a major social responsibility to help change this. Nothing has been accomplished by resignation, by the willingness to put up with anything. If you hold states, civilizations, arts and sciences worth the building, your profession has to enter the field of battle, and be prepared to add something new to the capitalized experience of the generations that have gone before us. You will make errors, but you will work wonders. You will fight the tedium, the ugliness, the narrowness, the commonplace business approach. In short, you will recreate a humanization of the cities and the suburbs. That is your contribution to the great experiment of existence; that is your duty, to see that this experiment continues, and on a new and grander scale. For success, governments, people, firms have to be convinced that the end, and the means you find towards it, are worthwhile: and they will be convinced, as each success you have finds its quick admirers.

This puts a high responsibility on planners. You appreciate that I think of you not as mere engineers, mere architects, mere social workers. You are and must be, a team of all these, but you must be more. "You cannot make war with a map", said Chatham. You cannot make town plans with a design either. Your purpose is no less than the achievement of a workable and inspiring setting for life itself, for all its infinite variety. "We must not obey", said Aristotle, "those who urge us, because we are human and mortal, to think human and mortal thoughts; in so far as we may we should practise immortality, and omit no effort to live in accordance with the best that is in us." In short, I expect you to so help alter the setting of the second half of this century that we may seem as interesting to the gods as they are to us.

In thinking of your daily practice, perhaps of the subdivision that you have to plan tomorrow, these remarks may be less than helpful. They are a reminder, though, that your profession has to be one of high endeavour. The subdivisions, the bungalows, the streets last for a long time, far longer than most articles in current production. Your profession therefore has a responsibility for looking farther ahead than most. Mankind differs from the rest of God's creatures in that he frequently works for a future he will not see. This requires faith and hope on his part, and charity on the part of the next generation—faith and the hope that you can produce something that will look worthy fifty years from now, and charity from our successors when they appreciate our efforts to serve their unknowable ends. This is obviously more than a matter of patterns of streets and the like: these designs are the final instruments through which the ends are achieved, and these instruments should emanate from the elementals themselves. Good town planning is not simply a matter of brainwork: it is essentially one of thought and feeling, suffused with the love of humanity and the love of freedom.

I agree that it is difficult to plan a single subdivision with such thoughts in mind. It would be more satisfying to plan a new town or replan the whole centre of a city with such long-range thoughts. True, and public opinion has to learn that this is so. Then you will get the chance to do the larger projects, to infuse them with humanism and to leave a better, more hopeful heritage. This does not mean that the small subdivision is not worth treating with high seriousness. It is. You are the doctor diagnosing the individual case and making your prescription for the town councils or other elected persons. That prescription must not come from a partial diagnosis only; the health of the whole man has always to be considered. The partial pattern of a town has to be seen with the whole, not only for today but into the future. The abbé who tended the famous pictures in the Vatican for fifty years, and who had seen his friends and acquaintances one by one leave this life, reflected that the Michelangelo paintings were after all, the real substances, and we were but the shadows. Your profession has a work of some substance ahead of you! ✦✦✦

Stewart Bates to the Royal Architectural Institute of Canada, May, 1957

Architecture and Housing

I congratulate the Royal Architectural Institute of Canada on having reached its fiftieth jubilee. Greetings to you from Central Mortgage and Housing Corporation—another institution, like yourselves, that is in the business of building cities. The cities are growing and changing and will continue to change and grow. This human theatre is here with us. It has its stage, its settings, its colours, its fabrics, its plots, its intrigues. Within it is all of nature's vast frame and the wide web of all human things. You and we are both vitally concerned with it, not so much with the plot as with the whole theatre itself, and the staging of all its plays; together, we are in the business of building cities.

Today I speak to you in no official capacity; merely as an observer. Like you, I too am in my fiftieth year. The thought of the past half century breeds in me a sort of perpetual benediction. Given a choice of birth—the time, the place, the nationality—I can think of none better than that in which I have reposed —except perhaps, to be born now in Canada, where to be young is very Heaven!

Our fiftieth anniversary merits a brief look behind over that immortal sea of things that brings us here today. We should look before and after. Our brief experience behind us, and our imaginings ahead, together give us the master light of all our seeing.

Before embarking on this, let me make a simple statement. I believe that in part, you, as architects, are limited by the nature of your market. The man who pays your fee can call your tune. But your influence from time to time runs beyond this. In your designing you bring together many crafts, many skills, many arts. Through these you do influence the character of construction. If you did not have such influence, design would be static—and it is far from that. Your influence for progress probably exceeds that of C.M.H.C. We do not have sufficient powers to influence the quality of housing design; we can and do require minimum standards of health and structural safety; we can try to influence the shape of subdivisions by altering loan values. But we cannot impress design on builders. We can encourage good design and are trying to do so.

In the buildings of any period we can see the processes of civilisation itself, its changes. They are a commentary on the society itself. They tell of the habits, the faiths and arts of men and their times. The skills of men, and their mastery of the industrial arts are embodied in the wood, stone and clay. Too often, I think, architecture is referred to as if all that mattered were the visual effect of design. This is only one consideration, and perhaps merely an emotional one. One judges it rather by its contribution to civilisation, to our way of living.

Together, you and I bear witness to the most vital epoch in the history of the modern world. You, like I, before 1914, must have gazed at Mercator's map; noted proudly the world-wide distribution of red that marked the domain of England, glanced over the other great kingdoms. The tree withers long before it falls. So do kingdoms of the earth and of the mind (and so do houses and city precincts—to mention the mundane). It is easy to forget that it is not the lofty sail but the unseen wind that moves the ship. The winds, then unseen, were soon to blow and to rise to a hurricane force that has not yet abated.

As in the deep southern latitudes, where mountainous seas range round the world, having no land to break them, so new ideas and ways have accelerated themselves in this century, sweeping before them older standards, criteria, principles, canons.

Again, we have seen empires dismembered, others destroyed. New Caesars came—the wandering outlaws of their own dark minds—but Mussolini, Hitler and the others have gone too. We have seen disrupted

the older commonwealth of kings—whole families of majesty in flight, until almost none remain.

Since 1914, war has never stopped. Over vast ranges of the earth, and its peoples, we have seen laid a wide and melancholy waste of putrid marshes. The naked shingles of the world have been revealed more to us than to any of our forefathers.

But, more significant to us, are the changes wrought in the kingdom of the mind—in the world of ideas—ideas in science, art, religion—all in flux.

We are now prostrate before the Vatican of Science. When we were young (and for long before that) man and his fight for justice and freedom were among the chief objects of his attentions. Science has changed much of that. You are merely an animal, made up of so many units of carbon, hydrogen, oxygen and nitrogen. You no longer govern yourself with conscious thought, but are the result of an obscure brood of obsessions, repressions, conflicts and phobias. All of this has replaced the time when man's presence on the earth gave it dignity amid the heavenly hosts, when Hamlet could say—"What a piece of work is man, how noble in reason, how infinite in faculty." (Of course, he was mad!)

Two philosophic concepts that interest architects —the nature of Space and of Time—also changed. (I believe these two concepts are basic to you. Your whole study of design is aimed at enclosing space, aesthetically and economically. In your whole output of work, time is the judge of its quality. I mean that nobility in building has something to do with their capacity to endure.) Space and time changed conceptually, and the man who did it—who said he was never at home in the world—died quietly in Princeton a few years ago. Anyway, the heavens, that used to reveal the glory of God, now show only the curvature of space.

Most staggering of all have been the new mechanisms of the fifty-year period. In brief, they produced a new kind of man—a man who put quite new values on three things; on speed, on standardised precision and on intensity of movement. A new rhythm affected all human life and values. Speed, precision and intensity of movement characterised the new factories, the new highways and skyways, the new cities. We no longer have time to realise whether we are happy or not. Even our tastes have been modified by the three modern criteria. Things have to be clean-cut. Clean shaves for men, short hair for women, no fuzziness in dress, in architecture, in furnishing, in art.

The gentle, the divine arts have also responded to the rhythm, to the tempo, to speed, to precision and to new intensities. And so some of the beauty of these arts is now discernible only to artists themselves. In particular I am thinking of some of the modern painting, the non-objective stuff. Only a few citizens are really capable of enjoying it yet. In architecture you have notable restraints on you in attempting new house design. After all, the man-in-the-street has to want it, has to enjoy it. I feel, however, that all art should help us outsoar the shadow of our night—whether we be artist or not, black or white, oriental or occidental. Perhaps the non-objective pictures do precisely that—only the generality of mankind has not yet trained his taste to appreciate them!

Such is our exciting times, and no doubt future historians, looking at our architecture, will make their own sweet or bitter commentary on you.

There are many ways of interpreting our period. It has certainly been one of fundamental conceptual change, with revolutionary ideas in all the arts and sciences. And with it has been confusion, shifts in standards of reference and perspective; shifts in principalities and powers. No doubt all of this and its psychological impact on society is reflected in the buildings. The period has had its pioneers in architecture, like Le Corbusier and Frank Lloyd Wright, both men possessed of vivid personality and of pronounced social philosophies of their own. Both men have fermented and tormented ideas on city living. They have provided glimpses of objectives that point to new ways of doing old things, and to ways of doing new things in city living. I should expect that furious times like these will produce more pioneers, as well as more practitioners in your profession. The influence of tradition and fashion, which always restrains your clients, is probably a dwindling one. The new generation expects something new—in house design and city development.

THE FUTURE.

Your Golden Jubilee calls for a fanfare of trumpets to announce the opening of the next half-century. For you, I am sure, it will be more exciting than the immediate past. As always, it is the imprint of your work which will be the physical record of this piece of our history. It is you who sets the stars upon the sparkling spires. It is you who gives the splendours to the firmament of time. Don't misunderstand me—I don't think architecture is the Mistress Art. It is a great art, but so are others. Architecture, it is admitted, has a wide range, from the purely lyrical to the completely utilitarian. We could all live without the other fine arts —although we would suffer by their loss. We can live without good architecture too, but we cannot live without buildings and communications. These buildings, and their setting, can be pleasing, stimulating to life, or they can be wretched. Since we must have buildings, and many more of them, the architects have a unique place in the next twenty-five years; a unique contribution to make to our environment and to our way of life. The cities will add ten million to their populations. The character of the places where people will live and work is your responsibility. Canada has now entered the industrial era that characterised the United Kingdom a century ago. Their population was drawn to Glasgow, Birmingham and the like, while the architects romantically revived the Gothic arts. The U.S.A., fifty years ago, drew people to its new tenements and monotonous suburbs, while the architects invented the sky-scraper and the concomitant congestion. For you Canadian architects however, life's enchanted cup sparkles near the brim. You have the golden chance and the wisdom of experience elsewhere. The new rhythm of the century—speed, standardised precision and mass-production, intensity of movement—will partly determine the shapes and relations of the house, the group of houses, the subdivision and the city. The new concepts of time, and space, the flux of ideas that I have already referred to, suggest that your imprint on the physical platform of living will be highly varied, highly contentious and highly complex in its theoretical aspects.

Your profession, and some others, is confronted with an adjustment to a quite new social and economic context. The *whole* city has to be seen, its whole design and the design of its parts, to make of it a new environment. Let me outline the reasons why I believe this to be very difficult and to be worthy of your mettle.

ARCHITECTS AND THE CITIES.

Before our eyes grow dim from gazing at the pilot stars, let us remind ourselves of the human situation. In Canada today we have almost six million souls under the age of eighteen years, about 37% of the total population, an almost unique proportion in the history of the modern world (the figure in the United Kingdom is under 27%). Soon they will marry, in a year or two they will begin to enter the labour market, and then the housing market. Here is the chance for your profession to take wing. This future involves you in house design, group design, neighbourhood design, city and metropolitan design and regional design—quite a tall order. Perhaps the order is too tall. To take only one element, house design. Today this can hardly be termed the bread and butter of your profession. It may have been the first love for most of you, because it is the most human and sensitive branch of your art. But in recent years your clients have come mainly from the non-residential part, from industrial, commercial and institutional builders. All of these put together just about equal in value the amount of residential building. The source of your fees however, shows a very different ratio. In effect, the profession has little business with the housing industry. The design of the very environment in which the urban population lives has benefited only in small part from your skills. With nearly 40% of our population going to enter the housing market in the future, this situation calls for change. To claim your due place in the task of city making, you cannot neglect the housing part of the environment. I can think of no more important subject for discussion on the occasion of your Golden Jubilee, and I'm glad that you will consider this in your deliberations later today.

Of perhaps greater significance is another subject —one that you and I have to approach with cold tranquility. The moment you conceive more than the single house—the group, subdivision, the suburb,

the city—you enter a new social complex, one that perplexes all social studies, namely, the relation of the One to the Many. When you, as architects, are called upon to design, not a single house or building, but a group, you meet complications that outrun knowledge of design. The groups in suburbs and cities require apprehension as well as comprehension, and a knowledge of many techniques beyond architecture itself. This kind of work is not simply a matter of aesthetics or taste. Nor is it simply a matter of transport and engineering (of getting ideas and people moving speedily from any part through the whole). Nor is it simply a matter of defining the social purposes that bring a group together to form the street, or the suburb, or the metropolis. Nor is it simply a matter of organising the materials and tools of our time (concrete, standardised modules, subways etc.,) to meet these purposes. Nor is it simply a matter of the constitution or of finance (the municipal-provincial-federal powers, in functions and in revenues). It is just *all* of these put together into one amorphous mass. To put it simply, it is a nucleated congeries of substantival entities, to reflect on which will drive some of you into pale despair and others into action! It is comprised of what the Chinese call—"the ten-thousand things". Clearly, it is not sufficient to know something of design, and I mean group design, subdivision, suburb, metropolis, region. It is not a geometrical exercise on paper. Any blot upon the brain in planning in these dimensions will show itself for years in the lives of those who have to live in the cankered city. The criterion of success will *not* be adherence to a preconceived form of professional practice on your part.

I would hope that both you and we can visualise clearly the greatness of Canada's future, and the heavy and weary weight of our responsibilities. More architects will obviously be required. Their numbers, including planners, have to be increased to take care of the ten million coming to our cities in the next quarter century. Clearly, we need more than quantity. We need architectural pioneers as well as practitioners. We need men trained more widely than ever before, familiar with more intellectual disciplines, if they are to be able to contribute to the making of subdivisions and re-making of the cities. There has to be a marriage between the architectural profession and the housing industry. There has to be study and still more study of groups designs of masses of things rather than single buildings. In housing it is not so much the design of the individual house that determines character. The subdivision too, requires planning, since each one is on a unique piece of ground, and it is the uniqueness of the latter that calls for the special attention.

The Parliament of Canada has, in these connections, laid special duties on our Corporation. The National Housing Act says our main purpose is—"to improve the housing and living conditions of the Canadian people". Presumably this too is one of the first objectives of your profession.

Central Mortgage and Housing Corporation has produced, and will continue to produce, publications that show desirable qualities of design in houses and groups. For years we have invited architects to contribute house designs for publication, and we have made these available to builders and home owners for nominal costs. We have sponsored the Canadian Housing Design Council. Where we have directly engaged in housing projects, in public housing, we have retained private architects. Meanwhile, we have built up our own small but effective architectural and planning division, to provide liaison with you, to encourage builders to improve subdivisions, and to help us on special projects where we act as direct agent for other Government departments. We have fostered and financed the Community Planning Association of Canada. We have provided university scholarships and fellowships for planners. We should like to see more architectural graduates being trained for planning work, more universities offering courses in architecture and planning.

But even all this may not suffice to meet the great urban problems that will face our country in a few years. We are prepared, at any moment, to sit down with your Association, to consider policies and plans. You and we are both engaged in the building of cities, and I think we must work out a closer partnership if our joint efforts are going to be truly effective. Together, it will be easier for us to strive, to seek, to find.


PITOL
PALACE
PIT AND THE
PENDULUM

This paper is from an unedited tape of remarks made by Stewart Bates to an Urban Renewal Seminar held at Central Mortage and Housing Corporation, February, 1958.

THE HUMAN CITY

Gentlemen, I welcome particularly the representatives that come to us from outside the Corporation. There are six provinces represented here. Some of you are provincial representatives, some represent cities within these provinces, but there are six different groups and we welcome you and hope you will be one of us, one with us, not only in these two to three weeks but in whatever ventures we together have to face in the future.

I think today, gentlemen, probably the best I can do is to say what comes uppermost and later, if there are questions and answers, we can both try to play our parts.

On Thursday evening last, in the company of my daughter, I left my house here in Ottawa at 7.00 o'clock and at 12.00 o'clock, five hours later, I entered the house of a cousin of mine in New York State in Westchester County in a rural part of the United States. As I entered his house, I knew that in the morning I could look down over rolling hills, rocks and trees to the Hudson River and across it I would see the Catskill Mountains rising in their blue beauty. Even from the door, I could see, four or five miles downstream, the blinking lights of the great new bridge that was built there three or four years ago. At that time the bridge and its project, the Throughway from the City to Buffalo, was described in this house as Dewey's Folly—Dewey then being the Governor of the State. It was inconceivable then to think that there could be enough traffic to pay for the bridge and the highway in 25 years. If there was any folly, it was in fixing 25 years as the period. It will be paid in much less, we think now. I knew that I would not hear the phrase "Dewey's Folly" in this house in the next three or four days.

To move from a house in Ottawa to a house in rural New York in five hours requires a vast complex. It is not really a complex that is something of the 20th century only. Probably it comprises all our history, the history of Greece and Rome and the cities there. Although New York is a different city, a different metropolitan area from any other, nevertheless the contributions of men of all kinds have gone into it. Not merely men who make airplanes. They, too, are part of the complex and they, too, are part of the urban city.

As I drove with my daughter from Idlewild, I tried to describe to her something of this scene 25 years ago: here in this huge panoply—even the air director's tower is an eight-storey structure in steel frame, even that is of Manhattan—but to drive from there to New York, past LaGuardia Field, and to try to tell a 20-year-old that 25 years ago no one had even conceived LaGuardia, and yet today it is outmoded, had to be replaced by another field which in turn has become outmoded and is being rebuilt; to try to describe that there was nothing here then but swamp and an occasional high tide. As one drives in towards the Triboro Bridge, it is quite easy to point out the things that have happened across this river in this period. There was no highway on the west side in those days. (This is the project Roosevelt was to start sometime later and have it named after him.) The skyline itself has changed. You now move into a completely new complex of highway systems, the Throughway, the Cross-country parkway. None of them existed when I lived in New York over 20 years ago and this area we were going to was only an embryo then.

I knew, too, that in this area next morning, I would reckon the time quite carefully as I wanted to go to Wall Street and I was to be there at half past twelve. It would take me 15 minutes in the car to the station, half an hour to Grand Central, 15 to 20 minutes on the underground to Wall Street. I had merely to time it so that my daughter could spend an hour on the floor of the Stock Exchange before the appointment. All of this I knew would happen, again requiring a vast complex that's part of your study.

I knew, too, that on Saturday evening I would go to a little tavern, perhaps 300 yards from Sing Sing Prison, and that when I entered that tavern the man there would come across and say "Hello, Stewart, I am glad to see you again, You haven't been in for some months. How is the family?" and so on. A little Italian, Pete Lalune, whom I have known for over 20 years. There's no tavern to which I can go in Canada where anyone would come forward and say that. But there are many such neighbourhood intimacies in this vast complex of which one thinks so impersonally.

Now in all of this one cannot help but be really surprised at the rapidity of change. This struck me more forcibly than ever, I think, on Friday evening. I went to the theatre with some of my relatives and as we left we passed the Times Building. The vast array of automobiles was just beginning to move out to carry the Times newspaper to the stations for Montreal and elsewhere. As we passed it, I looked at my watch. It was 11 o'clock and I knew that we'd be home by twelve. I don't suspect that any one in the Times Building knew that the Times newspaper would be completely refashioned within the next two hours before the

3:00 o'clock edition. At 10:58 the Army was launching the Explorer. The editor of the Times was to write a new editorial by 3:00 o'clock in the morning. He was to insert two new pages in the newspaper, 7A and 7B, and I saw these at 7:00 o'clock the following morning, delivered, with all of this done. As we entered the house at 12:00 o'clock someone was looking at TV. It stopped. An announcement was made of the launching of the satellite. Within five minutes the radio stations were giving the sound of the American Explorer, contrasting it with the Sputnik sound. These were reproduced, repeated, the story was told, and it was announced simply there would be a vast press conference at half past two in the morning on this little piece of beach between Miami and Jacksonville and that all the world was invited to listen. This, too, is part of the study, the interest, the subject that you are engaged in.

Nobody planned any of this as part of the whole. Millions of men did little bits of it. One has only to drive in a taxi in New York, any day in the week, to realize that some day maybe very soon there will be a traffic jam of such magnitude that no one will be able to move anywhere, anyhow. It is as unplanned as that. It is so unplanned in the sense in which we are accustomed to use the word "planning". Bits of it are planned, of course, bits of it are designed, but no one designed this complex, no one ever dreamed of it!

Certainly, as you look out on the Hudson River and think of Henry Hudson's first steps there, you are sure that no matter what visions came to him on the ice in the Hudson's Bay he never dreamed of any such potential development. This was impossible, just as I think it impossible for us to dream of what's going to happen in the next 25 years or the next 30 years. And yet you must try to achieve these concepts. You have to try to consider the plan, the development, because growth apparently is inevitable.

We have 6,000,000 children in Canada under 18 years of age. Presumably they are going to live with us. This means 3,000,000 families quite soon in the future. And where do you put them? Alan Armstrong says if you handle them as we have handled outselves in the last ten years it will take 2,600 square miles of territory to house them, with all the underground and other services that go with that; 2,600 square miles to house them if we try to do it as we have been doing. Clearly this is an undertaking of major significance. If the subdivisions and the units proceed as they have, obviously Toronto must stretch from Ajax to London without a break and northward also for at least 50 miles. It will be like Los Angeles; that is, assuming we are sensible enough to have as good highways as they have in Los Angeles. But it's something of that magnitude that faces us.

Now I would like to say in passing that I would hope that Canada would be more imaginative than merely to consider the extension of the present towns. We have very few cities for a country this size. Inevitably, they will all expand and, if nothing is done, each one will spread out and produce its own mania. I would hope, however, that we would have extensive public discussion in this country in the next year or two towards the consideration of new cities. After all, theoretically, if you have 3,000,000 families you could have three cities of 1,000,000 each to house them as distinct from simply adding the 3,000,000 to the

periphery of the existing cities. Or you could have two sets of 1½ million, or two of 1,000,000 each and spread the other million somewhere else.

I, myself, am captivated with the idea of building a new city to commemorate our 100th anniversary which is in 1967. I think this is a contribution that the Federal government might be asked to consider as a mark of this occasion in 1967. I even know where to put the new city! Put it on the border between Quebec and Ontario down on Lake Francis on the seaway opposite New York. I want it to be a French-English city, a modern city, a symbol of Canada in the 20th century, a symbol of its aims, its objectives, its achievements. This city, where obviously you would have the World's Fair of that year, is going to be put somewhere. Here you would have the permanent buildings, the auditorium. Here you would have your new cathedrals and so forth. This, however, is not likely to be the way we are going to do it. We are more likely to add population on to Montreal and Toronto and some on to Edmonton, a tiny bit to Halifax and elsewhere. This undoubtedly is what will happen and this will be a most expensive process, far more expensive than devising new cities, modern cities, tributes to Canada. You will not have that complex unless there is a considerable extension of discussion on all fronts.

I don't think you will find in this course that you get answers to all these questions. There is no philosophy of city growth. There is no simple system. It is not a scientific procedure. It is not something you can describe in terms of principles, in terms of certain laws of growth. They are not there. There are no simple laws. Very disparate, unequal forces pushing in this direction, in the next direction, with no single group, no unitary mind, no unitary concept as to what that growth is or should be, or even as to what it is, let alone what it should be.

There is no simple formula. You won't find a simple formula in discussions around this table, I'm sure. I think you may leave here with more questions in mind than you have answers and this in itself will be a step forward, because I doubt really if we have asked ourselves yet the proper questions about cities; the kind of cities we want, why they should be of this type. Clearly, there is room for vast differences of opinion. You cannot appeal to logic, you cannot appeal to science. Building cities is an art, an art of which we are singularly ignorant but not content to be so. For those of us concerned with housing we have to look further than the individual house and the city is obviously the starting point of the study; the place that we must begin, the place that all must end in.

I think you will find here as you go through one part of the expertness after another part that it is difficult to put the jig-saw puzzle together and to conceive of any single city as an entity. There is no pattern. Each one is unique, out of its own history, its own geography, its own forces, economic, social, human, inhuman, each one has its own virtues and vices, each its own justice, its own types of injustice, its own types of hate, its own types of love. It's a complete mixture of all of these and therefore difficult to put into any simple category of understanding.

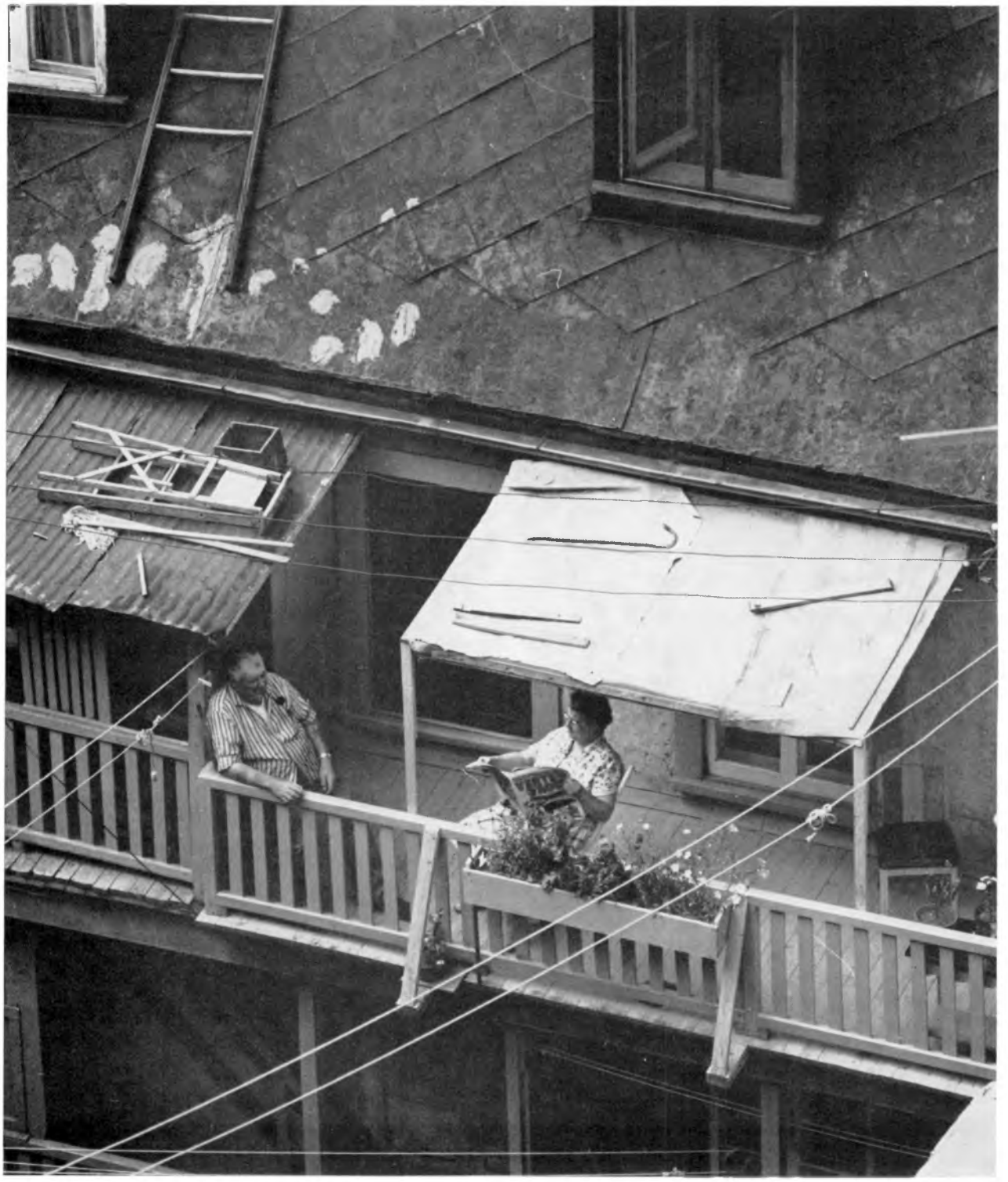
I think you will find from the course our people have prepared for you that the horizon on

all of these is opened up for you. In all these aspects there is some part of the course aimed at opening this question and the interconnected questions that go with it. Perhaps you will not find the answers, as I mentioned before. The answers are less important than the questions themselves, and the attempt to find, to state the questions. When this is done, the rest will tend to fall into place. We will be bedevilled, of course, by difficulties in every municipality because of Federal-Provincial-Municipal relationships but these things we must live with, we must accept and must work with. They are not really obstacles in any sense of the term. The real obstacle is the creation of a public concern over the growth of cities and their nature, because this is *the* environment and the environment in which we expect presently 6,000,000 young Canadians to grow up. There is very little talk about this in schools. There are very few courses that we give, shall we say, within the levels of citizenship or home economics on aspects of this kind.

We are hoping at the end of this set of discussions here to be able in the Corporation to put together some material that will be useful at all levels, elementary school, university, more material concerned with this basic ingredient of our national life.

I think, gentlemen, that the important part of our work together is the discussion. I think the most important discussions will come from the experts who speak to you. I would like you to feel that we in the Corporation do consider this subject really as the most important part of our total work. We must always search for lower cost housing, we must search for ways of getting rid of sewage. This is true, the absorbing operation, I think, for each of you is the contribution that you are going to make, and make it you will, to this Canadian panorama that is unfolding. We want to do what we can to encourage you individually and to encourage all others because we think this is really, of all activities in government, whether you are Federal, Provincial or Municipal, of all activity in government this is by far the most exacting, the most exciting. ✦✦✦

Remarks given at a Round Table Discussion on "Man and Industry" at the University of Toronto, November, 1958.



HUMAN CONSIDERATIONS IN URBAN DEVELOPMENT

"God made the country and Man made the town", said the poet Cowper in the 18th Century. He had a strong preference for the country over the town. But in his own time, his writing colleagues did not all agree with him. The town represented a way of life to the articulate among them. For people like Dryden and Pope the town was a human achievement. For them the city held the best that human hands had been able to make to serve mankind. The city was the way, the truth and the life: it was civilisation. As they built the language, words like "civility", "urbanity", "politeness" came into being, each suggesting civilisation as originating in the city. They read from the past how cities had grown, how ordered communities had appeared, how these had been associated with the growth of art and literature. To them therefore, the city made life worth living.

Now, two hundred years later, in vastly changed times, the two opposite voices are still heard. On the one side is the country of the Western movie and the soap operas, the nostalgia for the small town. The love of the country is held also by men of authority: one great American architect can see only the loss of humanism in the cities—the loss of personality, individuality, spontaneity and freedom. The urban or the urbane has for him no virtue: he loves to put his masterpieces in a natural setting, each standing alone, free from the trammel (or support) of other buildings, each of us on his own (or God's) acre, even in our houses. To get away from the crowd has its merits, no doubt.

On the other side are equally authoritarian gentlemen who would like to crowd growth into monolithic blocks, in city centres.

The love of the country and the small town is in all of us, as is a love of nature. We can, however, contemplate nature with some more acquaintance than Cowper. The biologists have learned something in two centuries. "Nature never did betray the heart that loved her", said another Romanticist. Oh, didn't she? Does she show logic, the consistency you would expect from your fellows, when she turns upon herself, and undoes with one hand what she has done with the other? She teaches one species how to feed on another, both of them her own children. For them all she has provided a wondrous armoury, with claws, fangs, suckers, poisons, so that one of her children may prey upon another. There is no kindness in the sea, no benevolence, no humanitarianism in the forest.

And yet who could deny Cowper or Wordsworth the loveliness of nature, the enchantment, the never-ending wonders? Nature, that wars upon her own children, creates the most exquisite fabrics of living, the lovely colours, the textures, the perfumes, the anti-toxins to defeat the toxins, the subtle powers that made the brain, the infinite delicacies of all her creatures. Her contradictions baffle the understanding: she smiles and frowns, creates many modes of life and death, inspires all that is best, all that is forbidding. And this she does for mankind, as for her other children. "Human considerations" therefore have to be seen in the perspective of nature, as well as the towns. God made the country: but He made men too. Men made the towns—and these towns have within them more humanism than the seas, or the forests, more humanitarianism. The dichotomy is not quite so neat as Cowper put it.

Certainly Dryden and Pope regarded the social life of the city as their inspiration. The country was for cows.

"I hate the brook that murmurs at my feet,
Give me a kennel in St. James' Street.
And if on sultry days we pant for air,
The sundry breezes of St. James' Square."

They were going too far. Bloomsbury does not make up the world, and they were mistaking a coterie for mankind. Yet it is probably true that the city of the 18th Century had more charm in it than ours. It was the 19th Century that did things, inhuman things, to the cities. Quantitatively, it was the greatest era of

city-building the world had ever known. The surge came fast, under the impact of a new world trade, a new factory system to serve it, and a new transport system to carry things to and fro. The emphasis on materialism produced more Birminghams than Edinburghs and so much inhumanity for so many that the reformers had to get busy on all fronts. For a while even freedom and justice were in doubt. There was no doubt however, about the building of squalor and wretchedness. Human considerations were not in the forefront, and a subsequent reaction of public opinion to humanitarianism and welfare concepts was inevitable. But the cities were there: and the 20th Century was to see a further expansion, usually on the periphery, with the older stuff ringing around the still older city centres.

The order, the inspiration, the urbaneness that characterised the 18th Century town are now hard to find. If you admire clearness, precision, moderation, good sense, you will have to search for them in the modern town, as Diogenes searched with his lantern for an honest man. But if further, you be possessed of good visual taste, if you expect the city to provide you with a good architectural composition, you will have further disappointments as you walk the streets. The Greek architect wanted the *whole* temple to attract, and if one part was more arresting than another, that was a fault. Modern cities, particularly ours, were seldom designed in terms of composition, even now. True, we are using more architects and planners, and engineers. But a townscape is neither architecture nor engineering. It is these and more. It is, or should be, an urban composition in its own right; I fear we seldom regard it as such.

The urban scene—the layout of streets, the sites of buildings, their shapes and textures, the pavings, the posters, the trees, the lamp-posts, the parks—this total scene has in no place been designed as a whole. Single buildings often are designed, and well designed, but usually as abstract compositions conceived independently of their surroundings. Even a few neighbourhoods have been designed, some excellently. Not that the composition of the city is its highest value. Far from it: but it is a value too seldom seen. No, the city has to be more than a vista. It has to be also an environment for the good life, for the provision of justice and freedom, for the plain man and his family to have dignity and opportunity, a place that can satisfy most of the workings of the human heart.

Canadian cities continue to grow. And the six million children now under eighteen are a reminder that major new city growth is inevitable. If you ask who has determined this growth, the answer is no one.

We may sum up by saying that the modern North American city is a result of two things—of the modern society, with its mass product and mass movement—and a result of our democratic ideal—one is free to work, live, produce where he pleases. The first force makes us live in crowds: the second force oppositely tries to preserve freedoms of thought and action for the individual, so that he can hold out against the crowd.

The first force produces the vast scale that typifies the modern city—including in scale the many complex institutions and associations that come only with size. The second force calls for the city to possess the attributes of freedom—the free choice of the individual in his associations,—a place to live, to work, to play, to have an environment favourable to the churches, the clubs, the voluntary groups through which he can exercise his creation and recreation.

But surely the forces are no longer in true contention, in balance. The former is swamping the latter, and the city has become more and more depersonalised, dehumanised. This dilemma of the city is part of a wider one in our time. Our whole way of life shows the forces of collectivity on the increase, gaining on every hand, the mass product, mass communications. On a warm fall evening in Ottawa recently, I had occasion to walk through some new streets, with three-storey apartments. From each open window, up three floors, along the streets, came the same voices, the same T.V. programme—two simulated Los Angeles policemen—and God alone knows how many North Americans were listening and watching. How fitting the title for our times—Dragnet. How frightening the thought for any of you who believe the best society is that which increases spontaneity, life and variety for the One among the Many.

The city reflects the same dilemma. The individual does not, cannot with our present ways, any longer make decisions about the kind of city he wants. And this is true not only of the plain men but of the Caesars of wealth or municipal power. Now the large cities grow and multiply and operate almost without the assistance of any comprehensive mental power whatever! Every new piece is ad hoc, and the wonder is that it works at all.

The end-product of all the industrial, social and political decisions that make up the city is the indirect result of many unconnected decisions. Captains of industry sometimes voice their scorn at suburbia without accepting that it is a consequence of their systematic division of labour. We are all concerned with parts, —and no one with the whole. The Goddess of War would forsake any nation who was so artless with its forces. It is perhaps not too much to say that North America is losing control over its urban structure. True, each addition has had someone make it—but he has decided only in part, and each action has many consequential results that force decisions on others. Happily, however, there is a growing awareness that the city, *with* its hinterland, is an entity, and has to be so considered. This very conference is part of that growing awareness of the entity.

The cities of North America have exploded. The old form of local government cannot contain them. There has emerged a regional urban society of vast extent. One almost continuous urban region stretches from Boston to Washington: Ohio holds another, as does Chicago, Los Angeles—they are no longer to be thought of as cities. They are urban regions, and in Canada one emerges from Oshawa to Hamilton.

The U.S.A. is spending $40 billion on highways. As once did the railways, these roads will reshape the economic pattern, will shift populations and alter profoundly the uses of land. You even need a new vocabulary—turnpike, freeway, expressway, parkway, interchange, circumurban, frontage road, bypasses. Some highway engineers regard the city as simply a piece of automobile obstruction, something to be bypassed or given surgery. Yet if anyone can be said to be designing the new townscapes, it is the highway engineers. But they don't think of themselves in any such exaltation: they are as professionals merely building roads. I'm sure that when Ontario engineers conceived route 401 round Toronto, they didn't dream of the townscape that now lies athwart the fine road. And so it goes for all our institutions: we see in part, and we feel we are merely responding to change. The churches see the new subdivisions: they follow into them with new buildings: they appear as consequential to the suburban growth. Yet as church groups, they could help form a public opinion that might have something important to say about the new shapes, the new patterns. In fact, if we look back to the days of the fine European towns, (and Asiatic too), we will be astonished at how often their character derived from a church or a cathedral or a religious institution. Today in a business world, the city is dominated by the handmaiden of business—the skyscraper. But no one group, not even political groups, and in the 20th Century when so many worship at the Vatican of Science, no not even scientists as scientists, have anything to say about the urban region growth. It just happens: and we all follow.

If you want a good example of how our institutional framework lags behind events, here is one. In world affairs, since the first war, nations have been, and still are, groping for a new international, institutional structure. But here right at home is a similar, perhaps an even more serious, domestic lack. The local government units have become almost irrelevant. Some cynic has said the Canadian constitution may be overthrown: but it will never be amended! Even if it could be amended to take care of the growth of urban regions, you must ask if that would be enough. "Cast your Kingdoms old into another mould" means more than constitutional change. Surely this is more than an institutional need. There are required new attitudes of mind on the part of all associations—churches, industries, clubs, included—towards the city as an entity, as a viable and lively part of our environment, an attitude that recognises they are the real units of growth, cultural and political, and that they have to be seen afresh.

This is not to deny that almost every city in almost

all countries has an awareness of its failure to achieve the good life, or even an attractive urban composition. But so often it lacks power: today New York combats Philadelphia in finding adequate sources of drinking water. Local government as constitutionally conceived did not envisage this sort of thing. Within their own orbits, it is true, cities have tried many forms of regulation. Some places have "must-look-alike" rules that enforce uniformity. Others do the opposite and have "no-look-alike" rules to compel variety. Others have zones, some for residences, others for business, others for historic monuments and the like. Others insist on certain quantities of open spaces. More ambitious ones have aesthetic regulations. And so it goes, attempts to keep the city and its surrounding country livable and workable, attempts to make urban living more human, more human-hearted. But this requires more than a few regulations, or maps, or plans—although these too are no doubt part of the need.

The town planner and designer are obviously necessary. It is however, I think, a grave mistake to assume that the presence of a few of these experts on the municipal payroll absolves the remainder of us from any further responsibility. Most of the planners I know are so busy on daily routine approvals that they have no time to plan—only to look at the small bits of city explosion that constantly land on their desks to confound them. But even if they had time, they alone cannot secure the good urban composition—any more than they could make for us the good life, the provision of justice, or freedom, or the calm grandeur of soul which we all seem to believe we have a right to. The town planners and designers you must have to suggest the good shapes and patterns. But there is a rough road between suggestion and performance. There are other political, social, and economic opinions to be taken into account before the plans become realised. In the non-democratic states, the town planners and designers can apparently enter the arena with iron: ours have to enter with prayer.

If you look at any recent city subdivision, what are its features? A few years ago it was farmland, under the local jurisdiction probably of a county or township, whose reeve was a farmer. Who made the suburb what it is? Certainly not the people who now live in it. They merely came to it: perhaps they saw a model house, bought a hole in the ground: perhaps they saw a developer's map with an attractive community design. But of one thing we can be sure, the people who now live in it had nothing to do with its creation. Who made it? A developer of land, a speculator, a builder, the providers of loans, the manufacturers of sewer pipe, bricks, lath and stucco, the road-makers, the shopping centre experts, and the like. Each and all of these made it, and not one of them would be responsible for the whole. In this suburban development were there any "human considerations"? Obviously there were *consumer* considerations. Every group mentioned above had to sell something—and they all sold their individual product—the district, the neighbourhood, the streets, the pipes, the houses and the windows and the doors.

As a result of the individual actions of each of these groups—some representing government, others a myriad of private enterprises—there emerged a new subdivision, perhaps a new neighbourhood, perhaps a neighbourhood as large as a town. Now living in this neighbourhood, generally so haphazardly put together, living in one of its houses, behind the curtains, behind the street face is a family, a personality as varied and as subtle as human character itself.

We have come from the city to the neighbourhood, to the house, because the houses do make up half of the urban scene, and because, since the war, most of the neighbourhood development has taken this form. True, there have been new towns designed completely in frontier areas, as there have been a few complete designs of neighbourhoods. But the bulk of building has been as described, with the "human considerations" being added later, as the new area found it needed churches, schools, shopping centres and the other attributes of more graceful living. Some of these could be, and have been, added: others could not, because the shapes had been determined without human considerations in the forefront. The home buyers found themselves in areas they had not shaped: and found frequently there was little they could do to alter the given environment. Some have wondered if

the home-ownership vision may not even have misled them, if the attractive coloured magazines of homes and gardens haven't left out something, if in the end they have not become as much victims of industrialization as were their great-grandfathers (in another way), one hundred years ago. Some have even been bold enough to wonder if the captains of industry—the builders, suppliers, automakers and the rest—have not lost sight of part of the dream, the ultimate human application of their particular little industry. It is not difficult to think of urban development as it has failed the infant, the young school child, the young mother, the newly-weds, the old aged. Apart from man and his domestic animals, few of the remainder of God's creatures willingly choose city life; except perhaps rats and lice! We need not pause to point out the many urban aspects that fail humanity. When the suburban home-buyer begins to feel the "shadows of the prison-house", the lack of variety of housing accommodation, the shortage of open space and amenities, when the human element nurses its complaints, more often than not shyly, perhaps with inexpressive intelligence, perhaps untutoredly, those who created the neighbourhood are far away, doing it all over again somewhere else.

The highest managerial skills are pre-empted by the separate processes of production, and seldom if ever get applied to the end-product, which is the city itself, its neighbourhoods, its precincts. Public opinion, especially the outraged, gets applied to a particular subdivision only after the inhabitants are in residence and have given it the pragmatic test. It is then too late, and too little, or too far removed to have much effect on the other neighbourhoods being built or planned.

In most cities, the problem is just as simple, or as difficult as life itself. With this pearl without price, life, most of us don't know what to do. So with most cities—to define their ends, their purposes, their objectives is not easy. Occasionally the end is clear. One new city in Nevada, well designed and laid out, exists for dice, divorce and dissipation. The celebrities who frequent it would no doubt tell us they go there because Plato taught them pleasure is no more to be mastered by avoiding it, than is danger or pain! (And with that remark we see that city in a new, humanistic light—a means of achieving "complete goodness!")

Other new towns, like Kitimat and Elliot Lake, have been created for other reasons, and they too can be humanly planned. But in most cities the human objectives are blurred, perhaps even the economic, social and political jusification for the city has never been put to paper. We have studied our cities very little—although the land speculators have, but again only for particular reasons, as have the highway engineers, the sub-dividers and the rest. In school or university disciplines, there are few books, teachers, authorities on urban development, beyond a handful of town planners and designers.

It is tempting to look for some official to whom the whole thing can be turned over—a town planner, a town engineer. Or the more sophisticated may push beyond that and suggest control should be exercised by metropolitan authorities to be created for the purpose: or that a Provincial Ministry of Planning should shape the scene, and say where industry can and cannot go. Others have suggested a tri-partite government control, by joint federal-provincial-municipal agency; the federal government being made a party because of its concern with housing, and because urban development and national development are almost one.

You will note that all of these suggestions point to governments, to the widening of their powers, to the increase of bureaucratic control.

The cities have exploded into urban regions. This extension is in the form of the expanding suburb, mentioned earlier. Not mentioned so far, but equally if not more important, is the crisis at the heart of the so-called city itself—a crisis of traffic, parking, decay that we can all see. What we don't always realise is that the heart itself is no longer able to serve the new body. The heart is asked to do new things in new ways, and in face of the task becomes degenerate. The city is man-made of course, and can be renewed and revitalised. Strange it is that we all know our gardens require constant attention—pruning, weeding, seeding, renewal in whole or part—yet we expect built-up areas of cities to keep sound without attention. Worse still, we expect a central core that served a quarter million

region, to serve a new million region. Clearly the centres of the new urban regions require major changes if they are to provide the core of the good life—the vitality, the culture of growth and spontaneity. (I am not suggesting than an urban region can have only *one* core, that it must have a single monolithic centre. Patterns can vary. But whether there is one or more centres in the region, renewal and constant revitalisation are necessary.)

We might summarise the situation.

Man is capable of conscious design and the city is his ultimate environmental creation. Cities were once simple and engendered real affection in those whose opinions formed them. Common symbols and techniques made for order and focus.

The 19th and 20th Centuries released new forces. Science and industry led to rarified purpose and values in townbuilding. The market mechanisms, the balance sheet seemed to emphasise one value primarily—the economic one of the Manchester School. This single emphasis produced—Manchester!

The choice of the urban form became more and more fragmented, and development of the urban art deteriorated. Some choices are made by municipal planners and highway engineers: other choices by politically elected municipal persons; still others by corporate managers of substance and power: some choices made today are without reference to precedence and subsequent choice. A common mind as to the total form of the unfolding townscape does not exist. Most individuals, if they ever consider the form of city growth at all, feel powerless in face of these powerful groups.

The market mechanism is obviously insufficient. Central blight occurs because this mechanism is indifferent to the rate at which new land uses and changes of form will take place, or should take place. Land speculation on the outskirts show the mechanism at its best—for the speculator. The machinery for producing conscious urban design, at the heart and in the fringe, is not apt any more, the whole market, social, political and economic, has its shortcomings.

No Canadian product in the next generation will be more important than Canadian cities. The skills of management and production are not focused on the end-product. Though dissatisfied, the plain citizen hardly knows what to complain about because he has been offered no clear goal in city design.

To coalesce the forms, to integrate the work of all groups, to achieve the true objectives, calls for more than government action. Government planners may have a prime role to play. More is needed. In another day, a prince or a baron, once aware of the necessity, could impose it on the people. But now with our way of life, a wider mandate is needed.

Where does this summary point? It points to some logical dilemmas:

1. Local government units no longer represent the scale of the urban regions. But governments cannot act far ahead of business and household judgments on these matters.
2. Business and household judgments lag behind the problem. The corporate organisations are specialised in their functions, and the end—the city—is no more for them than a rather random assembly, in response to shorter term consumer needs. The households, the plain people, are not sufficiently articulate to express their needs, or to conceive the plans for their satisfaction. They await visions, and views, and plans, and discussions, before they can exert the full force of their opinions on government.

To overcome these conditions we need, of course, action—the sooner the better: we need also more knowledge of conditions in cities, data and information on growth: and we need more research into the city as an urban form, into the problem of metropolitan societies. The investigations must involve collaboration between the three groups—governments, corporate organisations and people.

So far as governments go, most Canadian provinces and large cities are now assembling staffs of professional planners and designers, who are capable of expressing imaginative and practical schemes of development and redevelopment—if they get more help. They will, I'm sure, have to draw on the intellectual resources to be found at universities, in the

scientific and professional circles that are society's centres of idea-making. The universities in particular have a major contribution to make to the analysis of urban dynamics and to the art of civic design—as they have always done in jurisprudence and political economy, the not dissimilar disciplines from the one concerning us today.

The second group, the corporate organisations (and I include the trade unions)—especially in Canada with so highly integrated an industrial and commercial structure—have an equal role to play. Our industrial structure is such that major new growth rests in relatively few hands, managerial and trade union. It is not too difficult to envisage business men getting together frequently to consider whether a *group* of contemplated plants of different kinds could not be sited in say, a new town—to get advantages of joint research, joint action. This presumes these organisations taking a slightly broader view of national growth than they usually do—a thing that could be initiated now but may be difficult twenty years hence when we are big. At present the Mellons in Pittsburgh, the Fords in Detroit, the Rockefellers in New York, are openly allying themselves with public powers and civic design skills in the recognition that the city (and not merely their own product) is the important goal. This industrial influence and power is being used to help formulate—in alliance with other industrial leaders—plans for orderly city growth and redevelopment in these areas. Their objective seems to be in the right direction—to enliven, intensify and symbolise the vital and ever-changing patterns of civic intercourse—for which the heart of the city is the unique place. Our corporate structure is peculiarly suited to a major contribution along such lines.

The third contributor to this is the people, the citizen—not as a single person, but through the influence of the voluntary associations that make up so much of his way of living—the citizen's movements, the schools, the churches, the service clubs, the taverns, and finally the voting booths. This rich complex of voluntary associations has something to say to government planners, and to corporate organisations as to the nature of the good life. Those voluntary associations and their members have still more to discuss as plans for orderly city growth emerge. In this way, public opinion will press on governments, and the people will feel that new urban designs will render a better kind of life.

Only through such action will we get a common language—government, corporation and householder—on the art of city building. And without a new language of urban forms, a new syntax for the ordering of city life, many of the problems will remain. In our society, it will be upon the enthusiasms, upon the freely given and duly felt responses of the adult urban world that our common language of civic expression will be founded—as it once was in Bruges, Bloomsbury, Bath and Edinburgh. Tomorrow's cities will be more eloquent than the language for them that we can learn together today. This conference of university and business men may well prove to be a primer. It is a right step in the right direction.

We may conclude therefore, that both the fringe and the centre of our metropolitan areas require a new vision. The defects are there, man-made, and presumably alterable if the proper forces are applied. One should not expect unbroken felicity in this life, even in the man-made parts. Yet, each of us, in all things, from birth, seems aware of the possibility of a very great felicity—even expects it.

The end product of all our civic endeavours—the city itself—is not merely a matter for governments and their planners, although they have a prime role in the development. It is equally a matter for industry, and all the voluntary associations that make up our democratic way. The city, like the garden, has to be redreamed periodically, reviewed, recast, renewed, revived. What we now have in buildings, streets, shops, institutions, is quite recent in the history of mankind; they do not represent the alpha and the omega, the beginning and the end, of city growth. To our grandparents, the present city would have seemed improbable. The cities of fifty years hence are now equally improbable to us. The universe does not deal in things that mortals expect. This is the source of our unabating hope and never-dying expectation. "Make no little plans." ✦✦✦

An address by Stewart Bates to the Canadian Institute on Public Affairs, February, 1959.

The City of 1984

The title of this address was chosen for me by your Committee. On my own, I should not have elected so impossible a subject!

Of that city, there are perhaps some things of which we can be reasonably sure. One is inherent in the pledge or attitude of the citizens. Today there is no Canadian pledge and so I paraphrase the Athenian pledge, of over 2,000 years ago. "We shall never bring disgrace to this our city; we shall fight for the ideals and sacred things of the city; we shall revere and obey city laws; we will strive unceasingly to quicken the public's sense of civic duty; that in all these ways, we may pass on this city, greater, better, more beautiful than it came to us." To this, the ordinary Athenian

subscribed.

What a handful of dust was the Athenian to think such thoughts! As was the case then, the Canadian city of 25 years hence will be exactly what our fathers, we, and our children have made it. It is being made today. It was being made yesterday, and will be again tomorrow. The city is thus a truly democratic institution (and "democratic" can mean the lowest common multiple)—the product of many minds and actions, of the decisions of men long gone, of us in our time, and of our children in time to come, the latter in circumstances we cannot hope to foresee.

Not many of our fathers subscribed fully to the ideas of the Athenian pledge. Our fathers left us the sort of cities they deserved. (And these cities can be, and are being, recast.) Not many of us today subscribe fully to the kind of thing the pledge meant either. And not many of those now in school or college will hear of it—unless we voice it and show them we have tried to transmit to the cities something "better and more beautiful" than we inherited. This practical example to our children will be worth more than the text, in determining the shape, the form, the life of the city of 1984.

In short, the city of 1984 is not something you have to wait to see, like the other side of the moon; nor something concealed in an alien, complex mastermind. It has been composing itself, is composing itself now in the inside and hearts of the people.

What direction is the composition taking?

You will not expect me to talk about detailed design in 1984, of the effects then of physical and technical changes. Of these things, we have only one certainty. Apart from war, the pace of technical change is likely to exceed that of the past 25 years: and it has been rapid enough, in all conscience. Certainly by me in 1934, the quarter century to 1959 could not be envisioned. Then, across the River Clyde from us in Helensburgh, was a fellow named Baird, who said he thought he could broadcast pictures. He did too. But then I thought him a romantic, as I should have thought the angel Gabriel had I been present to hear him suggest that the creation of the fiery ball would one day produce poets and philosophers and humans. I recall too in 1934, the Russians had just launched a five-year plan to speed industrial and agricultural revolution. They were aiming for the moon, we joked: as so often, the joke was right, and 25 years later their rocket missed the moon only by the breadth of our own land. In February 1934, I read a paper to the Edinburgh Economics Society on the U.S. anti-depression measures—the N.R.A. and the like—and quipped about the Nova Religio Americanensis—the quip was better than the paper! In that spring, before the tyrants had really risen, I recall the astonishment of reading Lenin—"as for us, we never were concerned about the priestly and vegetarian Quaker prattle about the sacredness of human life." That man harboured some un-Christian thoughts, I then felt, and regretted his lack of acquaintance with Scottish religion.

Clearly there was in me then no talent for social forecasting: nor now. Surely the physical changes will be vast in the next quarter century. The economic changes, too, will be far reaching—and Canada has had a Royal Commission on Economic Prospects to give us some guidance, a guidance that extends even to the probable urban scene.

The composition, the shape, the patterns of urban growth in the next 25 years will be, of course, a product of the governing attitudes of the times—yesterday, today and tomorrow. Attitudes may change not at all. In which case our cities would presumably simply expand themselves as they have been doing since the war, except faster. They would sprawl into the suburbs at something like 100 square miles per year. The six million Canadians now living in our 15 major centres would have become 12 million. The nearly two million metropolitan houses would have become close to four million, and the metro areas would have grown to twice their present size. The incisions through the centre of the old cities would have become larger, if only to keep communities open. To make communication as easy as it is today much of the old city will have become freeway. The cost of suburban land will, in these conditions, have become very high, probably higher than the value of the structures that sit on them.

I should doubt if it will happen this way. I should

expect governing attitudes and public opinion to have undergone quite substantial change and these changes in attitude will affect many aspects of urban living. One basis of this speculation is the large proportion of Canadians under 18, about 38% of the population—as against 27% under 18 in the U.K.

This very large, new generation, is already displaying new characteristics. Their parents have been mobile, changing houses and cities frequently. Even last year, three out of every seven buyers of NHA houses were buying their second one—and were quite ready to let the building industry, or the landlords, know all that had been wrong with the first one! They and their children have no great historical attachment to the local municipality that now forms an integral part of the metropolitan area of Montreal, or Winnipeg or elsewhere. They tend to visualize the metro area as a whole—perhaps father drives across it daily to his work—and can see little reason why the area does not have an area government, instead of a host of small municipalities.

These children, mainly under 18, have quite different standards from those of my youth. Many of them cannot remember when there was no electricity and all that means. They have grown up with the white kitchen slaves (refrigerator, stove, washing machine, hot-water heater), with automatic heating plants, with television, with automobiles. For many under 18, these are but the normal trappings of North American living. For me each remains a wonder I've seen unfold historically, an innovation, a luxury, perhaps even a status symbol. To these children, such things are not miracles of the family altar. More than us perhaps, younger people are inclined to regard these things as possessions to serve human purposes, and they may be able to take a more objective attitude to the existence of the gadgets. Certainly many teenagers have already shown they regard the family car as expendable! Perhaps after the first flush of enthusiasm, the new generation will see how the gadgets (particularly the auto) can easily enslave the suburbanite, and can just as easily stifle the real values of urban society if allowed to run riot downtown. Even now in some streets in the world, the car is denied entry.

Another feature affecting the present and future characteristics of our cities that may be undergoing change is the view on home-ownership—which, of course, is related to the major suburban expansion since the war. It is interesting to note that in 1958 about half the houses built in our metropolitan areas were for rent. In the cities, half the families do not own their own homes. For them, a trend towards more urbane forms is present even now—the search for more privacy and enjoyment in attached houses which are constituent to big cities. I've already mentioned some homeowners trade their houses more often than they do their kitchen stoves and fur coats, if not quite as often as their cars. Perhaps a new generation emerges that regards the house as a temporary convenience, to be adapted to the various stages of family growth. They marry younger in distinction to my generation, have a definite early period of saving (and apartment dwelling), a relatively short period for a family house, and then a relatively long period of expectation of the couple living alone together when the family has gone—the latter due to the longer life expectancy than in my generation. Against such a background, the house, its nature, its location, varies from stage to stage, the pre-childbearing and post-childbearing ages call for a high proportion of convenient, cheap, accessible apartments. And at any moment, this new generation is not tied: they have the car, and automatic heating and can leave the housing unit untended for days at any season. Perhaps there emerges a more realistic attitude to the house as an expendable convenience of existence rather than the prime symbol of solid bourgeois achievement. This is affecting the shape, the pattern, the character of our cities, and may do so in a major way in the future.

Associated with the changing population structure is a shift in the occupational and industrial one. There emerges a new social class, neither proletarian nor capitalist. This is the inevitable result of increased mechanization and productivity—the result of more and more assembly-line products, of more and more electronically controlled mechanisms (vide—new petro chemical plants that are highly automatized). As

industry pours forth more and more automobiles, and kitchen utensils, and lighters in this way, there result new complexities: in planning production processes and relating these to sales, marketing and specialized maintenance procedures. As you double output, these attendant activities increase perhaps four times, calling for new skills. And so there emerges a large new occupational, social class—the professional, technical, managerial groups in private industry itself, and in the service industries. As production grows, this middle-income class may grow faster than production itself, as it has been doing. This will affect the social structure and the shape of growth—industrial, commercial and urban. It has already affected the cultural, political and social values of our society. This class is new in scale and influence; it is large, it is young, and little is known of its future impact on culture and values.

The rapid growth in the private sector of our economy has however already raised questions as to the continuing adequacy of the public sector. Conferences like this one reflect the awareness of defects in the governing attitudes of public opinion. A few years ago urban redevelopment was a word hardly used in Canada; today, 18 major cities, along with the federal government, are making studies of their particular needs in urban redevelopment, and in some the bulldozers have already been at work and new things are arising in downtown areas. Town-planning has almost become a respectable word, and the city centres are being recast as intense administrative points—i.e. the nerve centres of the new complexes—rather than a place for factories and warehouses.

Already in the growing economy and urban scene there is a public awareness of certain scarcities—not of automobiles or other gadgets and goods of the private economy—but scarcities of public goods, and public goods that we need more of. As the cities sprawl, we know we are short of snow removal, short of adequate transportation, of proper sanitation and water supply, of parks and auditoria, of adequate housing for the old and very young, short of great downtown spaces for shopping and recreation, for city-ness, for the chance encounter with acquaintances: perhaps even some are aware of the shortage of downtown harmony, shortages of physical architectural discipline and compatibility, shortages of satisfactory management of urban growth. As the cities grow we are aware of shortage in the most important public industry of all—education. These are public goods, and in contrast to the never-ending profusion of private goods, the shortages of such public ones merit a new national attitude.

No Canadian product in the next generation will be more important than Canadian cities—the shapes and forms, the content, physical and cultural, their expansion, their renewal, their vitality.

In summary, the issues can be simplified. We should hope to have more and more citizens subscribing in thought, word and deed to something like the Athenian pledge.

In practice we should like to see this governing attitude of mind reflect itself in remedying what I, for simplicity, called the shortages in the public sector of living. The ways and means of achieving this call for discussion and action in different fields—in reorganizing local government, in rationalizing our urban transportation, in a fresh contemplation of education, for city-living in all its ramifications. Detailed design does not worry me: it will come as the other more fundamental issues are solved.

The Financial Post this week carries an editorial that throws doubt on our readiness to face this future. The statement reads, "In Ontario, only 60% of teachers have senior matriculation plus one year teacher training." And this is mentioned as the "basic qualification". You can already be sure of one thing about the metropolis of 1984: it will show that 25 years earlier the most important part of the public sector was being neglected. The attitude to adopt is not to regard education as having only a remote chance of creating the desired habits of mind, the proper governing attitudes of public opinion: rather, education is the only chance. When this Institute on Public Affairs moves to its summer conference to discuss "Changing Asia", I hope you'll have left these central problems of Canada's development in good hands. Governments, corporations, the citizens' movements have all to be led to agree on the means for the good life that can be lived here. ✦✦✦

Remarks by Stewart Bates to the Canadian Federation of Mayors and Municipalities and the United States Conference of Mayors—Chicago, May, 1960

CITIES OF THE SIXTIES

In the Cities of the Sixties, a great deal has already been determined as to their character and shape. But much, very much, is going to happen to the cities as they try to absorb another 40 million or so in North America.

The issue of urban growth is not difficult to state. No issue will likely exceed this in size and complexity, no perhaps not even national defence or concern with the backward areas of the world. Yet the techniques for handling present growth can hardly be said to be satisfactory. The issues of growth have for some time outrun local government boundaries, and maybe powers. To serve the present and future city interests calls for political finesse of the highest order, perhaps even political genius in the evolution of suitable forms of government. It took England a long time to evolve a satisfactory system of cabinet government, and the Commonwealth has begun the process of trying to align many different countries in a loose form for specific purposes. Perhaps the relations between the central cities and the myriads of jurisdictions surrounding them also require basic political rethinking

and experimentation with forms.

I propose to speak only about some aspects of the main issue of urban growth.

THE GROWTH

In North America, on this side of the Rio Grande, a prospective urban population increase of some forty million persons constitutes the central, dominating fact around which we must consider the future of our cities during the next decade.

This prospect is at least as inevitable as taxes, less certain perhaps than death, and death alone can confound its eventuality.

It has taken three hundred years to establish an urban population of one hundred and forty million on this continent. It will require only ten more years for it to grow by forty million. North America has to add to its present urban regions a new piece equal to the whole urban structure of the United Kingdom, and do it fast. In seeking to visualize this astonishing expectation, people have described it in terms of the engrossment of six to eight million acres of non-urban land for city purposes; they have measured the stands of timber, the trainloads of cement, the cargoes of ore, the aggregations of other resources whose use will be diverted to the building of cities. They have expressed the anticipated growth as a multiple of urban places with which we are now familiar. But who can imagine a gross of Omahas or four-score Vancouvers? To picture ten Los Angeleses is even more difficult than to say it.

These images of the process of urban growth are apt to be misleading. Those which allude to the use of resources imply that the mere acquisition of such resources might in some way constitute a major difficulty. This is not likely to be the case. And those descriptions which point to familiar cities on the one hand and to the multiplication table on the other suggest that the process comprises merely the accelerated repetition of that which we have done in the past.

We will not, however, be doing over again something we have done before. There is already set out on this continent, as an historical legacy, an urban matrix on which to build. It is not likely to be a matter of adding to this matrix by increasing the number of cities. It is usually pretty much a matter of building on to the cities we have. And in making this extension we will have full recourse to current technology and to our present institutional framework, each of these is different from that with which urban society built in the past. The past can afford only a partial guide, therefore, to the possibilities of the future.

Perhaps it is not wise to speak at all about urban growth as if it were one thing. Perhaps it is entirely vain to attempt to describe it by crude metaphors and glib similes, as if it could be comprehended by a single dimension. One thing we do know about the growth of our cities: It takes place as the result of thousands of individual decisions and events, which though interdependent and related in their execution, are independent and discrete in their origins. Among cities the process is diffuse and within them it is fragmentary, protean and particulate.

It will fall upon the local governments of our two countries to perform the main part of the task of receiving and accommodating the growth of our cities. The basic forces contributing to the growth are not accessible to present forms of municipal control or, for that matter, possibly not even to any other kind of control.

The increase of population and the declining labour requirements of non-urban productive activities mean simply that we will have more people, and a larger proportion of them, taken up with urban activities. There is nothing that local government can do about it, even if it wanted to. The mayors of North America are not going to have much to say about how much urban growth there will be in the "sixties". You will have a great deal to do with the character of the growth, however, whether you wish to or not.

THE LOCAL GOVERNMENT ROLE

The task of local government in providing for the urban expansion of the "sixties" is not too difficult to state, although it will not be easy to perform. It does not demean the role of local government to define its task in the simplest and most rudimentary terms as the provision to the citizens of a limited number of essential public services:—roads and communications, water, sewer, police and fire protection, education and

health and welfare services. Over the next decade, these services must be made available to a much larger number of people than now receive them, and over a wider area than that to which they now extend. Stated in this way, the problems faced by the mayors of North America are easy enough to understand, if not to resolve. The task at hand is essentially practical and material, and the issues are hard and familiar.

First, there is the issue of what services local government must accept as its responsibility. To a degree, this question will be resolved by the willingness of our urban citizens to provide municipal revenues to meet the cost of local services. But local taxation does not represent the only source of municipal revenues. The cost of some local services can be recovered in whole or in part by direct charges to the users. In its major fields of outlay, however—in education and in road building and maintenance, as well as in many of its other functions—municipal government simply does not have recourse to any practical method of recovering its costs from its citizens as users of services rather than as taxpayers. This means that for the most part the heads of our local governments, in what they do, will be subject to the constraints of revenue that can be raised from local tax sources, or that can be obtained from other levels of government. These revenue sources will set a limit to the range and standard of services that local government can provide for its citizens.

It would be inappropriate for me, as a public servant representing one of the other levels of government from which mayors will undoubtedly continue to seek greater financial assistance, to comment at any length on this particular issue. Constitutional practice in Canada does not encourage public servants to air their views on policy matters.

It is possible to say, however, that the subject of local government resources, whether from local taxes or from financial aids by other levels of government, sits squarely in the middle of one of the great issues of domestic public policy today. The issue rests on the allocation of our economic energies between the production of private goods and the provision of public services—such as education, roads, urban redevelopment, air and water pollution control and national defence.

It is not the emotion-charged issue of private enterprise embattled against public incursions; it is not this at all. It is rather the issue of how we divide our energies between two broad classes of output—those whose distribution and individual levels of output can be effectively handled through a competitive market process, and those whose output and distribution cannot be determined by any known kind of market mechanism and must therefore be decided as matters of public policy.

JURISDICTIONAL ISSUE (URBAN REGION)

Whatever resources municipalities find themselves able to devote to their tasks, there will remain the important matter of using these resources effectively in preparing the way for the continuing and expanding process of urban growth. As municipal services are extended over ever widening areas, effective performance will be made increasingly difficult by the old, arbitrary framework of municipal jurisdictions.

In all the larger cities on this continent, and in many of the smaller ones, the area represented by the urban entity—the territory over which there exists a close physical interdependence of local government services—is much larger than that over which any single local government has jurisdiction and authority. This is not merely because cities have increased in population. The widened accessibility of land made possible by the diffuse penetration of the automobile, has enabled the areas over which there is continuous urban settlement to grow more rapidly than urban population. And beyond these areas of uninterrupted urban settlement, rebellious colonists have established footholds in the hinterland.

Nevertheless, satellite communities, who owe their livelihood largely to the proximity of the mother city, do not cling to her maternal authority and loving care and represent all conceivable forms of organization and disorganization. The spatial extension of centralized municipal power has not undergone the same rapid growth that has been experienced by the area containing the city itself and its unmanageable colonies. The extension of urban services therefore

has become a matter of cooperation between local governments and authorities.

The incongruity between the actual present size of today's cities and the divided jurisdiction within these areas, stemming from the persistence of municipal boundaries established in the days when a man could walk to work, offers a choice of three outcomes —coalition, cooperation or calamity. There are a lot of cities on this continent and there is little doubt that each of the three methods will be given a fair try. We can only rest our faith in the competitive adjustments of a free society and hope those centres which choose the primrose path will damage their growth opportunities and alter the national distribution of urban growth in favour of the virtuous.

LAND USE AND TRANSPORT

Crucial among the many decisions local government has to make is the layout of the spatial pattern for growth. It is in the designation of land uses within the areas subject to its control that local government makes its most far-reaching determinations of the shape and density of the emerging city, of the pattern of traffic that will result and, consequently, of the cost of roads and of other services that must be provided over the geographical expanse of the urban area.

The responsibility for designating land use patterns can be viewed in an over-simplified and abstract manner as a problem of achieving transportation economies for the urban area as a whole. Historically, it is true that the infringement of private rights inherent in the public power to limit the uses to which urban lands may be put, stemmed from recognition of the abuses that can fall on private owners when neighbouring owners develop land for purposes that are in conflict with or obnoxious to the immediate environment. Zoning practices also have a part of their origin in the desire of home owners to exclude undesirable neighbours. But the time has now come when use of these public powers must serve a purpose that transcends avoidance of local conflicts in land use or the defence of enclaves of gentility within the city.

Each city can be visualized as an aggregation of contiguous property sites, each devoted to a particular purpose and each generating a more or less regular flow of trips carrying goods and persons to and from that site. From the residential areas, the workers must get to work and back home again, the children must get to school and back and the shoppers must get to market and back. Among the sites where people work, there is a vast interchange of goods and of people and of paper. If one knew of all the activities that were to be carried on in a city, if one knew pretty well how much room each activity required and if one were very good at arithmetic, it might be possible to conclude—after due consideration—that the whole business should be arranged on the land thus and so, because in this particular matter there would be a minimum of transportation difficulty and the citizens would be able to perform their jobs and seek their pleasures with the greatest convenience and the least cost.

The establishment of a pattern of land uses for the growing parts of our cities establishes the main outlines of the transportation network—subject, of course, to advice of the traffic engineer and the consensus of the community on the respective roles of public and private transportation. This does not mean the transport network should derive automatically from some preconceived land use pattern established on the basis of partial criteria; the apparent necessity for certain kinds of industry to occupy particular sites, the peculiar suitability of a topographical feature for some other kind of installation or the profit requirements of speculators who have bought in the expectation that the properties would be assigned uses that would assure a larger and quick profit. It should probably mean the reverse. It probably means that in establishing directions of growth and patterns of land use, the community should use as its primary criterion the implications of such a pattern on public outlays for roads and transportation services which the land use pattern will entail. It would be impossible, of course, to consider the matter of transportation costs as the only criterion in making public decisions about land. But this criterion does offer a potentially objective measure of the public interest and one that involves consideration of the urban area as a whole.

It may be that research will reveal in the course of time that major economic savings in transportation

and road costs cannot be sought through changes in the more or less arbitrary criteria by which land use patterns are now established. The most careful students of urban traffic may possibly reach the conclusion that transport costs are much the same through a wide variety of land use patterns and that the search for economically superior arrangements among the many feasible solutions is not worth the effort. If this proves to be the case we will, of course, be able to continue with our present devices with more confidence; and we may rejoice in the measure of freedom that the unimportance of one particular suspected criterion gives us. However, the research task has not been done, although one sophisticated and thoughtful project is now being carried out in this great city of Chicago.

PLANNING THROUGH TIME

Whatever techniques are used to establish the spatial pattern for growth, the individual components of growth are to be viewed against various time-horizons. It is often charged that in the provision of urban services we do not look far enough ahead. It may indeed be that a very good case can be made for the opposite view—that we worry too much about the distant future with its manifold uncertainties and not enough about the manifest needs of today. Merely because a structure will last for half a century does not mean we have to guess what sort of structure would be appropriate in 1980 in order to build it well today. If we do not need it today it is unlikely that we have to build it, although of course there are installations where it is wise to provide capacity for the future when meeting an immediate need. This applies for example, in water-purification plants, sewage treatment facilities and arterial road construction. Even in these instances however, the time horizon for the planner has nothing to do with the life expectancy of the installation itself. To reach a sound judgement about the investment to be made one need look ahead only as long as it will take to utilize the excess capacity provided. At that time new decisions can be taken in the light of information then available.

Perhaps the longest time-horizon confronting local government occurs when land is to be held free from development for many years in order that open space may be maintained. It does not follow that all land so held will eventually find use as public open space. It may be that other uses, now unperceived, will occupy parts of these key areas. It is obvious that the retention of these open areas, vital as it may be, is complicated almost to the point of impossibility by our present systems of metropolitan jurisdiction. These difficulties have given rise to widespread discussion about the acquisition of development rights in land in the United States, and to isolated actions such as that by Canada's National Capital Commission, which today is buying 37,000 acres around Ottawa in order that the capital city may have a green belt and a defined periphery. The civic value, and indeed the final form of that green belt, will not be appreciated for at least a generation. This is a rare example of a long time-horizon in city building.

THE SEARCH FOR BEAUTY

As I speak about time, my thoughts turn naturally towards the future and to considerations about it that somewhat transcend the hard, down to earth matters to which I have referred thus far. Now local government leaders are essentially practical people. Their job lies in organizing both in space and in time facilities for serving us with such humble necessities as pure water, garbage collection, the disposal and decontamination of our bodily wastes and other offal and corruption, police to protect us from the ravages of one another, roads so that we can move about and schools to enable our young to survive in a world of technology which so thinly clothes the "poor bare forked animal".

In meeting the pressures of these ever-growing mundane needs, you and your governments inevitably are going to fashion great parts of the city as it will appear tomorrow. In the act of fashioning you have three choices. You can single-mindedly execute the correct functional network of roads, pipes and wires and leave questions of city appearance to luck. Or you can take the opportunist attitude to beauty, like Blake's man "who kisses Joy as it flies". Thirdly, you can pursue beauty relentlessly, as the mistress who colours and dominates all the day-to-day decisions in

the making of the city.

Our cities are becoming too vast, too diffuse and comprehensive to conform to any single boundary-to-boundary design. Much that they will contain will be put in place by others than the municipality, and conceived in response to impulses those others have not yet felt. To these projects yet unborn, no fixed design for the city can accommodate. But if there cannot be a fixed design, there can be a fixed determination that whatever the city builds will be good to look upon. These municipal lands and works are going to cover a third of the city—far more of its fabric than any private interest can hope to leave behind. The quality and consistency of the municipal property will go far to give the city its stamp and flavour for better or for worse. The first attitude to beauty I have described, of concentration on practicability, will leave behind a city that looks indeed as though its leaders had thought of nothing but sewers, slaughter-houses and street-widening. The second attitude, of smiling gratefully on beauty when she is by chance encountered, will leave behind a city where ugliness has an equal chance to be encountered. The third approach, of unremitting pursuit of beauty in what you have to fix in place, is the one I commend to you. It is the attitude which will make the citizens realize in the years ahead that you were constantly on the lookout in your city for those places where everyone could see:

"the singing masons building roofs of gold".

It is more than merely possible for you to look forward to our cities as the natural habitat of beauty. It is even necessary for you to do so. I said earlier that it does not demean the role of local government to define its task as the provision of essential public services. But it does demean you personally, and it demeans your office, and it demeans the people you represent to think of these services in a setting any less beautiful than the opportunity of the future offers.

More than this, the false humility of philistinism can deprive you of the best means to evoke the inspirational response that is always latent in the people, and that must be marshalled before you can accomplish satisfactorily even the most hard headed part of the task before you. The mere conception of an urban area as an interdependent economic unit implies a program of services that are functionally and territorially integrated. The intelligent application of such a program will require the agreement of your own electorate, and the support of other local governments in the same urban area. You will not obtain the consensus vital to this task by putting forward plans that are merely practical and very complicated. You must offer an objective worth the effort of the public and capable of their appreciation for its grace, beauty, and fun.

Beauty is not a wanton, to be prodigal of her favours by caprice. Nor is she to be easily tempted by invitation. She must be wooed, afresh every day, and wooed boldly. You may not be successful in winning her glances at every stage of the great task of city building before us. But the municipal calamity of your period in office will be manifest for at least a generation if you do not try for the best. ✦✦✦

A talk given by Stewart Bates
to the National Seminar
on Design and Planning,
Doon School of Fine Arts,
University of Waterloo,
May, 1964.

CIVIC DESIGN

I should like to speak on two things—civic design, and the place of the administrator in its achievement. Dr. Giedion, the great architectural historian, remarked to me that years ago administrators were part of a world whose main function was to hamper new architectural trends and make new realizations impossible. He conceded that this was no longer so. Hence my twin subjects of civic design and the place of the administrator. They are no longer in necessary opposition.

As to civic design, I am not quite sure how to define it, or if I could whether many people would accept, or even understand it. And the problem of appreciating design is not confined to its civic aspect—a woman buying a lamp in a store may not be quite sure of its appeal till she has tried it on her husband and her neighbours. Somehow even in product design, we often lack confidence in taste, are apt to be inarticulate, to be unsure of the features that make the product dull or unsatisfactory, whether it is a house or some other manufactured thing. This is because the design of anything from a city to a lamp or a bridge is a choice of thousands of alternatives. There are laws of judgment as to design, even in making a table, but known only to a few it appears. Most of us are a little insecure, inexperienced, confused with the pointless variations in designs of manufacturers. We have been subjected to a lack of sense and sensibility, and as a result we ourselves have lost our sensitivities. Yet inherently even as children we do know something of beauty and can feel aesthetic gratification even without knowledge of the laws of design. But for the many complex products—even cities—we now apparently need to learn something of the range of choices confronting us, and of the thousands of possible alternatives of which this particular product is only one—and perhaps a bad one. Perhaps at school we could learn more about the disciplines of design.

In city design I was struck by a visit to Ionia, to Miletus and Priene; and two things startled me. In the first was the birthplace of Western philosophy, where the first rational myth was born, the myth that gave wings to man's mind, and power to his hands to conquer and transform the Mediterranean world. It is the latter that interests us tonight, power to transform the goods of nature to man's purposes. The second startling thing was at Priene. Here a small community of around 5,000 people could afford to to create two schools, one for the mind and one for the body, a large agora assembly place and market, a

theatre, a council chamber as well as religious buildings. The private houses were modest. The people took positive and explicit pride in their *public* life and public places. In North America the Maya Indians did the same—they built proud cities. In these and other civilizations, there is surely a lesson for us today, a lesson in civic design.

Civic design is a community notion. It is almost antithetical to North America. It does not fit in with our notions of individualism. Indeed civic design as a concept is almost in conflict with our basic philosophy, so much so that few North Americans know what you people are talking about when you raise the subject. Generally you are regarded as a group of long-haired theorists, even aesthetes, somewhat remote from reality—i.e. the virtues of individualism. There is only a handful of you concerned with civic design, a subject on which broad community desire is absent, perhaps even hostile in part. Community notions are seen as anti-individualist in some quarters. The implications of good civic design involve rules and regulations and these are contrary to the habits of thought of many Americans, indeed even an abrogation of their rights to do as they see fit with land or private property. The individual pays the shot as a private citizen, makes his plans for himself in most part, and social planning and good urban design, when they happen are too often accidental rather than the result of communal or individual pride in public placement. A public administrator cannot furnish this want.

Now we leave considerations of design, and turn to administration. The architect despite his competence is usually allowed to make little contribution to civic design. His employer usually wants an individual building in a special way. Sometimes the architect gets a chance to do a piece—a group of buildings say —that allows him to consider design in a wider sense. And if he is very lucky and has a whole complex to do, so much the better. But this is the exception.

There is no university tradition in Civic Design. There are departments that approach it tangentially. But administratively we must admit the truth that there are few departments, even in governments, that are allowed to apprehend and comprehend and make effective good civic design. There are good parts—good buildings, good bridges—but they are lost in the general chaos.

If you ask me to tell you how to conceive and effect good civic design, I would as soon you asked me to tell you how to write good poetry or good music. But there are features that are common to such good civic design as we see. They have order, not chaos, with some element of the aesthetic in that order. They have convenience, for young and old, pedestrian and motorist. They have economy, not in money necessarily, but in the more essential rules of composition: and they have comprehensibility—everyone can recognize them, and feel himself part of them.

Good civic design is not quite the same as good urban planning. One can visualize a metropolitan area, say Los Angeles, with excellent highways, with a Niagara of concrete grinding through the orange groves, with fine parking, shopping centres and the like, and yet almost bereft of any sense of civic design. One can equally visualize areas, such as the city of Amsterdam, one of the most beautiful in the world, but now functionally deficient for modern metropolitan requirements.

I suppose the main difference between the two involves the sense of human-scale. Good design offers all that urbanity can give, along with other special offerings to the five senses of man, to the human eye and hand, to smell and to his personal manageability. He remains a person, with judgment and joy in his environment—whether gazing at the Forth Bridge or walking in Harvard Yard.

A doctor has to have an image of a healthy man before he can diagnose the ailments of the individual. So those of you interested in civic design have to have a vision of what the city should be like. The vision will probably be mapped by architects and planners. To effect this, the architects and planners will probably have to be more rounded types of men than they now are—wider in vision, more expert in civic design, in the social sciences and the like. No one man can be expert in all these. But inter-disciplinary teams can be devised who will become "experts in totality".

At present there is no place in our cities for such teams. They are not wanted. Little need for them is felt. Probably we need well-rounded citizens more than well-rounded planning teams. There has to be a public demand and leadership for good environment—environment for the good-life, for the plain man and his family to have dignity and opportunity, a place that can satisfy most of the workings of the human heart. Our cities are far from that. If you admire clearness, precision, moderation, good sense, you won't find much to admire—and more important you will find few people who will be complaining. We have become accustomed to things as they are, and have almost forgotten what they might be.

The civic scene—the lay-out of streets, the sites of buildings, their shapes and textures, the street furnishings, the pavings, the posters, the lamps, the parks and benches and fountains, the quiet shallows for human retreat—this total civic scene has in no place been designed as a whole, nor can it be. This whole is greater than its parts, but each part must be designed well, and now.

The situation is not easy. The cities will continue to grow fast. The urgencies of political life restrict the possibilities open to urban planners. Yet daily administrative decisions have to be made that will affect the urban fabric for a long time to come—and many of these decisions once made are difficult to reverse. Administratively all our planning teams can do is to make bold plans, and to be prepared to be ahead of public demand in their civic schemes.

The pace of obsolescence increases with city growth, so that the chances for civic design and redesign are constantly growing. Fortunately at the same time national wealth seems to be growing. The proportion of wealth going to armaments and other fixed charges tends to decrease, leaving us the opportunity to spend more on social amenities of our cities. Even without this added wealth, new priority should be given to city design—to order, convenience, to economy, to comprehensibility and grandeur, and to human scales as well.

The city is the end-product of the history of its people. It cannot be changed by any simple device. It is as complex as the community itself, and the result primarily of individual decisions made almost at random. But like a garden it has to be redreamed constantly, reviewed, recast, renewed, revived. We have the human and physical resources now. We have only to give a new priority to city design—order, convenience, economy of living and comprehensibility by humans, on a human scale.

I would return to the Athenian pledge—a full thousand years ago:

"We shall never bring disgrace to this our city; we
shall fight for the ideals and sacred things of the city;
we shall revere and obey its laws; we shall strive
unceasingly to quicken the public sense of civic duty;
that in all these ways, we may pass on this city,
greater, better, more beautiful than it came to us."

A titre de rédacteur de Habitat, je crois devoir fournir une explication à nos lecteurs de langue française. Selon notre désir et la ligne de conduite que nous avons adoptée, nous publions dans chaque numéro de cette revue des articles en français. Toutefois, ces discours de Monsieur Bates, ont été écrits et prononcés en sa langue maternelle. Aussi, nous avons cru que la traduction de ces discours ne rendrait pas justice à nos lecteurs de langue française ni à la présentation de la matière elle-même.

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 120 screen, copper halftones are by Bomac.

CENTRAL MORTGAGE AND HOUSING CORPORATION

SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT

OTTAWA, CANADA

HABITAT

JULY-AUGUST, 1964
JUILLET-AOÛT, 1964

HABITAT VOLUME VII NUMBER 4

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class matter by the Post Office Department and for payment of postage in cash. Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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FRONT COVER '*Farmhouse and River*' *below Montmorency by Stuart Wilson, School of Architecture, McGill University.*

INSIDE COVER *Barn Raising, Gaspé, NFB.*

THE MARK IV RESEARCH HOUSE

To encourage the development of new construction ideas by using the latest materials and taking a different approach to those already familiar, the National House Builders Association has built four research houses in Canada. The program sponsored by the Association has been undertaken with assistance from Central Mortgage and Housing Corporation and the Division of Building Research, National Research Council.

The Mark IV Project, opened on September 25, 1964, on Rockcliffe Air Station by the Honorable J. R. Nicholson, P.C., O.B.E., Q.C., M.P., Postmaster General, is a natural extension of previous experiments. The footings and basement walls of the unit are built entirely of wood treated with a preservative. The wood system is readily adaptable for winter construction and can be insulated and finished for additional habitable rooms.

Prefabricated partitions were used wherever possible to achieve speedy and inexpensive erection. A 16 foot partition was placed in position by one man in six minutes during the experiment.

An improved recirculating sewage disposal unit has been installed in the project. A modification of previous systems, the installation is hoped to further explore the possibility of eliminating sewer mains and laterals in housing developments.

Central Mortgage and Housing Corporation made arrangements for several pieces of radiation-processed wood components to be installed in the house. The entrance door sill and some panels under the windows were made of this processed material. These components will be analyzed to determine abraison resistance, dimensional stability and weathering qualities.

Many other innovations will appear in the Mark IV and the whole house will be undergoing constant evaluation by technicians from NRC.

The design and construction of housing accommodation suited to the essential requirements of modern living while still maintaining moderate costs is one of the greatest challenges facing the house building industry. It is hoped lessons learned from the Mark IV house will provide a partial solution to this problem.

✦ ✦ ✦

Low-rent public housing on land acquired and cleared under the urban redevelopment section of the National Housing Act has so far been the most common form of renewal in Canada. This housing in MacLean Park, Vancouver, will eventually form part of a large, and almost totally rebuilt, neighbourhood.

PHOTO FEATURES

A MILESTONE IN URBAN RENEWAL

by Stanley Pickett

The expression "urban renewal" was first coined in the United States as recently as 1954. It is surely extraordinary that in the short period of ten years the concept of urban renewal has become generally understood by non-professional people and has become almost an everyday function of governments throughout the United States and Canada. The expression has crossed the ocean to the old world and in the same period it has been possible for books to be written—too many books perhaps—on urban renewal in Europe, in the United States and in many other countries.

At the end of the second world war the urban fabric of most of the cities in the western world had seriously depreciated in quality through the long period of the depression of the 1930's and the ensuing war years. Quite apart from the necessity of rebuilding areas of war damage in countries directly affected, there was an imperative need to concentrate the building effort in cities everywhere on housing production. For these reasons it was not until the late 1940's that politicians, professional and business men recognised that some kind of comprehensive program was essential if the urban future was to hold any other promise than blight and decline, particularly in those older areas near the heart of every urban complex.

This recognition led to the development in several countries, but primarily in the United States, of a variety of programs aimed at halting the spread of urban decay and then replanning, modernising and rebuilding. The farsighted, from the beginning, recognised in the basic objectives of that range of programs not merely a return to past conditions but an advance to a buoyant economic and social life and even to an urban aesthetic worthy of the twentieth century. As these programs were extended the need for a simple expression to cover a wide variety of activities became obvious and led to the gradual acceptance of "urban renewal" as the comprehensive term.

Many governments, local as well as national, have since set out on the road of renewal. They have marched at varying speeds, in different companies and with differing goals. The Federal Government in Canada began this journey in 1949. The purpose of this article is to review a few landmarks along the way and to examine a vital milestone which, with the recent amendments to the National Housing Act, now lies behind us.

We must look back to the beginnings of urban

redevelopment, as it was then called in Canada, in 1949 to understand the importance of the recent changes in legislation. In that year the National Housing Act contemplated for the first time the clearance of slum areas. Slums were thought of as areas of bad housing breeding intolerable social conditions, crime, vice, fire and delinquency. It was thought that federal aid would allow municipalities to get rid of these festering sores on the municipal body and to use the cleared areas for decent housing for low-income families. In 1954 the re-use provisions were slightly extended to include other public uses of land. Very little was done, under the 1949 and 1954 Acts. By 1956, under the impetus of experiments in Toronto and St. John's Newfoundland and with the inspiration of President Eisenhower's Committee's Report in the United States, it was realized that the narrow re-use of cleared land and other limitations of the 1954 amendments were far too restrictive and that fundamental broadening of the redevelopment program would have to be made. In 1956 the Federal Government therefore amended the National Housing Act and in so doing put Canada on the highroad of urban renewal. The changes were for the day far reaching. The Federal Government became able to share in half the actual cost to a municipality of acquiring and clearing blighted areas. The re-use of the land was removed from the restraints of public purpose. It became possible for the first time for land to be cleared, for the people displaced to be rehoused elsewhere and for the land to be re-used for the most appropriate purpose as ascertained by the municipality. The last change did much to liberate urban renewal from the negative idea of eliminating intolerable conditions to the positive concept of building fine cities in our time.

It may be interesting to review briefly projects which have taken place under the legislation as changed in 1956. About 600 acres in eleven Canadian cities either have been cleared or approved for clearance. These range from a small project of 1½ acres in Halifax to the clearance of a 170 acre tract of residential land, isolated within a major industrial area, in Sarnia. The Federal Government has agreed to share in this acquisition and clearance of land at an estimated cost of over $80,000,000 and is committed to pay approximately one-half as its contribution. The Federal Government expects to share in over $20,000,000 of recoveries from the disposal of the land so cleared.

In an article of this kind, there is neither time nor space to write at length about projects completed or underway. Some of the illustrations will serve better than words to show what has been done. Fine housing projects have been built on cleared land in a number of cities including Montreal, Toronto and Vancouver. Other excellent projects have been built to accommodate people displaced by the clearance of blighted areas. Some land, too little unfortunately, has been disposed of for private redevelopment of high quality. The best example of this co-operation between public and private enterprise is perhaps the proposed Cornwallis Centre in Halifax where a group of British interests is preparing to invest over $30,000,000 in the reconstruction of 17 acres of cleared land at the heart of the capital of Nova Scotia. Similar opportunities for private investment have been created in Saint John and Windsor and will come forward in Vancouver, Winnipeg and other cities in consequence of programs already approved.

Easy summations of progress to date are however misleading. The value of redevelopment is to be measured, not in the profit and loss statement alone, but in the character and spirit of our cities and in the quality of the lives which Canadians are able to live in their environment. By these measures redevelopment has been only moderately successful. We have come to see that redevelopment by itself is not leading to worthy cities for the twentieth century. It leads rather to a fine series of projects of individual value standing in a steadily declining environment of shoddy, run-down housing, stores and industries, served by antiquated streets designed for the horse and cart but forced to serve increasing floods of the two-ton monsters with limited and depreciating efficiency. The money poured into urban redevelopment programs by all levels of government, while having project value, has had far less total community value than had been hoped.

The cost of redevelopment is high. For example, in the City of Toronto the acquisition and clearance of land is costing, on average, over $300,000 for a single acre. In one block on Queen Street, in the Moss Park area, the acquisition and clearance estimate ran as high as $800,000 for a single acre. That block had to be excluded from the project perhaps to the detriment of the design for redevelopment. In Montreal comparable costs have been the rule. Yet, in the City of Toronto alone, we learn that there are at least a thousand acres where some action is needed if slum conditions, now incipient, are not to mature.

We have learned from social investigation that some of the expectations of the humanists in urban redevelopment have not been realized. Serious social problems may remain in the newly built housing, and other problems are transferred with people relocated to different parts of the community. More specifically, the total disruption of redevelopment may cause a loss of identity between people and the place in which they live. It is hard to be forced to move in your maturity, or old age, from a downtown place which you have known for a lifetime to some suburban housing project no matter how well-designed or conveniently located.

And so from the road of urban redevelopment we have come to see another possibility, a much broader concept of the renewal of the city, an approach which may liberate the city from the bondage of blight and from the compulsions of redevelopment alone. This concept calls for the augmentation of unavoidable redevelopment with other planned activities, rehabilitation and conservation. To understand the intent of the amended National Housing Act the meaning of these terms must be clearly stated. Rehabilitation is used almost in its dictionary sense. It means the repair, renovation and alteration of structures in order to bring them up to reasonable standards of construction, safety and occupancy. Rehabilitation also encompasses parallel improvements to the environment. It is clear that no man is going to invest money in improving property when the streets, parks, schools, utilities and landscaping around him are indifferent and uncared for. Rehabilitation demands improvement of the whole environment. It involves public action and private action. Public action is required in repairs to streets, tree planting, extensions of playgrounds, the provision of parks where these are needed and do not exist, repairs and extension to sewer and water mains, the replanning of municipal street systems to eliminate through traffic, where that is necessary, and to facilitate the proper flow of heavy traffic and of public transportation convenient to the neighborhood. At the same time rehabilitation calls for improvements to all the structures in the area so that in the end the whole neighborhood is given useful life for an extended period.

Rehabilitation accompanied by conservation seems to be the best means which has yet been identified to reduce future demands for total clearance and redevelopment. By conservation we mean purely municipal activity intended to keep the urban fabric in good condition. It is clearly pointless to repair the environment and to encourage substantial re-investment in housing and commercial properties if over the years ahead the area is allowed to decline again thus bringing about demands for further comprehensive rehabilitation in ten or fifteen years time. The municipalities have power in many provinces to require that buildings be kept up to a reasonable standard of maintenance and that occupancy is in accordance with the law. Any municipality of course, has in its own hand, the repair and maintenance of the environment in which all structures stand.

The new amendments to the National Housing Act make it possible for the Federal Government, while continuing to support redevelopment where that is essential, to support rehabilitation on a fairly large scale through a system of grants and loans to provinces or municipalities, accompanied by provisions for insured or direct loans to persons whose residential properties stand in areas designated in an urban renewal scheme for rehabilitation.

Perhaps the best way to set out the impact of the new legislation is to describe a hypothetical series of circumstances in a Canadian city. A city, particularly a large one with its own town planning staff, may have formulated clear ideas as to where, and what

The problems of immediate environment typical of blighted areas. Even where structures can be repaired, better paving, landscaping, access, parking and garbage collection arrangements are a prerequisite to genuine rehabilitation.

The creation of better environment through redevelopment must continue when existing structures are so depreciated that rehabilitation is not physically or economically feasible. The ingredients of good environment here include trees, grass, paving, human scale and good municipal facilities. Regent Park South, Toronto.

Higher density redevelopment near the core of metropolitan areas has produced a variety of housing forms, high-rise apartments, maisonettes and row-housing. Intensity of use requires extensive paved surfaces and generous provision of playgrounds.
Les Habitations Jeanne Mance, Montreal.

Physical depreciation is not the only determinant of renewal. Functional obsolescence and errors of location in the past have occassioned redevelopment action. This 172 housing area in Bluewater, Sarnia, was virtually surrounded by petro-chemical industries to the prejudice of both residents and industry. The area has been cleared and is being disposed of for industrial purposes.

kind of, urban renewal action is needed. There are however smaller cities where planning staff is at a premium, where some general examination of the whole city is necessary before the municipality can be sure that it wishes to proceed with an urban renewal project. In those circumstances of uncertainty a municipality may first choose to conduct an urban renewal study under the provisions of Section 33 NHA. These studies are not new. They were introduced into the Act in 1956 and over forty municipalities have availed themselves of the federal grants offered. The purpose of an urban renewal study is to identify areas of blight, areas where redevelopment may be needed, areas where rehabilitation may be appropriate, to identify housing needs and to determine what kind, how many and where housing units should be built. Of course in some urban renewal studies the result may be negative. It may be found that planned urban renewal action is not necessary and that some simpler measure can meet the needs exposed by the study. The urban renewal study remains in the legislation in order that municipalities which do not know what their needs are, or whether indeed they need renewal at all, may find out with the financial assistance of the Federal Government.

After an urban renewal study has been made and areas for urban renewal treatment generally identified, or in larger municipalities where the municipal staff have identified areas for various kinds of urban renewal, the next step under the new legislation is the preparation of what is called an urban renewal scheme. An urban renewal scheme is made, under the provisions of Section 23 of the Act, by a province or municipality. It is a scheme for renewal of a blighted or substandard area and includes a variety of documents, reports and statements of administrative technique. It will, for example, provide a plan of the new land-use proposed, a plan showing new arrangements of streets, changes or improvements in municipal services and facilities, a plan which is in effect the development plan for the area. An urban renewal scheme will of course designate buildings and works which are to be acquired and cleared for redevelopment purposes. It will identify areas where redevelopment is not necessary but where rehabilitation of structures and environment is required. It will describe the methods which are planned for that rehabilitation and will propose techniques for controlling maintenance and occupancy standards in the future. The scheme will include a housing plan showing how people displaced by the action proposed are to be accommodated. The scheme will also provide provisional estimates of the cost of implementation. As urban renewal action inevitably has a profound influence over wide areas and is in turn affected by all other dynamic changes going on in the city, the Act provides that the urban renewal scheme is not to be prepared in isolation but within the broad framework of a development plan for the municipality.

Clearly the preparation of an urban renewal scheme will be an extensive undertaking. The municipality may wish to retain consultants and employ additional staff to undertake the detailed town-planning, economic and social studies which will be necessary. In view of the importance of these schemes, and the degree of professional service which will be necessary to prepare them, the Act now provides that the Federal Government will make grants of up to one-half the cost of the preparation of the urban renewal scheme. After the scheme has been completed it will be referred to the municipal council which will decide whether or not the scheme forms an acceptable basis for action. Should the municipality decide not to implement the scheme this is of course their perogative. All renewal action under the Act is dependent upon the initiative and acceptance of the municipality itself. If the municipality does approve the scheme, it would then be referred by them to the provincial government which would either accept or reject the scheme as the basis for action. It would be improper for me to speculate about the response of provincial governments to the new legislation. However, even under current practice, several provincial governments may declare themselves willing to participate financially in the implementation of some aspects of an urban renewal proposal by a municipality. When, and only when, the urban renewal scheme is approved by a province would it be transmitted to

Central Mortgage and Housing Corporation where it will be dealt with on behalf of the federal government in much the same way as are present applications for urban renewal grants. In view of the complexity of the urban renewal action now possible, it is however likely that far more intensive professional negotiations with the staff of the municipality and province will be necessary in order that all parties may be convinced of the appropriateness of the scheme itself. Upon approval by the federal government the scheme would become operative and the area over which it is to be applied would become known as an urban renewal area under the provisions of the Act. The difference between an urban renewal scheme and an urban renewal area is therefore that a scheme is not necessarily approved by a government but is a program for action prepared by staff, whereas the area comes into existence when a scheme is approved by the participating governments.

When the scheme has been approved, the Corporation with the approval of the Governor-in-Council, may enter into agreements with a province or municipality under which a wide variety of assistance may be given towards the cost of implementing the scheme. Under the Act, before the recent amendments, the Federal Government's contribution was limited to one-half of the cost of acquiring and clearing land. In addition to that provision there has been added a wide variety of activities for which federal financial participation is also available including the installation of municipal services or works other than buildings, in the urban renewal area, the cost of preparing land for disposal including such things as new streets, site grading and the replacement or adjustment of municipal utilities and services. The Act also provides that the Federal Government may bear one-half of the actual cost of putting new municipal services or works other than buildings, into areas which are designated in the approved urban renewal scheme for rehabilitation. An area where little or no clearance is planned, but which is scheduled for rehabilitation could be given federal financial aid towards the repaving of streets, the introduction of a municipal playground, the repair of sewers and water mains, the planting of trees and other environmental improvements.

In addition to grants of wider applicability the amended Act provides for loans to provinces or municipalities up to two-thirds of the actual cost to them of implementing an urban renewal scheme.

In order to assist the owners of private residential property the amended Act provides that when an urban renewal scheme for an area has been approved, the Corporation may insure loans made by approved lenders to the owners of existing residential real estate shown for rehabilitation in the scheme. If approved lenders are reluctant to make loans in an area so designated then the Corporation itself is empowered to make loans. The value of this amendment cannot be over-emphasized. Generally speaking rehabilitation areas are old, they are occupied by people of modest income whose property may often be encumbered by one or more mortgages. Under the Act it will now be possible for these people to discharge their encumbrances and to have necessary work carried out to bring the structure up to minimum property standards with the aid of a loan, insured or made by the Corporation, covering up to 85% of the lending value.

There is one major change relating to the existing use of an area in which urban renewal action may be contemplated. Under the old Act any blighted area had to be predominantly residential or federal aid was not available. Under the recent amendments this restriction has been removed and, in consequence, urban renewal action may be assisted in areas of greatest need without a prerequisite residential use. Perhaps, a worn-out commercial area near the heart of the city will be the object of a municipal urban renewal scheme. If so the Federal Government stands ready to aid acquisition and clearance and the provision of the municipal utilities and services already described. The Act does not of course extend loan provisions to other than residential properties. Nevertheless, the ability to improve the environment and to remove blighting structures in non-residential areas is an important aid to sound renewal of the whole city.

Rehabilitation of buildings may be accompanied by redevelopment on small cleared sites to produce optimum improvement over a wide area. In this 67 acre area 700 buildings are to be rehabilitated and about 200 new houses built on small sites. Improved schools and recreational facilities are provided. Morton, Philadelphia.

There are already substantial indications of the interest of municipalities in the new Act. So much so that major projects, Alexandra Park in Toronto and North End in Hamilton, both formulated under the old Act, in their intent and method clearly foresee the amendments which have recently been made. These are projects combining redevelopment, rehabilitation and conservation to be undertaken by both public and private enterprise. The typical renewal project of the future, of which these may be the harbingers, might extend over an area of several hundred acres. Within the large area there will be small blocks or pockets of very bad structures. These are beyond rehabilitation. These worn-out buildings will be cleared and their sites redeveloped. There will be spread through the large area substantial tracts of housing which are in decline but which are capable of further useful life. In these areas municipalities will offer incentives to private owners through the creation of a satisfactory environment. Schools will be improved, playgrounds inserted, trees planted, streets made good and the street pattern rationalized. As the municipality offers this evidence of determination to maintain the area in good order, money becomes available to owners wishing to improve their property. The municipality in addition to the carrot of better environment and available financing will have the stick of by-law enforcement insisting on adequate minimum standards both of maintenance and occupancy. There will be in the large area other parcels of land where some manifestly suitable land use may be foreseen. These areas may be acquired and developed by private enterprise, or they may be cleared by public action and then offered for private development. In this way new commercial facilities or a variety of multiple dwellings may come into being in the area. These mixed, comprehensive projects, as we can see from experience in the United States and from the examples which I have mentioned in Canada seem to be the probable line of development in the next few years.

It is far too early to estimate the use which will be made of the new Act. That Canada has passed a milestone along the road of renewal cannot be denied. The opportunity has been created for an all out approach to one of the intractable problems of our time, the condition of cities in an era of rapid growth and urbanization.

The immediate availability of both professional staff and social capital at all levels of government will inevitably influence the rate of acceleration of local renewal programs. The fundamental importance of the new amendments lies not in opportunities for accelerated renewal, but in the removal of virtually all artificial intellectual restraints. Within the disciplines of money and men there is now no reason why urban renewal in Canada cannot meet the demands of each local situation, comprehensively, logically and effectively. ✦✦✦

Le présent article est le premier d'une série de quatre qui seront publiés dans cette revue.

L'Habitation en Suède

par Serge Carreau

Pour un pays comme la Suède, où toute chose possède sa raison d'être, où tout est planifié, il semble primordial de donner quelques observations générales sur la situation sociale et économique avant de parler des différents aspects de l'habitation suédoise. L'architecture suédoise est tellement liée à la vie suédoise, à l'Etat, qu'il serait injuste, je crois, d'en parler sans la situer dans son véritable contexte.

SITUATION SOCIALE

Sur le plan social, la Suède a évolué précocement et progressivement. Les différences de classes n'ont jamais été bien marquées. La féodalité, bien qu'elle ait existé en Suède comme dans les autres pays d'Europe, n'a jamais isolé les vassaux dans des conditions de dépendance outrée, et est disparue très tôt, sans révolution sanglante. Aujourd'hui, la classe ouvrière vit à peu près sur un pied d'égalité avec les autres, et par le truchement des associations syndicats-patrons, elle joue un rôle prépondérant dans l'orientation politique, sociale et économique du pays.

A tout stade de son évolution, ce petit pays a dû recourir à la planification; il a dû batailler ferme et

utiliser tous les moyens pour arriver à survivre à travers des conditions géographiques et climatographiques souvent défavorables, et une population peu nombreuse. Ainsi l'urbanisme n'est pas une science nouvelle pour les Suédois: dès le seizième siècle, des plans d'urbanisme étaient dessinés pour de nouvelles villes et recevaient la sanction royale.

Avec l'arrivée au pouvoir du parti socialiste au début du vingtième siècle, la Suède a subi de profondes réformes dans tous les domaines. Ici, j'aimerais ajouter que le socialisme suédois est plutôt conservateur et à l'opposé du socialisme communiste.

D'une part, cet Etat socialiste prodigue à sa population de multiples services sociaux: assurance-santé, assurance-accident, pensions, allocations diverses pour la famille, etc. . . . Inévitablement, à mesure que de nouvelles mesures sociales sont ajoutées, l'impôt particulier devient plus onéreux—le salarié moyen doit verser près d'un tiers de son revenu en impôt. D'autre part, ce même Etat s'est accaparé de plus en plus de pouvoirs, soit par la nationalisation de plusieurs compagnies ou industries majeures, soit par une main-mise et un contrôle stricts dans une infinité de domaines. Cela arrive la plupart du temps à la suite d'enquêtes publiques qui démontrent un besoin de planification dans ces secteurs. L'Etat a été jusqu'à socialiser la religion suédoise, originellement luthérienne. Les ministres du culte sont devenus des fonctionnaires de l'Etat, chargés de prodiguer l'enseignement religieux aux Suédois et de les guider dans leurs aspirations religieuses.

Mais, et c'est à mon point de vue le plus grand défaut de ce régime, l'Etat, par ses différents services et par ses contrôles multiples, a concouru à dépersonnaliser le Suédois. L'individu, d'une part, tend à s'assimiler à l'image prototype que l'Etat se fait de lui. D'autre part, à cause de tout le bien-être que lui procure ce régime, il manque souvent d'idéal et se laisse vivre à la remorque de la société. Sur le plan familial, l'Etat a pris tellement de pouvoirs que la famille a perdu son sens et n'est réduite qu'à la fonction reproductrice—quand il y a reproduction, car en Suède, une famille de trois enfants est une famille nombreuse. La mère travaillant à l'extérieur le plus souvent, l'Etat a pris en charge l'éducation de l'enfant, à partir de sa naissance jusqu'à ce qu'il soit capable de gagner sa vie. Ainsi, l'Etat supplée la famille, comme il supplée l'individu, comme il supplée plusieurs entreprises privées. Il considère enfin ses citoyens comme des enfants et va au-devant de tous leurs besoins.

SITUATION ÉCONOMIQUE

La planification et le contrôle de l'Etat ont eu de très heureux effets sur l'économie. Sur ce plan, en effet, la Suède devait résoudre des difficultés nombreuses: isolement, manque de variété des matières premières—la grande partie de son territoire est couverte de forêts-, difficulté d'obtenir certains produits vitaux, etc., et ce n'est qu'à force de recherches, de détermination et de planification que ce pays a atteint un niveau économique enviable. Il n'en demeure pas moins que l'économie suédoise reste à la merci de toute inflation. C'est pourquoi les économistes s'affairent à la planification dans tous les secteurs commerciaux et industriels et que le gouvernement applique un contrôle sévère pour éviter toute spéculation. En plus de stabiliser la vie économique du pays, cette planification a concouru à élever le standard de vie suédois à un très haut point, comparable à l'Amérique, et sûrement le plus haut en Europe. Le mot standard d'ailleurs est devenu un mythe que la publicité exploite fréquemment.

SITUATION DOMICILIAIRE

La situation domiciliaire actuelle, en Suède, peut sembler absurde au premier coup d'oeil. Comment un pays qu'on dit "avancé" au point de vue technique, et jouissant d'un haut standard de vie ne peut-il offrir à tous ses citoyens des conditions de logement adéquates? Il est absolument nécessaire, avant d'examiner la condition présente, d'étudier la situation passée, qui l'explique.

L'expansion rapide de l'industrie et du commerce urbains et la mécanisation de l'agriculture ont provoqué une *immigration* constante de la population rurale vers les grands centres. L'urbanisation des villes, ralentie par le gel économique des deux périodes de guerre et par la récession économique de 1930, a pris, après la dernière guerre, un rythme accéléré,

créant une demande de main-d'oeuvre même trop grande pour l'immigration interne; c'est à ce moment que la Suède a institué une politique d'immigration extérieure. Mais cette urbanisation a marqué fortement l'habitation suédoise et a donné naissance à une *très grave crise de logement,* d'autant plus grave que durant les périodes de récession économique, l'industrie de la construction domiciliaire avait été ralentie au profit de l'expansion industrielle générale, que le taux de mortalité avait diminué, et que la fréquence des mariages avait augmenté en même temps que le niveau de vie.

Cette crise a été amplifiée d'une part, par le *surpeuplement des logements existants,* dû au fait que la moitié du stock de logements consistait en 1945 en logements de deux pièces, cuisine incluse, et d'autre part, par le standard très inférieur de la majorité. Considérant qu'un logement est surpeuplé lorsqu'il est occupé par plus de deux personnes par pièce habitable, cuisine exclue, plus de 21% des familles et 41% des enfants vivaient alors dans des conditions de surpeuplement et de promiscuité. Cette situation a été un facteur important de la forte diminution de la natalité, qui à son tour, a contribué largement à l'élimination du surpeuplement.

La construction domiciliaire en Suède, à partir des années '30 s'est faite sur une grande échelle, mais a connu des fluctuations. Ainsi, en 1939, elle avait atteint un sommet de 59,000 logements; elle représentait 30.3% des investissements totaux et 7.4% des revenus, au budget national. Puis, durant les premières années de la deuxième guerre, la production a considérablement diminué, à cause de l'isolement du pays et de la difficulté d'obtenir des matériaux. A la fin de la guerre, elle rejoignit le sommet d'avant-guerre mais à ce moment, le gouvernement prit des mesures draconiennes sur le crédit et le gel des loyers, en vue d'éviter toute inflation et de stabiliser cette industrie; il y eut une nouvelle chute. Enfin, depuis 1955, le niveau de production se maintient assez élevé et atteint *actuellement 70,000 logements par année*, soit environ 9.5 logis par 1,000 habitants. Ce rythme n'arrive pourtant pas à combler tous les besoins.

En effet, bien que 35% des logements actuels

Ruelle étroite dans
le vieux secteur de Stockholm.
Ces voies étroites donnent
un aspect médiéval
à cette ancienne partie de la ville.

Le Stadshagsgarden,
foyer le plus moderne pour
les personnes âgées à Stockholm,
fut inauguré en 1956.
Ce foyer peut loger
206 vieillards.

Banlieue moderne près de Stockholm.

L'hôtel de ville.

aient été bâtis entre 1945 et 1961, ce qui indique d'une autre façon l'intensité de la production, la Suède doit encore faire face à une grave *pénurie de logements*. Qu'il suffise de mentionner qu'il faut attendre entre cinq et dix ans à Stockholm pour obtenir un logement ou seulement en changer! Et la capitale n'est pas la seule ville suédoise à être le théâtre d'un tel phénomène, dont nous développerons ici *deux facteurs principaux*.

Le changement de structure du ménage suédois est l'une des causes de l'augmentation disproportionnée de la demande de logements. L'aide de l'Etat encourage les personnes âgées à conserver leur appartement, et favorise la formation des jeunes foyers. De plus, les jeunes et les célibataires ont souvent les possibilités financières d'avoir leur propre logis. Voici la distribution des ménages selon le nombre de membres, comparativement aux Etats-Unis:

	Suède	Etats-Unis
1 personne	21%	9%
2 ou 3 personnes	48%	51%
4 personnes ou plus	31%	40%

L'Etat freine au niveau actuel la production de nouveaux logements. Pourquoi? Sans doute parce que la part qu'occupe l'habitation au budget national est rendue à la limite—en 1961, 20.6% des investissements et 6.6% du revenu. Certains cherchent à amoindrir le *lourd fardeau qu'elle constitue pour l'économie nationale*, par des propositions visant à réduire soit la qualité de la construction, soit la quantité. Ces propositions rencontrent beaucoup d'opposition et sont sévèrement critiquées. Mais le gouvernement est souvent obligé de restreindre ses investissements dans d'autres secteurs pour pouvoir suffire à l'habitation, ce qui porte les partis non-socialistes à prêcher une politique d'habitation libre de contrôle et laissée aux mains de l'entreprise privée.

Et pourquoi pas? Puisque l'Etat ne peut répondre à la demande! Il faut revenir ici sur ce qu'on a dit de la situation économique générale de la Suède. *Les contrôles seraient-ils relâchés* qu'on assisterait à une *transformation intense et éphémère de l'industrie et du marché du travail* en faveur de ce qui se rapporte de près ou de loin à la construction, suivie d'une inévitable période de récession et de chômage. De plus, un accès subit au marché d'un nombre exagéré de logements, sur une courte période, favorisera les premiers profiteurs venus pour laisser ensuite place à un surplus de logements. C'est donc *au nom de la planification économique* que l'Etat échelonne volontairement sur un certain nombre d'années la solution de la crise de logement. Mais l'action de l'Etat sur l'habitation n'a pas été que négative, loin de là. Examinons maintenant son attitude, puis ses mesures concrètes dans ce domaine. ✦✦✦

Bachelier ès arts du collège Saint-Laurent en 1956, M. Serge Carreau obtint son diplôme de l'Ecole d'Architecture de Montréal en mai 1962. L'année précédente, en 1961, il gagna l'une des bourses annuelles offertes par la Société centrale d'hypothèques et de logement aux étudiants en architecture. Boursier de l'Association des Architectes de la province de Québec et de la Société centrale d'hypothèques et de logement, M. Carreau se trouve présentement en Suède où il a entrepris une étude sur l'habitation de ce pays.

FACE OF THE METROPOLIS

Reviewed by Dr. E. G. Faludi

In the current wave of publications concerned with the visual design of urban environment, it has become a cliché to blame the woes of the urban world, the ugliness and the dreariness of some American cities, on the attitude of the residents and on the automobile.

What makes *Face of the Metropolis* particularly important is that it presents a glimmer of hope; shows how these problems can be solved by the actions of the people who live and work in the city and govern it.

"Having made cities that for the most part are ugly, they are capable also of making ones that are pleasurable and beautiful."

Unquestionably, along with Lewis Mumford's series of articles on contemporary building, highway planning and civic design called *The Roaring Traffic's Boom*, this is the first analytical and critical book "of the successes and failures of design for the urban landscape unnoticed by all but professionals".

Martin Meyerson and Associates have taken a watchful and helpful interest in the visible change in the urban scene with a new approach to documenting, interpreting and criticizing building forms.

Their book consists of five distinct parts, each providing interesting and useful information to planners as well as to the layman.

In Part I, the changing cityscape contains: the theory of the development of the American City based on the evolutionary changes caused by urbanization and industrialization. It deals with general principles and basic philosophies.

In Parts II, III and IV, living and working in the central-city, the middle-city and the outer-city constitutes the central theme based on 70 case studies as a response to the problems of everyday life. We learn of the many forms of contemporary developments covering housing for various income groups, government and research centres, schools, office buildings, stores, parks, and playgrounds, church, music and library buildings, highways and garages.

In selecting the case studies by location from three areas that coincide with the parts of the historical growth of the metropolis, the authors reveal sound judgment on the development of urban America. In discussing each case, the successes and limitations are intended to give insights into the functions of each of the three areas. It permits us also to observe the several characteristics and techniques of the individual architects and planners in the determination of the correct role of the buildings in relation to sites, streets, avenues, plazas and other open spaces. Most of the case studies selected are a response to profound changes in the economy of the United States and industrial countries of Europe and South America. The cities are given good representation with the various schools of thought and new philosophies in planning and design thoroughly covered.

Not all of them are recent projects or regarded by the authors as excellent. But as they say:

"In all the cases they offer lessons to be learned, and we try to point them out by interpreting both the strengths and the weaknesses of the designs."

The two Canadian examples represented are both in Toronto. The first, the new City Hall, brought these comments from the authors:

"The placing of the buildings on the site and the design of the plaza itself have been related to the surroundings with partial success.

There is no doubt that the simplicity of the open space contributed to the design of the total scheme, but the great scale of the plaza may inhibit the pedestrian. Traffic requirements for the perimeter streets may make it necessary to reduce its size.

The merit of this scheme lies in its co-ordination of all elements to form a powerful symbol of government for the city and metropolis. But like so many imaginative developments it has run into trouble. It remains to be seen how much the officials of the city and metropolitan areas are willing to spend above the standard costs of office space to provide a symbol for the citizens of Toronto."

In the discussion of the subway the authors state:

"The significance of this subway for urban design

In the eastern portion of the development, tall blocks crown the hill overlooking the countryside for miles around. Rochampton Lane, London.

and development lies in:

–the extremely careful interlocking with the surface transit system and car parks . . .

–the impact on traffic congestion . . .

–the impact on the surrounding land and buildings . . .

–the stimulation of private funds to overcome blight and obsolescence in the middle city . . .

–the financial stability of the enterprise (Unfortunately recent evidence proves just the opposite).

–the growth of large cities means that the high density transit systems may be needed to solve rush hour congestion and discourage the use of automobiles in certain sectors."

It is our impression that these conclusions have been reached with the assumption that the traffic problems of Toronto have been solved with the subway system and it must be stated in all fairness that we are still awaiting a decision as to how much rail and how much road must be provided for to give the authors' optimism its justification.

Authorities, Robert B. Mitchell and Chester Rapkin, have more advanced views on *Urban Traffic*:

"Traffic is but one function of land use.

Transportation is a tool not an end itself.

No major decision about transportation should be made without considering its impact on the city's life, its form and its pattern.

There is a growing recognition of the limitless damage that can be done by a transportation system that is planned too fast, too narrowly and too much according to the fluidly practical laws of the slide rule."

In Part V, the book returns to general issues:

The urban landscape is not the product of grand urban design. It is, instead, the product of decision making and decision makers at all levels of society, business concerns, private and public agencies; by manipulating the ordinary processes of getting things built in a free-for-all market. Although, theoretically they should be influenced by city planners, practically they are not and this attitude often has disastrous effects on the quality of urban environment. The cityscape then, reflects the market, the profit motive, political give and take, and is the visual expression of the compromises and accommodations.

In spite of this, great architects can work with these limitations and can create here and there unrelated beautiful buildings or groups of buildings but this does not contribute to the overall image of the city. Neither does it mean that it is also socially and economically a success.

This thesis is illustrated by the case study of the Unité d'Habitation in Marseilles, designed by Le Corbusier (completed 1952-53). "The building was commissioned and constructed as an experiment in urban living. But although the experiment has now been under way for almost ten years, the results of it have not been analysed. This calls attention to one of the great needs of urban design: the appraisal, after the glamour of novelty has faded, of new forms of living and how they function, how they withstand the attritions of use, and how they answer the needs of the people they house. The Unité is a prime example of a design experiment which is a triumph in aesthetics,

The curve of the bridge sweeps over the road giving access to the Esplanade and its band shell in the Charles River Basin, Boston.

yet far less of a social and economic success."

The *Face of the Metropolis* fundamental question: What can be done to improve the appearance and the aesthetic qualities of our cities?

At present there are no conclusive answers on the subject nor do these authors present one that is convincing. They argue that private enterprise has no incentive to provide the public with beauty unless it is reimbursed. However, they feel the government could offer direct inducement, in terms of tax benefits, compensation for extra land and building cost and in large prizes for buildings of exceptional merit.

The question then remains, how can government bodies judge what buildings are of good design? The authors themselves doubt that many developers will be stimulated by such incentives and by the reliability of government judgment.

Another suggestion put forward in the book centers around public buildings that would have a stimulus on private undertakings. Governments can help improve aesthetic qualities of cities if more money was spent on the beauty of public structures and if its agencies were the chief patrons of the great architects and planners. This is now being done in building embassies abroad.

With reference to the Canadian urban scene it is my opinion that beautiful environment develops generally where there is a genuine demand and respect for it. The government assisted urban renewal program is perhaps the most important device for creating a favorable climate in which the aesthetic qualities of large areas could be improved. By scheduling public investments with organization and imagination to make creative uses of human and natural resources, we could produce more striking developments than by the restrictive and regulatory policies of planning and zoning.

The real problem is the lack of a climate in which government and private energies and financial aids could be channelled into improving our cities. It is at the local level where most of the stimulus is required. It is here that the future of urban design must be secured by leadership and economic assistance.

In John Maynard Keynes' words we may say that the *Face of the Metropolis* is . . . "a study of the present in the light of the past for the purposes of the future". Of course no planner can look at the future without his understanding of contemporary cities. In this respect this book can be of great aid.

With the help of excellent graphic and photographic illustrations it unfolds for us a picture of a new urban pattern which, whether we like it or not, is probably the pattern of the future.

We doubt, however, that the . . . "alliance between good taste and public spirited leadership" alone will advance the cause of the future of urban design.✦

Dr. Faludi is a Graduate Architect and Town Planner from the Universities of Rome and Milan. In the thirties Dr. Faludi practised as an Architect and Town Planner in Milan, Italy and has participated as a consultant in planning and redevelopment of several cities in that country. He designed several exhibition buildings at the International World Fair in Brussells. He also worked in London, England, on housing research and compiled a report for a series of ten articles which were published in the Architect's Journal. Since coming to Canada in 1940 Dr. Faludi has been a guest lecturer at the Universities of Toronto and McGill and a Member of the Advisory Technical Committee as Office Manager directing the preparation of the Master Plan of the Metropolitan area of Toronto. In the past 20 years Dr. Faludi has served as consultant and planner to more than 55 municipalities and to numerous private concerns. During that period he has designed several new communities.

Formerly a fine home deteriorated to the extent that it can trigger a downward trend in the immediate neighbourhood.

Substandard Housing and the Enforcement of a Minimum Standard

by Peter G. Burns

It is universally acknowledged today that substandard housing must be eradicated from our cities for both humanitarian and aesthetic reasons. But from a utilitarian standpoint, the plain truth is the existence of blighted substandard housing costs money. Substandard housing carries low assessments, with resultant minimum tax returns, and doubling and tripling up of families in former single-family homes forces the use of schools and other municipal services in a manner disproportionate to tax returns.

Unsatisfactory environment, arising from the inability or lack of interest to create and enforce a minimum housing standard undermines not only the health and happiness of the inhabitants but reflects on the whole basis of family life, leading to higher than average utilization of welfare agencies. Neglected housing with poor wiring, faulty chimneys and improperly maintained heating equipment create conditions conducive to an abnormal incidence of fires and consequent loss of life and property damage.

This condition is not a modern problem. At the turn of the century Sir John Robertson, Medical Officer of Health of Birmingham, England, summed up the effect of substandard housing:

> "No single condition in the lives of the masses has such a damaging effect or does harm in so many other ways as bad housing."

A committee formed in 1934 under the sponsorship of His Honour Dr. H. A. Bruce, Lieutenant Governor of Ontario enquired into housing conditions in Toronto. The Bruce Report stated:

> "As yet very little has been said of the financial burden which bad housing areas throw upon the city. No accurate accounting can be made of the cost and the misery and suffering of those who spend their lives in these blighted districts, but some slight measure of the heavy expense to the community is seen in the cost of certain civic services. It is not suggested that bad housing is the only reason these services are necessary; but it is beyond all question that bad housing is an important contributing factor in creating con-

ditions which the very expensive public health, public welfare, police and police court services try to improve."

The Bruce Report also set out the minimum requirements for satisfactory housing. These have not changed very much over the years. Such housing was to be:

1. Free from serious dampness and with adequate protection from rain, snow and wind.
2. Adequately lighted, ventilated and heated in winter.
3. Properly drained and furnished with sanitary conveniences, including at least an inside sink with water tap and escape pipe, a bath or basin, and separate toilet accommodation with entrance from within the house.
4. Equipped with accommodation for preparation and cooking of food and for storage of food in a reasonably cool place protected from dust and flies.
5. Capable of being kept free from rats and other vermin.

With the passage of time it has become increasingly difficult to argue that there is no need for a minimum housing standard coupled with diligent enforcement. The Mayor of Providence, Rhode Island, sums up the pressing need for such action faced by the modern community:

"We consider our Housing Code a basic and essential element in the upgrading of our City and its tax base."

What is a substandard house? Usually it is an old house, which may not have been a good one, even when built. Floors have sagged, plaster has fallen off the walls and ceilings, the wiring is inadequate, the plumbing is neglected and the space heaters are overworked. The exterior is neglected, the porches are broken, the grass has gone and the garbage is scattered about the yard. It is dirty, overcrowded and invariably occupied by tenants who seem powerless to improve their way of life. The Health Department has received numerous complaints about rats and the Police and Fire Departments make regular visits to little avail. More often than not the incidence of blight can be measured by the number of rusting, unlicensed automobile wrecks scattered about the yard.

Unfortunately, once a neighborhood is on the way down it gathers momentum. What was owner-occupied becomes absentee ownership as the ownership of slum housing is a highly profitable business. The house becomes overcrowded, its rate of deterioration accelerates with very little or no maintenance being carried out, but no matter how poor the accommodation, there is never a lack of prospective tenants willing to pay an exorbitant rent in relationship to the condition of the premises. But then this is not surprising. What other landlord will rent to a troubled and troublesome family with 6, 8 or 10 children?

As an older section of the city becomes less desirable with the expansion of commerce and industry and increased traffic, families who once took pride in their homes sell out and quite often new purchasers are far less interested in their surroundings. Neighboring owners become concerned as first one house then another deteriorates. Before long there is a completely different atmosphere as these long-time owners start to sell their homes and move out of the neighborhood. The new generation of owners takes in roomers and carries out a minimum of maintenance. As more homes are sold absentee owners purchase property in the district. These absentee owners have no interest in maintaining the buildings, their principal interest is speculation. In the meantime they will rent anything to anyone until the land can be disposed of.

This description is admittedly an oversimplification of the gradual process of decay. In the light of present thinking it should not necessarily follow the historic pattern. The diligent enforcement of a minimum housing standards by-law, preferably on a systematic basis, can tend to discourage this first downward movement. Code enforcement is the perfect tool for applying to a house which has been neglected to the extent that it is out of character with its neighbors and thus has a blighting influence which, if ignored, could spread throughout the neighborhood. Depending on the extent of deterioration, the

owner can be required to either repair the house and bring it up to the minimum standard or, if it is beyond that, to demolish the house or it will be demolished by the municipality. In any case, the blighting influence will be removed and the remaining owners on the street will feel that their investment is being protected.

The enforcement of a minimum standards by-law is just one of the many tools available in the present conception of urban redevelopment. There are many city districts where residential uses have become incompatible with surrounding uses that require extensive treatment for revitalization.

Under the new amendments to the National Housing Act legislation has been passed to enable the orderly process of rebuilding cities. Involving redevelopment, rehabilitation and conservation for use separately or in combination in designated areas, it envisions both public and private investment will be required to improve working and living conditions.

Code enforcement is not something new but originally the emphasis was on sanitation. In England the Elizabethian Poor Law, passed in 1601, contained authority for control of epidemics, the provision of sewers or the abatement of sanitary nuisances. The London Building Act of 1667 dealt with hazards from fire and the collapse of houses. In 1848 The Public Health Act was passed and for the next hundred years almost everything to do with the control of housing conditions came under the Medical Office of Health.

Regulations dealing with living conditions were first passed in the United States in 1880. These controlled overcrowding of rooming houses and prohibited total lot coverage. The New York Tenement House Act of 1901 became the forerunner of similar Acts passed in various parts of the United States.

In Canada the first steps towards maintaining and promoting public health followed an outbreak of cholera around 1833 when the Legislature of Upper Canada passed an Act to establish Boards of Health. After Confederation the Government of Ontario enacted the Public Health Act in 1873.

The Public Health Act, 1882, gave further powers to the local Boards of Health and established a Provincial Board of Health. It is interesting to note that this legislation, passed 82 years ago, required the Provincial Board of Health to: "Advise officers of the Government and local Boards of Health in regard to the public health and as to the means to be adopted to secure the same and as to location, drainage, water supply, disposal of excreta, heating and ventilation of any public institution or building."

Over the years the powers of the Medical Officer of Health have been increased and the Municipal Act for Ontario, which was first enacted in 1849, has given municipalities powers to pass by-laws setting standards for construction and reconstruction, the zoning of land, block coverage, etc. The Fire Marshal's Act and the regulations of the Hydro Electric Power Commission of Ontario may also be used to govern existing housing. However, it was not until May of this year that the Legislature of Ontario passed general enabling legislation for local municipalities to pass by-laws prescribing standards for the maintenance and occupancy of residential property. This legislation is contained in Bill 132, an Act to amend the Planning Act, and while the Act is not entirely flexible it is certainly a major step forward in controlling urban blight.

It is to be hoped that even though the enabling legislation is in the Planning Act, we will not lose sight of the fact that it is the health and environment of the people which is of concern, not just beautifying our cities. Lawrence Veiller, who was the author of the New York Tenement House Act of 1901, once wrote:

> "When one's outlook on life is on some filthy alley, piled high with the cast-off refuse of humanity, noisome with odours, and when, as far as the eye can reach, there is nothing but sordid stretches of drab, unpainted, dilapidated, uninteresting buildings, one vast waste space, it is not strange that one's mental outlook on life should be very much the same. How we can expect either a healthy body or a healthy mind in people who have that kind of environment, day in and day out, is beyond understanding."

Does housing standards enforcement really work? It does in Ottawa where a by-law was first passed in 1952 establishing a minimum standard for existing

This house was below minimum standards and the owner was given the choice of repairing or demolition.

The rebuilt house provides an excellent example of how much can be accomplished by a willing owner when an order is issued.

housing. This followed a special enactment of the Legislature giving the City permission to pass by-laws for fixing a standard of fitness for human habitation to which all dwellings must conform. Toronto and Windsor are the only other municipalities in Ontario to obtain the right to pass similar by-laws.

During the past eleven years 576 dwelling units have been repaired as the result of orders issued under the by-law and a further 1,383 dwelling units have been demolished. Approximately 30% of this activity took place during 1963 following reorganization of the administrative procedures and the engaging of an additional inspector. Ottawa now has three full-time inspectors with assistance being given by the Fire Prevention Bureau, the Building Inspection Branch and the Health Department.

Under the by-law, an owner can be ordered to repair or demolish a dwelling. A placard can be affixed to the dwelling indicating that it has been declared to be substandard and an owner can be ordered to vacate or have the dwelling vacated. Failure to comply with an order results in a summons being issued. During 1963, 18 summonses were issued and four convictions registered in Magistrate's Court, the rest

The removal of the fire and safety hazard could only be accomplished by complete demolition.

of the cases having been withdrawn by the City when the orders were carried out. The City also has the power to repair or demolish a dwelling should the owner fail to do so when ordered and the cost of the work then becomes a lien against the property. The city has only demolished four houses over the past 12 years.

In May, 1964, City Council approved a new by-law which sets out the standards in more definitive terms, sets higher standards and places responsibility for administration and enforcement with a one-man tribunal known as the Housing Standards Officer. The new by-law clearly indicates the powers of enforcement. If an inspection reveals that a dwelling does not conform to minimum standards, the Housing Standards Officer orders that a hearing be held and the owner is notified that he may appear and make any representations he wishes. Following the hearing an order is issued which may:

"Require the owner to repair the dwelling to make it conform to the standards within a period of time not to exceed ninety days;

Prohibit the use of the dwelling;

Direct the placarding of the dwelling;

Require the owner to demolish the dwelling within a period of time not to exceed ninety days."

The Housing Standards Officer may still issue an order even though the owner fails to appear or be represented at the hearing.

Some of the requirements of the new by-law include:

"Overcrowding is occupancy in excess of one person per one hundred square feet of habitable floor space.

Bathroom and toilet room floors to be impervious to water.

Every dwelling to have an inside toilet, kitchen sink, wash basin, bathtub or shower and hot and cold running water.

Dwelling to be kept free of rodents and insects.

Every part of the dwelling to be maintained in a structurally sound condition.

A heating system capable of maintaining a temperature of 68° to be provided."

The Minimum Standards by-law also makes reference to other City by-laws for ease of enforcement. For instance, reference is made to the Garbage by-law which sets out standards for the storage of garbage and ashes, the various powers of the Medical Officer of Health respecting water and sewerage systems, the Pesticides Act (Ontario) and the regulations of the Fire Marshall's Act respecting chimney and heating equipment.

The procedure whereby the Housing Standards Officer will hold a hearing before making an order is not common to the majority of minimum standards by-laws and codes in use in North America. This innovation stems from a recent decision of the Ontario Court of Appeal with respect to a judgement in the Supreme Court of Ontario dismissing an action by the City of Ottawa for a mandatory injunction to enable it to demolish certain premises. The Court of

Sub-standard housing encourages sub-standard living. As long as the rent is paid the landlord is happy.

This toilet served two families until the building was ordered to be demolished.

Appeal, in dismissing the appeal, stated:

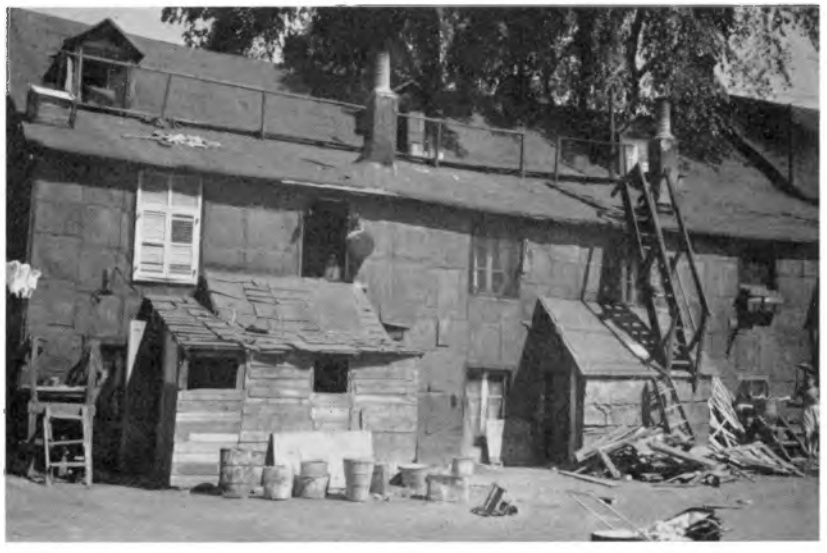
> "Where a Board purports to exercise such extraordinary remedies to bring about the demolition of private property, their action can only be justified if there is the strictest compliance with the powers conferred upon them. In this case we are of the opinion that there was not such compliance. Even if it be assumed that the Board complied with the by-law, the making of an order prior to giving the person affected information as to the non-conformity alleged to exist, and the adjudication upon his rights in the absence of this information and in the absence of hearing any reply he may wish to make, would be sufficient in our opinion to invalidate the order."

An application to the Alberta Supreme Court to quash an order of the City of Calgary requiring an owner to carry out certain work on a building which was considered to be in a dilapidated condition was another recent case bearing on the need for a hearing. The application was quashed on the grounds that it was the duty of the City to act judiciously and that the owner was not given a proper notice and hearing.

Both the Ontario Court of Appeal and the Alberta Supreme Court, in the two cases outlined, referred to a decision of Lord Loreburn in 1911 in which he stated:

> "I need not add that in doing either (ascertaining the law and the facts) they (administrative Boards) must act in good faith and fairly listen to both sides, for that is a duty lying upon every one who decides anything. But I do not think they are bound to treat such a question as though it were a trial. They have no power to administer an oath, and need not examine witnesses. They can obtain information in any way they think best, always giving a fair opportunity to those who are parties in the controversy for correcting or controlling any relevant statement prejudicial to their view."

The continuing enforcement of minimum housing standards by-laws, in contrast to the majority of by-laws of a permissive nature, is only effective when substandard dwellings are sought out by civic employees. In Ottawa the majority of cases are initiated



The backyard of a sub-standard structure with untidy yards and no proper garbage container. A wooden cat walk and steps were added to serve extra rooms created in the attic.

by the Housing Inspectors through reviews of the assessment rolls to find extremely low assessments indicating disrepair and through physical inspection of properties. Many cases are initiated by complaints raised by private citizens and still others arise from referrals from the Fire and Health Departments.

The most effective administration of a minimum housing standards by-law is achieved when the responsibility for enforcement is the primary duty of a Housing Standards Officer and a Housing Staff. The continuing enforcement of these regulations is always diminished when the responsibility is added to the work load of other civic departments lacking inspectors devoted exclusively to the task of seeking out sub-standard conditions. The Ottawa organization with its Housing Standards Officer and inspection team is able to make a particularly strong contribution towards the elimination of blight. The combined efforts of the staff results in an average of 40 dwelling units declared sub-standard each month.

In Ottawa the Housing Standards Officer is also responsible for promoting and coordinating the provision of low rental housing accommodation and for implementation of the City's Urban Redevelopment program. At the present some 200 Federal-Provincial Public Housing Units are being constructed, 111 of them on a portion of a 16-acre redevelopment project involving the relocation of approximately 300 families. Five civic employees oversee this operation while six, including three inspectors, administer the Minimum Housing Standards By-law.

The action undertaken by the City of Ottawa is well in keeping with a Study by the Ontario Department of Municipal Affairs "*A Better Place To Live.*" The Study gives the following counsel:

> "At the outset the Municipal Council must make the decision to have a standards of occupancy program. The content of the by-law may be compiled by the administrative staff, a committee of council or an advisory committee composed of people of good sense, experience and the ability to investigate. Standards cannot remain static but should be improved in terms of contemporary conditions. Neither should standards be the lowest common denominator or less than what is readily acceptable."

There is a great need for regulations governing the maintenance and occupancy of dwellings in our cities. A concerted program of action must be undertaken, not only to improve living and working conditions and to remove unsightly dwellings, but to ensure a firm base for future growth and expansion. If these principles are acceptable to a municipality, then the challenge to adopt and enforce standards of occupancy and maintenance cannot be ignored. ✦✦

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In 1962 he obtained leave from the Corporation to assist the City of Ottawa in its urban redevelopment and housing programme. Mr. Burns is vice-president of the International Conference Chapter of the National Association of Housing and Redevelopment Officials and the only Canadian member of the Association's Middle Atlantic Regional Council.

Le problème actuel de logement au Japon

par Roméo Mondello

La demeure est à la base de toute vie civilisée et, pour qu'il puisse jouir d'une vie saine et sociable, donc vraiment civilisée, chacun a droit à un foyer convenable et confortable. Maintenant qu'il s'est écoulé dix-neuf ans depuis la fin de la dernière guerre, près de 8 millions de maisons ont été construites au Japon.

La situation dans ce domaine s'est donc améliorée quelque peu, mais si on la compare à celle du vêtement et de la nourriture qui ont retrouvé leur niveau d'avant-guerre, le problème du logement reste encore très aigu.

En octobre 1958, on estimait qu'il fallait ériger au moins 2,270,000 maisons pour répondre aux besoins du moment. Déjà, dès 1956 un programme de logement de 5 ans subventionné par l'Etat était mis en œuvre et, jusqu'en mars 1960 près de 1,000,000 de maisons furent construites.

Cependant, due à l'augmentation de la population, aux désastres et à bien d'autres motifs, la brèche entre la demande et l'approvisionnement n'a pu être comblée de façon appréciable, c'est pourquoi en 1962 près de 2 millions de maisons devaient encore être construites à neuf, agrandies ou reconstruites.

Devant tous ces faits, il devint donc nécessaire de prendre des mesures énergiques pour résoudre le problème, ce qui fut fait avec la mise en œuvre d'un nouveau Programme de Construction de Logements de 5 ans commençant avec l'année financière 1961-1962.

LES SUBVENTIONS À L'HABITATION

Il existe présentement trois formes de subventions à l'habitation:

1. *Les projets publics d'Habitation*—où des maisons sont érigées par les autorités préfecturales et municipales à l'aide de subsides du Trésor, variant de 50 à 80 pour cent du coût, pour fins de location aux groupes sociaux de revenus inférieurs.

2. Financement de la construction privée par une *Corporation de Prêts Domiciliaires*, apparentée chez nous à la Société centrale d'hypothèques et de logement. Cette Corporation, grâce à des fonds mis en disponibilité par le Département du Trésor, accorde des prêts à long terme pour la construction d'habitations à ceux qui peuvent fournir le site et environ un tiers du coût de construction. L'intérêt est de 5.5 pour cent par année.

3. *Les projets de la Corporation d'Habitations* (Housing Corporation projects). La Corporation japonaise d'Habitations, grâce à des fonds provenant de placements et de prêts du gouvernement, de même que de l'émission d'obligations de la dite Corporation, construit des logements destinés à être vendus ou loués aux groupes sociaux de revenus moyens.

ÉTABLISSEMENT DE LA CORPORATION JAPONAISE DU LOGEMENT

La réalisation des projets publics d'habitation commença après la guerre, avec l'érection, sous la surveillance des autorités locales, d'abris de secours et de logements temporaires; peu après on passa à de la construction de plus grande envergure, et plus uniforme quant aux normes, de projets domiciliaires en vue d'accommoder sur une base de location les groupes sociaux de revenus inférieurs.

Puis en 1950, le Gouvernement créa la Corporation de Prêts Domiciliaires dans le but d'accorder les crédits supplémentaires nécessaires à tous ceux qui désiraient construire leur propre demeure.

En 1955, soit dix ans après la reddition du Japon aux Alliés, l'économie était revenue au niveau d'avant-guerre dans la plupart des secteurs; mais le logement souffrait toujours d'insuffisance malgré les efforts considérables en vue d'améliorer la situation. C'est donc pour régler ce problème que fut formée en juillet

le vieux TOKYO à l'avant-plan – avant 1945

le nouveau TOKYO à l'arrière-plan – après 1945

1955 la Corporation Japonaise d'Habitation.

Voici les quatre traits dominants de la C.J. d'H.:

1. Le groupement de 3 sources de capitaux: gouvernementaux, publics et privés pour la construction d'habitations.

2. L'érection de logements ouvriers dans des complexes urbains importants et leurs environs, sur une base nationale et sans tenir compte en particulier des limitations créées par les subdivisions administratives, tant au niveau municipal que préfectural.

3. Le développement à grande échelle de secteurs résidentiels.

4. La construction de groupes de maisons d'appartements en matériaux incombustibles.

ACTIVITÉS ET ORGANISATION DE LA C.J. D'H.

a) *Construction d'unités résidentielles*

La Corporation Japonaise d'Habitation a construit à date les unités suivantes, principalement sous forme de maisons d'appartements:

Année financière (avril à mars)

	1955-56	*1956-57*	*1957-58*	*1958-59*	*1959-60*	*1960-61*	*1961-62*
Pour louer	10,000	12,000	24,000	20,000	20,000	20,000	21,000
Pour vendre	10,000	11,000	11,000	10,000	10,000	10,000	11,000
Total	20,000	23,000	35,000	30,000	30,000	30,000	32,000

Toutes ces unités d'habitation sont à l'intérieur de maisons d'appartements, à l'épreuve du feu, et incorporées dans des édifices de plusieurs étages. Les unités à louer ont été construites en groupes concentrés, dans les régions (et leurs environs) d'insuffisance marquée, telles que Tokyo, Osaka, Nagoya, la partie nord de Kyushu. Les sites de ces projets se sont agrandis d'année en année.

Les unités domiciliaires destinées à être vendues sont, pour la plupart, meublées à la demande même de certaines entreprises privées qui sont désireuses d'offrir à leurs employés un logement convenable.

La grandeur moyenne des unités domiciliaires de la C.J. d'H. est d'environ 520 pieds carrés, et l'on y trouve de une à trois pièces pouvant servir à la fois de salles de séjour durant la journée, et de chambres à coucher la nuit, l'une ou l'autre occupation étant dans le style japonais et pourvues de la natte traditionnelle (tapis) appelée "tatami". On économise un espace considérable de cette façon.

b) *Construction de secteurs résidentiels combinés aux facilités commerciales*

En même temps que développer des projets d'habitation suburbaine, il est devenu nécessaire d'effectuer une meilleure utilisation des secteurs urbains déjà congestionnés, en vue d'assurer un mode de vie plus fonctionnel et plus confortable.

Depuis 1956, la Corporation Japonaise d'Habitation a entrepris des projets de cette nature, et construit dans certains districts commerciaux des immeubles contenant à la fois des magasins et bureaux aux étages inférieurs, et des logements aux étages supérieurs, chacune de ces unités pouvant être vendue ou louée. Cette innovation a été des mieux accueillie et il s'est construit 7,735 unités de cette façon entre 1956 et 1960.

c) *Développement de secteurs résidentiels*

Depuis 1955-1956, la Corporation Japonaise d'Habitation a entrepris, comme 1er programme, de développer quelque 2,470 acres de sites ou emplacements domiciliaires à 15 différents endroits à travers le pays. Les terrains ont été partiellement vendus à l'en-

treprise privée et partiellement utilisés par la Corporation pour ses projets d'habitation.

Dans les 2e et 3e programmes, on est à parachever le développement d'environ 5,000 acres d'emplacements résidentiels, et 1,400 acres de sites industriels.

Avec l'exploitation de tous ces secteurs, la Corporation a entrepris de construire et d'aménager toutes les facilités requises pour la création d'une nouvelle ville ou cité, soit des routes ou voies d'accès, des rues, des parcs, tous autres services publics ou communautaires tels que: centres d'achats, écoles, centres de réunion ou de loisirs, hôpitaux, bureaux d'administration, etc.

RÉSUMÉ DES AFFAIRES POUR L'ANNÉE FINANCIÈRE 1961

a) *Construction de logements*

On a visé et réalisé un total de 30,000 unités domiciliaires, dont 20,000 pour louer, et 10,000 pour vendre sur paiements à longs termes, pour chacune des années 1958, 1959 et 1960; 32,000 pour 1961.

L'espace moyen de plancher par unité d'habitation a d'abord été de 525 pieds carrés jusqu'en 1960, puis il a été augmenté de 35 pieds, soit à 560 pieds carrés durant l'année financière 1961.

b) *Construction de facilités commerciales*

En vue de satisfaire à la demande croissante d'emplacements domiciliaires en secteurs urbains, plus commodes au point de vue transport des résidants et, conséquemment, pour développer au maximum un usage plus fonctionnel au sein même des zones urbaines, la Corporation a élargi son champ d'action et entrepris la construction de un million de pieds carrés de facilités commerciales en 1960, 1,350,000 pieds carrés en 1961, combinés à 3,600 unités domiciliaires érigées au-dessus c'est-à-dire aux étages supérieurs de ces facilités commerciales.

Les projets d'habitation communautaire dans l'année financière 1961 ont couvert à peu près la même superficie qu'en 1960, avec en plus 140,000 pieds carrés d'écoles et un autre 140,000 pieds carrés en magasins et bureaux de poste.

Quant aux écoles primaires et aux écoles intermédiaires juniors (junior high schools), qui doivent inévitablement s'intégrer dans tout complexe d'habitation communautaire de quelque envergure, 3 nouvelles écoles ont été construites en 1956, 5 en 1957, 7 en 1958, 6 en 1959 et 8 en 1960; toutes ces écoles dispensent maintenant l'instruction obligatoire aux enfants des résidants dans ces nouveaux projets d'habitation communautaire.

c) *Administration des projets d'Habitations*

Au mois d'octobre 1961, la Corporation Japonaise d'Habitation avait érigé et loué 96,269 unités domiciliaires, et vendu 65,250 unités sur paiements à longs termes.

Dans le but de rationaliser un acte de son administration financière et pour améliorer le bien-être des occupants, la Loi de la Corporation Japonaise d'Habitation a été amendée en avril 1961 de façon à permettre à la Corporation d'investir des capitaux dans des projets de construction de garderies d'enfants et d'entrepôts, d'organiser des services de surveillance, d'entretien, d'aménagement et de plantation de jardins etc., afin de rendre le décor et la vie des occupants encore plus agréables.

d) *Projets de développement de secteurs résidentiels*

La Corporation Japonaise d'Habitation voit à réaliser le programme de construction et de développement des secteurs résidentiels avec facilités commerciales et sites industriels, de même que le programme de la récupération du sol arraché à la mer, principalement dans les régions de Tokyo-Yokohama, Osaka-Kobe, Nagoya, et au nord de Kyushu.

Quant aux projets de développement des sites d'habitation, 1) la première phase du projet, commencée en 1955, couvrait 15 districts et 2,480 acres; 2) la seconde phase du projet, commencée après 1957, a couvert également 2,480 acres, mais sur 13 emplacements; 3) la troisième phase du projet, commencée après l'année financière 1960 s'est appliquée elle aussi au développement de 2,480 acres de territoire.

Dans le développement de sites industriels, on a considéré la nécessité de déménager et relocaliser avec leur population un certain nombre d'industries mal situées à l'intérieur des grandes cités ou agglomérations japonaises. Ce travail de redéveloppement s'est effectué et réparti sur 8 endroits différents au cours de la période 1957-1960, couvrant en tout une superficie

TOKYO 1963:
Les Habitations:
avant et après
la guerre 1939-45.

En bas, développement d'habitations d'après guerre.

de 1,570 acres de sites industriels.

Durant l'année financière 1961, 1,240 acres additionnels de sites industriels à développer ont été commencés et sont terminés aujourd'hui, dont 10 pour cent en emplacements industriels déjà vendus au public. En 1961 on a vendu au public 760 acres en tout, dont 340 acres de sites résidentiels, et 420 de sites industriels.

En ce qui a trait au plan de récupération du sol de la mer, on a fait 250 acres de terre depuis 1957, le tout payé et compensé à date par la vente du terrain en lots à bâtir ou autrement utilisés.

PROJETS D'HABITATION COMMUNAUTAIRE

a) *Plan de situation des habitations*

Le but ultime de ce projet d'habitation communautaire est de créer un milieu de vie confortable qui sera beaucoup influencé par la société environnante. Le plan de ce projet d'habitation communautaire présuppose donc une vue d'ensemble et une prévoyance bien définies, qui tiennent de facteurs tels que, 1) la relation entre l'unité d'habitation et la société envi-

ronnante, dépendant de son but et de sa fonction, 2) la situation et l'agencement des édifices sur le terrains, 3) leur relation à la rue et aux voies de communication, aux parcs, aux édifices communautaires, aux commodités extérieures pour l'approvisionnement et la disposition.

Afin de bien établir la méthode technique ou rationnelle de planification, compte tenu des facteurs essentiels précités, on a d'abord utilisé les meilleures méthodes connues actuellement, puis on s'est servi des meilleurs guides techniques de planification dans chaque spécialité ou domaine, tels que le plan de situation, les routes et voies d'accès, l'aménagement des jardins, l'approvisionnement d'eau, le drainage et l'évacuation des eaux usées, la collecte des déchets, etc.

On s'est également préoccupé de la purification de l'eau potable, de son emmagasinage, ainsi que des facilités de stationnement à la suite de plaintes ou de représentations des résidants. La Corporation a déjà commencé à réaliser de plus gros et plus importants projets d'habitation communautaire du type "Nouvelle-Cité", avec l'étroite collaboration des Services d'aménagement des sites et de construction de la Corporation; on ne tarit pas d'éloges à propos de ces nouveaux projets de grande envergure.

b) *Plan des unités de logement*

1) Pour bien planifier les unités de logement, il est capital d'établir des normes standards mais bien spécifiques dans l'orientation, la forme et la disposition des pièces, leur grandeur minimum, leur équipement en commodités ou facilités nécessaires et essentielles au nouveau et moderne genre de vie d'aujourd'hui.

A cette fin, on a formulé et standardisé les points, guides et facteurs importants à ne pas perdre de vue dans tout concept ou projet d'unités de logement, de maisons en terrasse, de structure ou charpente en construction, de filerie électrique, d'alimentation en eau potable, d'évacuation des eaux usées, etc.

2) Plan standard. Il faut simplifier et uniformiser le devis des matériaux de construction, la préparation des plans, l'administration et la construction elles-mêmes, si l'on veut produire en série un grand nombre à la fois d'unités de logement. Evidemment, cela aide à rationaliser toutes les activités qui sont du domaine de la construction. La Corporation Japonaise d'Habitation joue donc un rôle primordial dans l'évolution et la révolution de l'industrie architecturale du bâtiment dans ce pays.

Devant ces faits 1) qu'il se construit 30,000 unités de logement chaque année, 2) qu'il faut prendre soin des plaintes des occupants, 3) qu'il faut connaître en détail ce que sont la planification en général et l'ameublement standardisé, fruit de longues années d'expérience, la Corporation est en mesure de donner aux unités domiciliaires plus de confort et d'agrément, ajoutant ainsi au bonheur et au bien-être général de leurs occupants.

c) *La création de cités est déjà commencée*

Lorsque le projet Hikarigaoka de la Corporation Japonaise d'Habitation a été réalisé en 1956, il a fait sensation parce que, pour les Japonais, planifier et construire une cité toute nouvelle étaient quelque chose de tout à fait inusité.

Sur un emplacement de 13,650,000 pieds carrés ou 313 acres à l'intérieur d'une région fortement boisée, a surgi soudainement une cité de mille logements. L'étonnement alors fut général, car jusque là aucune entreprise n'avait pu réussir à organiser et réaliser un projet de si grande envergure.

Aujourd'hui, les projets d'habitation de mille logements et plus ne sont pas rares et la tendance actuelle est à l'Urbanisme, c'est-à-dire à la planification et à la construction de "Cités Nouvelles" en communautés purement domiciliaires, et en banlieues ou villes satellites: les premières servent uniquement à l'habitation et n'ont aucun équipement industriel—ce sont des dortoirs—; les secondes sont de vraies villes, dotées d'un équipement à la fois commercial et industriel.

La Corporation Japonaise d'Habitation s'intéresse donc au développement de ces deux genres de villes ou agglomérations. Les projets Kori, Tokowadaira et Yurigaoka sont du premier type, tandis que les projets Tamadaira et Sagamihara sont les noyaux de futures villes-satellites.

d) *Projets de développement des emplacements domiciliaires*

Le but principal de la Corporation Japonaise

d'Habitation, qui se charge d'agglomérer et consolider le terrain pour y développer de l'habitation, doit aussi viser à construire des villes nouvelles, salubres et fonctionnelles, en même temps qu'à maintenir et améliorer la propriété immobilière (terrains et bâtiments), promouvoir un meilleur usage des lots à bâtir, non seulement sur les emplacements acquis par la Corporation, mais également sur les autres propriétés considérées comme faisant partie du ou des secteurs envisagés. Conséquemment, l'échelle de développement à atteindre est d'accommoder des unités communautaires d'environ 10,000 de population chacune.

Le but secondaire est d'intégrer et de préparer chaque emplacement acquis par la Corporation, comme site de construction de la Corporation d'Habitation, pour être vendu à des particuliers qui veulent bâtir leur propre maison, et pour y construire de l'équipement (des édifices) communautaire, c'est-à-dire des facilités publiques en vue d'améliorer le Service, actuellement inadéquat, aux maisons d'habitations et emplacements domiciliaires existants.

A cette fin, la Corporation a besoin d'agglomérer et de consolider plus de terrain. Si elle peut acheter l'emplacement en bloc, c'est l'idéal. Mais il est presque impossible d'acheter des emplacements de plus de 82.5 acres. La Corporation s'efforce donc toujours d'acquérir plus de 30 pour cent du territoire à consolider dans tout projet de développement d'habitations, ce qui lui assure tout de même un contrôle suffisant.

Les emplacements ainsi obtenus sont ordinairement subdivisés en unités plus petites qui sont ensuite échangées et consolidées pour servir à la construction des secteurs résidentiels de la Corporation Japonaise d'Habitation et de leurs facilités communautaires, ou encore pour être vendues individuellement à des particuliers.

e) *Construction de communautés d'Habitation*

La Corporation Japonaise d'Habitation prévoit une implantation convenable des bâtiments d'habitation, sur le site ou emplacement à développer. Pour y arriver elle fait appel à toute l'habileté d'un personnel qualifié d'architectes, d'ingénieurs et de constructeurs afin d'intégrer dans le projet fini tout l'équipement communautaire qu'on retrouve dans une ville bien organisée, l'environnement et les services à l'habitation, les fonctions économiques de l'ensemble, etc., le tout dans un rapport et un décor appropriés:—

a) *Aux communautés de 200 maisons*, un jardin d'enfance, un incinérateur et des cours ou terrains de stationnement.

b) *Aux communautés de 1,000 à 1,500 maisons*, une salle de réunion et de loisirs, un centre administratif, des parcs, un dispensaire, des magasins, une école primaire et autres facilités à mesure qu'on en sent le besoin; ces facilités étant placées au centre de la communauté, de façon que les résidants puissent en jouir sans avoir à parcourir plus de 1,600 pieds, distance maximum de marche à toutes fins pratiques.

c) *Aux communautés de 3,000 maisons*, des écoles primaires et secondaires, une clinique médicale, une salle publique, un centre de récréation, des "supermarket" ou centres d'achats, ainsi qu'un centre administratif approprié.

CONSTRUCTION D'APPARTEMENTS
DANS LA RÉGION DES VILLES

Les villes japonaises s'étalent dans le plus grand désordre. On y trouve trop de maisons genre "boite d'allumettes", trop de ruelles et de sentiers étroits et tortueux, trop de véhicules sur des routes peu larges et surchargées. Les villes du Japon sont définitivement modelées "à l'ancienne".

Il y a, malgré cela et tous en conviennent généralement, une rareté immédiate de terrain; le stock actuel de maisons de logements et d'édifices à bureaux est nettement insuffisant. Mais attention, il serait peut-être plus juste de dire qu'il y a suffisamment de terrain, mais qu'il n'est pas utilisé de la bonne façon.

Qu'est-ce à dire? La réponse qu'il faut donner dans le cas du Japon est qu'il faut entreprendre la reconstruction des villes et de leurs édifices mais en ligne verticale, de façon à utiliser l'espace disponible de manière plus efficace. La rénovation des zones urbaines congestionnées doit prévoir un espace plus considérable pour la circulation, pour les affaires, et pour vivre sa vie plus confortablement.

Dans un chapitre important de ses activités, la Corporation Japonaise d'Habitation a développé bon

nmobre de sites urbains pour maisons d'appartements. Dans les quartiers congestionnés ou encombrés, la Corporation avec la collaboration des propriétaires d'emplacements, construit des édifices solides, à l'épreuve du feu et des tremblements de terre, pour y aménager des boutiques ou magasins et des bureaux sur les planchers inférieurs, en même temps que des logements ou unités d'habitation sur les planchers supérieurs.

On dit de ces édifices qu'ils sont des immeubles à "l'use-galoche", parce que leurs occupants domiciliaires doivent parcourir verticalement de longues distances, mais il reste que ces structures contribuent définitivement à une meilleure utilisation du sol, selon la verticale.

C'est ce qu'on appelle utiliser ou occuper le sol verticalement plutôt qu'horizontalement, et l'on admet au Japon aujourd'hui qu'avec la construction de ces immeubles verticaux, bien implantés et répartis au sol, les villes japonaises vont s'embellir rapidement d'ici quelques années.

FACILITÉS D'HABITATION COMMUNAUTAIRE

La vie de l'être humain se centralise au foyer. Mais le foyer à lui seul ne peut pas contribuer toute la richesse nécessaire à une vie. Il faut de la couleur et du charme aux alentours de la demeure. Dans tout "Projet d'Habitation" bien conçu, on trouve ces deux avantages au centre d'achats, sur le terrain de jeux, et dans la rue. Mais, l'utilité et l'efficacité ne sont pas les seules choses qui comptent dans la vie. Le nouveau mode de vie à développer doit être formé et fondé sur les nouvelles conditions d'environnement qu'on aura bien voulu créer et se donner.

NOUVEAU GENRE DE VIE DANS LA MAISON D'APPARTEMENTS

La vie nouvelle dans les unités de maisons d'appartements constitue un changement radical dans le mode de vie antérieur, et il se rapproche plus que tout autre de la façon occidentale de vivre. Il reste tout de même de fort bonnes choses dans la façon ancienne.

Ceux qui logent dans les unités de la Corporation d'Habitation retiennent ce qu'ils croient qu'il y a de meilleur dans les vieilles habitudes et coutumes, et alors ils adoptent la façon de vivre qu'ils estiment la plus confortable et la plus commode, dans les limites qui leur sont imposées par l'espace et la disposition des pièces de leur appartement. Cette attitude a de grands mérites tant qu'elle ne constitue pas d'accroc au progrès normal.

RÉPARATION DES MAISONS

La Corporation se charge des tâches régulières d'inspection, de réparation et d'entretien, en vue de garder les conditions de l'habitat au plus haut degré d'efficacité; cela est assuré par le bureau administratif de la Corporation. Il importe que tout dommage à l'équipement, toute interruption dans l'approvisionnement d'eau, dans le fonctionnement normal du réseau d'égout et des autres facilités, sources de fâcheux ennuis pour les occupants, soient réparés le plus rapidement possible.

Dans ce but, la Corporation a établi des postes d'appel à chacun desquels un certain nombre d'automobiles de service sont assignées, dans la proportion d'un poste par 5,000 logements. Ces postes d'appel remplissent leur fonction d'entretien de façon très efficace.

Voilà en résumé la situation actuelle du logement au Japon et les efforts qu'a faits ce pays pour remédier au problème du logement depuis la fin de la deuxième guerre mondiale, en 1945. ✦✦✦

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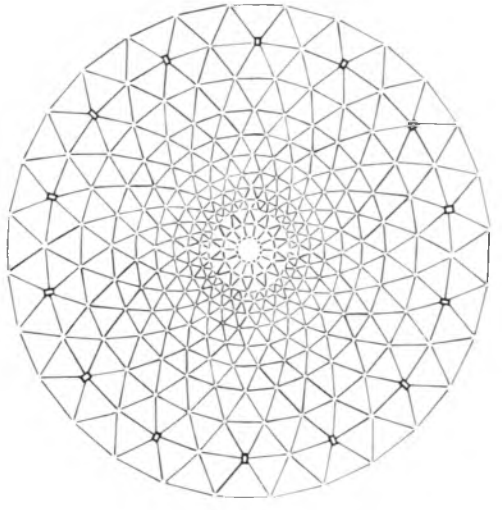


The House of Ideas

by Harry Kohl

It has been customary for the Toronto Metropolitan House Builders' Association to erect a model house at their annual Home Show. Prior to the Home Show of 1962 the house that was to be the focal point of the entire exhibition did not serve its correct purpose. It was not typical of the majority of houses being produced by members of the TMHBA because it was larger, better designed and more expensive. But in the parlance of the entertainment business it was not different enough to be a show stopper. As a matter of fact, the house was a manifestation of the conflict between two groups in the Association—those who wanted the show house to be typical of current housing being produced and those who wanted it to be an indication of what the house of the future might be. Generally speaking, the net result was a beautiful house not basically different from the production house and not all at an exciting explosion of the imagination. To make matters worse, it had a frustrating tendency for those who attended the show and felt they could afford the house, but subsequently found from their local builder that it was more expensive than they anticipated.

Before accepting the commission to design the house for 1962, I insisted that the conflict within the Association be resolved. By the use of an analogy I was able to convince the Executive that we should provide a feature not unlike the display put on by the Automotive Industry at the Canadian National Exhibition. Of the hundreds of cars on display in the Automotive Building that Fall virtually every one of them could be seen on the parking lots outside the building, because the show was taking place a full ten months after the models were unveiled. It was apparent the crowds did not come to see the models they already owned, but rather the experimental designs that the imaginative thinking in the industry could produce. Statistics revealed that the Automotive Building had almost the highest attendance records at the Exhibition.

On this premise my design for 1962 was accepted and became "Vision 62" built of three parts a circle, a crescent shape and a bridging link connecting them over a stream which commenced at a fountain on one side of the house and filled a swimming pool on the other.

The people who came to the 1962 Home Show queued up for hours to examine the house and this, combined with the reaction of the other exhibitors, proved the success of the experiment. Immediately after the 1962 Show the Executive of the TMHBA asked me to think about the 1963 event.

Again a long-drawn-out discussion ensued with a group who would be happy if I conceived a house that wasn't simply a modern geometric form but rather concentrated on the warmth of traditions that were beginning to be apparent in the pseudo-Colonial, pseudo-Elizabethan and pseudo-Georgian characteristics of the houses that were selling well. I felt home buyers were not looking for the pseudo styles, but were rebelling against the sterility of the new primitivism that was characteristic of many of the unimaginative houses that were rationalized as being "good" because they were modern. If the Executive wanted a house that was traditional, I brought out the fact that there existed traditions

This cruciform shaped, four-wing house with a definite Oriental flavor was the "Emperor" built for the 1963 Show.

After the Home Show, "Vision 62" was actually constructed for a homeowner in the Mississagua area.

The 1964 House of Ideas in its setting at the Home Show.

that were applicable to the contemporary house.

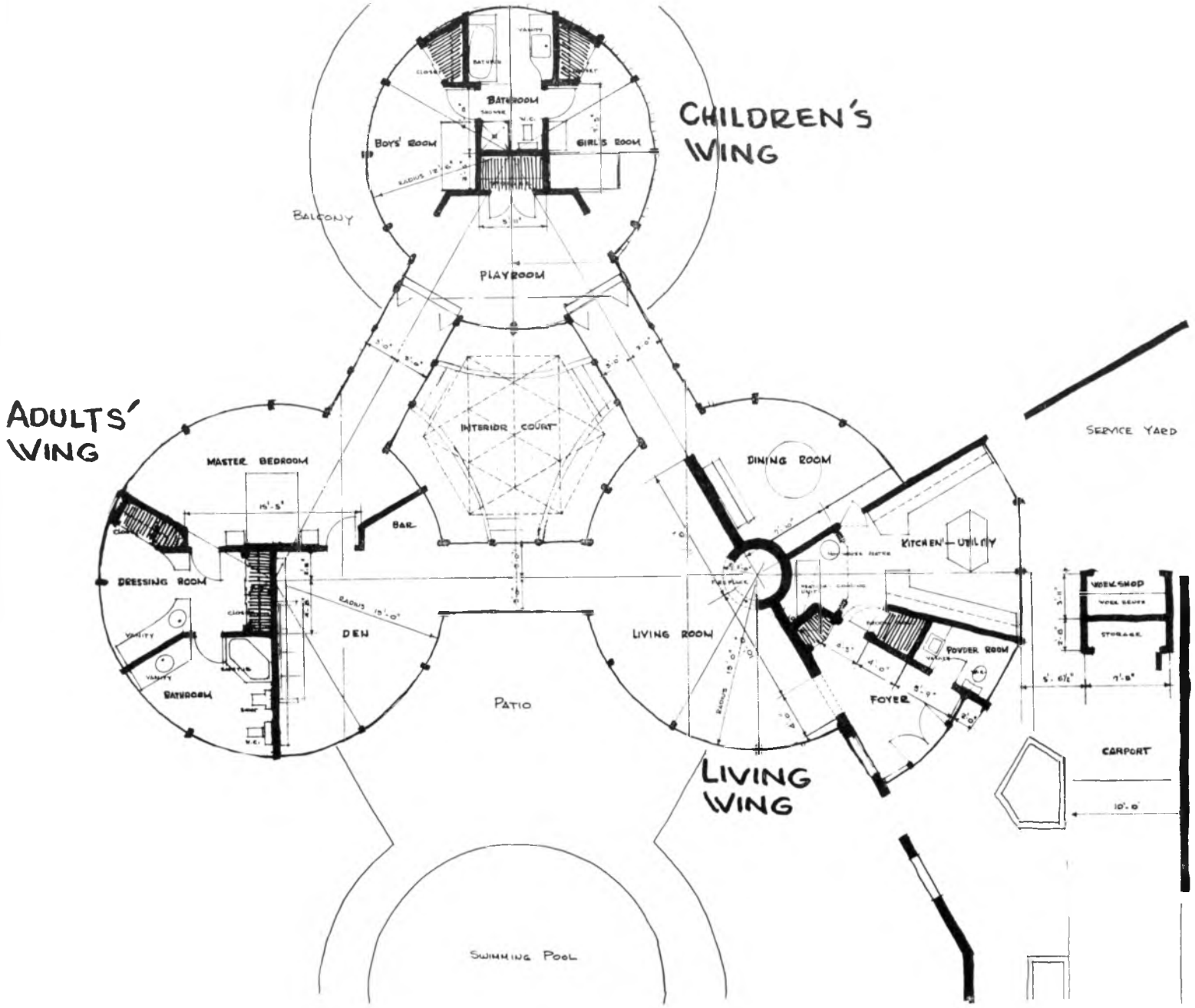
That year I had completed a coast to coast study of the design of houses for the Star Weekly, and selected a house for the front piece of the 30 odd page supplement. My choice was one by Blair McDonald of Vancouver. This particular structure was an enormously attractive style in what has been called the Pacific motif but is more recognizable as of Japanese origin. It was a cruciform shaped, four wing-house with a definite Oriental mood. This became the house for 1963 and was called the Emperor.

The 1964 house has several names: 'the Blue Flame House' after its sponsor Consumer's Gas, 'The House of Ideas' a self-explanatory title, and many other names which should not be included in a family magazine. It was a sincere effort at combining the geometry of 'Vision '62' with a warmth generated by the Pacific style of the 'Emperor' in '63. But rather than continue with the Japanese style in 1964, several trips to Mexico left me with a fine impression of the Spanish and Indian mood of this part of the world and I felt that herein lay another vehicle for generating a feeling of family living. Therefore, the 1964 house attempted to blend the crisp geometry of the domed roofs and their glass links with the warmly stained wood, rough-cast stucco and almost primitive brick arches of my Mexican experiences.

From a functional point of view the '64 house, I submit, is extremely defensible. It is in reality the three dimensional expression of the first diagram of the traffic flow and disposition of functions that probably precedes the design of almost any house. By this I mean that if an architect set out on his first rough design study sheet the three basic areas of the home he would arrive at an area exclusively for adults, for children and a third where both adults and children would have a common family area. He would then think of the outdoor areas for both seasons; those used during the warm months of the year with the patio, swimming pool and garden, and the covered and partially heated atrium protected from the elements and usable during inclement weather.

Indeed, after marking the functions of a building by circles and linking them by connecting lines to show the traffic flow, it became abundantly clear that there was really no reason (except for cost) not to let this functional and feasible diagram become the Plan of the '64 House. There was no problem with the interior decorations because, Shelagh Van Sittart, whose shop, known as "Shelagh's" carries both the Scandinavian furniture of today and imported Spanish furniture of yesterday did the decorating. This enabled the concept of the architecture to be extended to include, as an architect always hopes, the furniture and furnishing.

The house is primarily a show house and all the rooms were designed to be visible from the exterior. This requirement was to permit a greater number of people to see into each of the rooms without going into any of them. Hence the traffic pattern of the



This diagram of the House of Ideas, except for cost, is the architect's answer to problems of traffic circulation and separation of functions.

visitors to the Home Show became a functional requirement of the design of the house. This in turn introduced a new dimension in residential design in that we had a human mobile with the forms and colors of spectators moving around the house almost like the electric lights flashing on and off on the marquee of the University Theatre, calling attention to the fact that both Elizabeth Taylor and Richard Burton were to be seen ten times life size in "Cleopatra".

The necessity for allowing the house to be seen by those who were not in the line-up but who were passing down the aisles from exhibit to exhibit, also contributed to the concept of the design of the house. It could not be low hugging of the ground, or only those up close would see it and it would not draw people from a distance. For this reason the design of the roofs of the three houses had to be unusual. The gleaming white dome of 'Vision '62' so surpassed the split cedar shakes of the 'Emperor' in '63 that I had good reason to return to the dome for the house of '64.

Fortunately there are members of the TMHBA who are in the landscape and swimming pool business and with their assistance we were able to simulate a swimming pool and actually introduce live growing grass around it. Many a chuckle was to be heard among those connected with the show who thought that these hormone loaded grass seeds might be more usefully applied to the hairless dome of the designing architect but in truth the landscaping, with its unlimited budget, contributed to the concept of the house and displayed work by the landscape members of the Home Builders Association.

Many factors were considered in the design of the 'House of Ideas',—the thinking of the members of the TMHBA and the products of the exhibitors were some of the tools used. The prime purpose of the Home Show itself cannot be ignored. It is a publicity exercise to attract 100,000 people or more to the Coliseum to expose them to the concentration of product manufacturers, house builders and developers who make it their annual market-place celebration. Therefore, although the house was built by one member of the TMHBA, Consolidated Building Corporation—the house did display, wherever possible, the working products of the members of the Association and existed as a magnet to draw more and more people to the Coliseum.

My comment, "You would be a fool to buy it", made the headlines in the newspapers. The point was made to completely destroy the possibility of any misunderstanding regarding the practicability, cost or design of the house in respect to the average John Smith home buyer and house builder. The house drew exclamations of amazement, surprise, wonderment and astonishment in the same manner that can be heard at the Automotive Building when the experimental cars are displayed. Therefore, I think the house fulfilled its purpose. Unlike any other house, it was built in six days for ten days, rather than in ten months for 60 years. A Show House is not meant to have the solidity and permanence of a wise real estate investment but rather should provoke people to comment and talk and generate interest both for and against its design. It is escape architecture in asmuch as I was free of the disciplines that befall architects when designing buildings. It was not constructed to be judged forever. Its judgment would be like that of the music heard at a concert, only in the minds of those who were present and it does not remain for reappraisal after the show is over. Escape architecture is a delightful exercise in which I find relief from the dullness or the monotony of the majority of my work.

Mr. Kohl is a lifetime resident of Toronto and was an honour graduate from the University of Toronto. After serving his architectural apprenticeship with Mathers & Haldenby he commenced private practice in 1949 and since then has executed more than 1,000 buildings in all fields including industrial, commercial, institutional and residential construction. He is a Member of the Royal Architectural Institute of Canada and the Ontario Association of Architects. He served on the RAIC Zoning Study Committee and the Multi-Family Committee of the National House Builders Association. He has been a guest lecturer of the University of Toronto and has written book reviews and articles for two of the leading architectural journals.

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 120 screen, copper halftones are by Bomac.

CENTRAL MORTGAGE AND HOUSING CORPORATION

SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT

OTTAWA, CANADA

HABITAT

SEPTEMBER-OCTOBER, 1964
SEPTEMBRE-OCTOBRE, 1964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HABITAT VOLUME VII NUMBER 5

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class matter by the Post Office Department and for payment of postage in cash. Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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FRONT COVER: *Doing it now!*

INSIDE FRONT COVER:
Chapel of Notre-Dame-de-Bon-Secours in old Montreal.
NFB

WINTER HOUSE-BUILDING INCENTIVE PROGRAM

It has been said that it must now be almost impossible to find a Canadian who hasn't heard the message "Why Wait for Spring? —Do it now!"

Not just a slogan, this is an urgent call to all Canadians to take part in establishing a year-round economic climate consistent with orderly business expansion.

Throughout Canada's modern history one of its major economic problems has been that of winter unemployment. Marked swings in economic activity, imposed by problems of weather and temperature, have not only resulted in a loss of production but have also inflicted hardships on those unemployed during the winter months.

A number of special programs have been created by the Federal Government to help alleviate this situation. One of the most dramatic in its effects was the winter house-building incentive program introduced late in 1963. This scheme, under which owners of houses built during the winter months received a bonus of $500, was designed to shift some house-building activity from the summer months to the winter months. The effect of the first program far exceeded expectations. Over 28,000 dwelling units qualified for the bonus. Residential construction activity in the first quarter of 1964 was 36.3 per cent higher than the year before.

As expected, there was some decline in the building of single-family dwellings—towards which the program has been mainly aimed—during the summer months of 1964. As it happened, however, a strong pace of apartment building kept the house-building industry at a high level of activity.

The Federal Government has already announced that the incentive program will be repeated again this winter. And it looks as if the success of last winter will be repeated. Through the imaginative efforts of all the house builders of Canada, we can hopefully anticipate a house-building industry shorn of the marked seasonal peaks and valleys of summer and winter production.

✦ ✦ ✦

The Papineau House

by Eric McLean

It is now three years since I acquired the house of Louis-Joseph Papineau, the famous orator and leader of the rebellion of 1837. The work of restoring the building has gone forward steadily with only a few short interruptions, and by the fall of this year it should look much as it did when Papineau left it to go into exile.

No one undertakes the work of restoration without a great deal of soul searching, whether the original motive is historical interest, a reaction against purely functional design, or simple-minded sentimentality. Faced with the actual problem of changing a building back to its original form, each person must measure his enthusiasm not only against the technical obstacles, but those of a philosophical nature.

If the original motive is historical interest, what does the restorer do when he learns that the house was built over a period of two centuries and that it had been adjusted to several distinct styles of architecture.

What does the opponent to suburban split-levels do when he discovers that the house he has set out to restore is a model of inconvenience?

And what about the sentimentalist who finally learns that the imagined charms of the seventeenth or eighteenth centuries really cannot be re-created with any conviction in our own time.

My own particular motive was not any of these. In fact, I am not at all sure that my motive can be pinned down. Part of it, believe it or not, had to do with a piano. It is a nine foot Chickering Grand, which I acquired third hand while I was still a student at McGill University. It had long since ceased to be a good instrument, and the highest compliment anyone ever paid it was made by Glenn Gould who said that it produced the kind of ailing sound which Wagner probably made when he played for Mathilde Wesendonck. This was hardly reason enough to burden myself with something close to a ton of wood, wire and ivory, but there it was. Each time I moved, I was obliged to take into account this gargantuan piece of furniture, not only because of its enormity, but also because of its sound, which was diminished but still powerful enough to vibrate ear drums in smaller spaces.

It would be foolish to claim that I took the Papineau house because it had the thirty-foot drawing room required by my Chickering, but it was one of a number of persuasive arguments.

A more pertinent reason was that my father knew and loved the old quarter of Montreal, and taught me to recognize some of its attractions. His interest in the area, however, was not that of an historian or a restorationist. He had known it as a living and vital part of the city, and it saddened him to see the area being eroded by that mysterious force called progress. He remembered when Ste Thérèse Street was lined with early eighteenth century houses occupied by lawyer's offices. He knew Bonsecours Market when it was a "real" market where one could buy suckling pigs and catalogne, the first Spring vegetables and wooden clogs, or mittens which had been spun, dyed and knitted by the vendor; and capucine chairs with thong seats for one dollar and fifty cents apiece. He remembered when some of the city's finest restaurants were to be found within five minute's walking distance of Place d'Armes, and when the Place Viger Hotel was among the best in Montreal.

He lived to see Ste Thérèse Street destroyed to make way for the Grecian "New Court House"; the Bonsecours Market all but emptied; the Champs de Mars turned into a parking lot; the Viger Hotel converted into an emergency apartment house; and half the buildings he had known either abandoned or altered beyond recognition.

I was less convinced than my father of the inevitability of this "progress". By definition, the word means an advance, a forward movement from what has gone before. It is true that Montreal is a busier, richer, and more populous city than it was in my father's days, and that the expanding population

The Papineau house as it appeared when Eric McLean acquired it in 1961. The final stage of restoration will be the removal of the two brick stories, which were added towards the end of the last century, and the rebuilding of the pitched roof, scheduled for completion next fall.

requires more room in which to live and work.

But surely true progress implies improvement, not only the sort which meets a new and urgent need, but that which can be measured against aesthetic standards as well. This is not a point to be laboured. Everyone knows from personal experience that some of the finest buildings of the past have been destroyed to make room for inferior structures whose only virtue is convenience.

In other cases the destruction has been indirect, and here it is possible to cite an example, not in Old Montreal, but familiar to all Montrealers. In the 1860's, when Sherbrooke Street was being developed as the city's most elegant suburb, a particularly fine terrace of houses was built between Peel and Mac-Tavish Streets. Because Queen Victoria's oldest son was coming to Montreal to open the new tubular bridge across the St. Lawrence River, the architect had the three plumes of Edward carved on the parapet of his buildings, and called the row the Prince of Wales Terrace.

It was inevitable that the terrace should be adapted to the changing needs of the city, and as the residential areas developed towards the west and east of the mountain park, more and more of the houses in the row were converted into offices and stores. In some cases the conversion was made painlessly and the house managed to retain its external appearance. In other cases doorways were changed and the bays were chopped open to allow for display windows. But the basic quality of the row, the simplicity and satisfying balance of its design, managed to survive.

A few years ago, however, a small property at the end of the Prince of Wales Terrace changed hands

and these elegant buildings suddenly found themselves in an unequal contest with a hotel of grotesque design, three or four times the height of its neighbours.

Although the row is still standing, everyone knows that it is doomed unless some public-spirited authority were to order the removal of the new building to restore the scale of the block, an arbitrary action which our society would not permit.

This pattern has been repeated with a hundred variations throughout the part of Montreal in which I used to live, and it was, to a large extent, because of this that I began to develop an interest in the older quarter of town.

It was not an historical interest. Since there is no such thing as a good general history of Canada—at least, none that would be acceptable to both French and English Canadians—the subject rarely manages to touch the imagination or arouse the enthusiasm of the student. In my case, I left school knowing less about the background of my own country than I knew about Rome or the Hundred Year's War.

But I was familiar with the streets in Montreal's old quarter, and took great pleasure in the weathered stone-work, the harmonious combinations of architecture, the proximity of the river, and the casual pattern of the streets which were obviously planned to go from here to there without reference to a grid.

Even this part of Montreal was undergoing a change, however. The narrow streets complicated traffic problems, and businesses which depended on trucking found the area less suited to their needs. The large financial houses, too, began a gradual movement north on Beaver Hall Hill and west on Dorchester. Many of the fine nineteenth century office buildings below St. James Street went begging for tenants, even with the incentive of lower rents. The three and four-storey houses adjacent to the harbour area, which were originally planned as residences with quality retail stores on the ground floor, had been transformed first into wholesale businesses, then warehousing and light manufacturing, and, in many cases, were now empty. Because property values had been depressed even below the assessment level, the city had come to regard Old Montreal as a problem area in which potentially valuable land was producing no revenue at all.

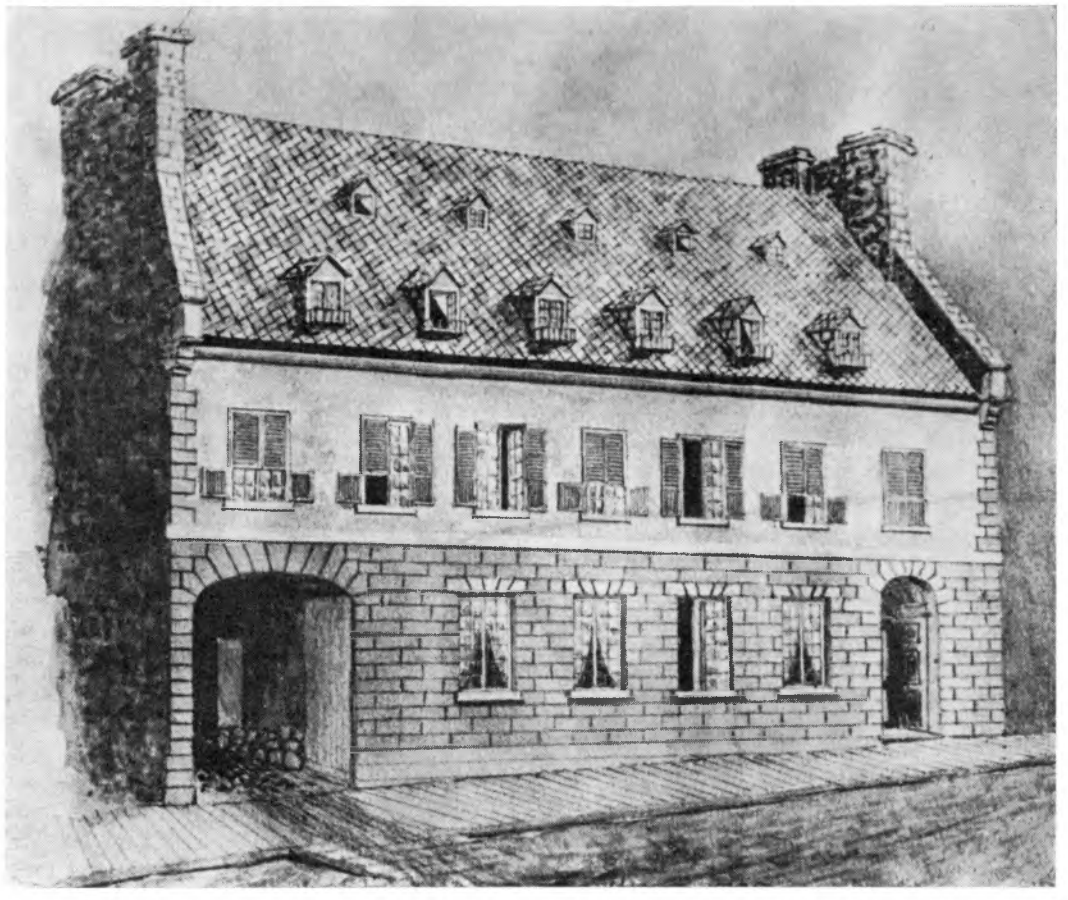
But there was an even more alarming aspect to the problem. Many proprietors were simply pulling down buildings to create parking lots. Economically, the practice was sound because it immediately lowered taxes, and the demand for revenue-producing parking space seemed to be endless. The victims, however, were invariably the older houses—those which could no longer function efficiently in what had been defined as an essentially commercial area.

Because Montreal was systematically destroying the quarter with the most consistent character, and because I felt strongly about the connection between the city and the St. Lawrence River, a connection which only the dock-workers seemed to appreciate, I began to give lectures on Old Montreal to any group that would listen to me. It was in preparation for these talks that I began to learn something of the background of this quarter.

Old Montreal, or le Vieux Montréal, is not a romantic term invented by city guides. It describes a very precise area which was once surrounded by stone fortifications. They were built in the early part of the eighteenth century by the French engineer, Chaussegros de Léry, and they did a great deal to determine the layout of the city and the character of its architecture. The lines they followed were roughly those of Craig Street on the north, Berri Street on the east, the River on the south, and McGill Street on the west, and it is this area which the city has now designated as Old Montreal.

In my lectures I pointed out that, in the last fifty years we have managed to destroy the seventeenth century convent of the Congregation Nuns, the manoir of the Bécancour family which later belonged to James McGill, the Foretier house described at the time of the cession as the most elegant building in New France, and a score of other less important French régime buildings, to say nothing of the fine English and Scottish houses put up at the end of the eighteenth and the beginning of the nineteenth century.

Most of my audiences were ladies, and they clucked their tongues sympathetically as I showed



The Papineau family house as it appeared a hundred years ago. The section over the carriageway on the left was added in 1831 by Louis-Joseph Papineau who also changed the pitch of the roof and built the upper row of dormer windows. From a drawing in the collection of the Chateau de Ramezay.

them slides of the continuing destruction. The trouble was that I could offer no solution to the problem, and certainly these well-meaning women's groups were not prepared to come up with one.

It seemed that the only way to search out the heart of the problem would be to acquire one of the buildings and live in the quarter. It was far from my intention to try to prove that the whole of old Montreal could be reclaimed as a residential area. The fact is that I didn't really know what my intentions were, but I hoped that the move might clarify them for me.

Nothing in my project turned out as I expected, and now, with three years of experience, I am just as astonished as the rest of Montreal at the amount of enthusiasm the movement has aroused.

It is not particularly difficult to find an abandoned or run-down house in a location which appeals to you. But if the city is more than three hundred years old, you may learn that it is almost impossible to find someone to sell it to you. In Montreal, as in Charleston South Carolina, or in Philadelphia, properties in the old section of the city are complicated by servitudes, inherited liens, and a mysterious collection of other legal complications. In many cases, the property has been in the hands of the same family or the same organization for more than two centuries, with the estate divided in twenty or thirty different ways.

This, in fact, may be one of the reasons for the decline of many historic districts. Families divide and scatter, and none of the heirs has a sufficiently large share in the estate for him to take a personal interest in its management. After two or three generations they may not even be sure of it locsation, and the only thing they exact from their trust company or property manager is an income. It often happens that the heirs are reluctant to pour money back into the estate for maintenance or development of buildings they have not even seen, and the estate manager has no choice but to operate a slum, counting on low but multiple rents.

If you are lucky enough to track down the responsible person, the next problem is to persuade him that it is worth the trouble to communicate with all the heirs. Then it is necessary to have them agree

on a price, and sign the deed of sale.

I knew about the Papineau House before I began my search, but I avoided it, not only because it was occupied by a boarding house and a restaurant, but also because it was far too vast for my needs and too expensive a project for my means. But after attempting to buy four different properties without success, I finally allowed Papineau's thirty-foot drawing room to convince me.

Fortunately, the Papineau heirs had sold the building about sixty years ago to the fish market next door, whose only interest in the property was the large walled courtyard at the rear of the house, which they promptly roofed over to serve as a garage for their wagons. I say fortunately, because this meant that the clearance of the title had already been taken care of, and I had only the fish market to deal with.

They were not interested in selling, but I finally persuaded them to take me on as the single tenant of the building with a six year lease and an option to buy if they should change their minds. The purpose of the six year lease was to make me qualify for a Home Improvement Loan financed by Central Mortgage and Housing Corporation. There was a considerable risk involved because my option was really nothing more than a first refusal, which meant that they could have priced me out of the market when it came time to sell, and I would lose any money I had spent on restoring the building.

On the other hand, I knew the manager of the fish market, who personally held a twenty percent interest in the Papineau House, and who was most sympathetic, if a little sceptical, about the project.

One year later, the fish market decided to move for the same reasons that so many of the wholesale food businesses had already left the district. We agreed on a price, the Papineau House became my property, and I began to spend my money with a little more confidence.

I have already said that I had only the sketchiest ideas about the history of old Montreal, but you cannot live in a house like mine without learning something about its background and the events which shaped the community in which it is situated.

Why was the four-foot thick stone wall covered with a wooden facade? After digging through the city archives, the Municipal library, and some Papineau correspondence, I found out that Bonsecours Street had been lowered almost six feet when the nearby citadel and the last of the city wall was removed in the 1820's. As a result, the rather rough masonry of the foundations of the house was exposed, so Papineau dressed up the front with wooden blocks shaped to resemble ashlar (incidentally, the home of George Washington, a man Papineau admired above all others, is covered with a similar facade).

Why had the center pier of the wing settled more than half a foot? I learned from an old employee of the fish market that there was an escape tunnel from the house to the safety of the city's first stockade, and part of the tunnel had collapsed about thirty years ago, causing the wall to sink. (N.B. The rest of the tunnel is still to be explored.)

From these and a hundred other experiences I came to know a good deal about the history of the Papineau House and the old walled city of Montreal.

The main part of the house was probably built in 1752 by a man by the name of Daveluy, and acquired shortly afterwards by Louis—Joseph Papineau's grandfather.

When Louis-Joseph took over the property in 1814, he was already a well-known lawyer, an officer in the British army with a distinguished record in the war of 1812, and the representative of Kent County in the legislature of Lower Canada. A few years later he became Speaker of the House, a position he held until the rebellion, and with his increasing wealth he decided to alter certain features of the old family home in 1830 to suit his needs. The length of the house was extended by building over the open driveway which led to the courtyard. This allowed him to enlarge the salon, and in order to maintain the proportions of the room he raised the ceiling by almost a foot. It may have been at this same time that he joined the house to a second stone building in the courtyard which now forms a wing, and which contains some evidence of having existed long before the main house.

After his return from exile in France, Papineau began building the manoir at Montebello. He leased the Bonsecours Street home, and his winter sojourns in Montreal were spent in rented quarters. It seems that he refused to allow his tenants to alter the family house in any way, since the earliest subdivisions I have found date from 1876, five years after his death. By that time, Old Montreal was much changed in character. Most of the old houses on St. Paul Street had already been converted for wholesale businesses; Notre Dame Street was now the retail center, although it was beginning to feel competition from new commercial areas in the surrounding suburbs; the residential districts had shifted north and west, and the fine homes in the old city were being converted into boarding houses and hotels.

After Papineau left, the house on Bonsecours Street became at various times the Rivard Hotel, the Empire Hotel, and the Bonsecours Hotel. It has served as a telegraph office, a series of increasingly seedy restaurants and boarding houses, a barber shop, an olive packing plant, a bar, two bowling alleys, and a Chinese laundry. Rooms were divided, windows were changed, doors were added, and it is just short of miraculous that so much of the original structure has survived. Most of the floors are those installed by Louis-Joseph Papineau, and there are a dozen of the original doors, five of them dating back to the eighteenth century. A number of the fine casement windows are still intact, along with their regency panelling, and some of Papineau's plaster work still exists in the reception rooms.

The year after the restoration work began on the Papineau House, Mayor Drapeau's government appointed the Jacques Viger Commission which was to advise the municipal authorities on measures for the conservation of Le Vieux Montréal. Jacques Viger, a cousin of Papineau, was Montreal's first mayor, and the founder of Canada's first historical society, but the irony of the situation is that Viger's own house had been pulled down to make a parking lot only five years before the creation of the commission.

One of the first recommendations of the Commission was that a law would be passed against any further parking lots within Old Montreal. Even more important, they recommended that the area be declared an historic district in which all demolition, alteration, or construction would be controlled. This has now been put into effect, and it has done much to encourage others to take over early buildings for restoration since they now feel that such an investment is protected.

In the past six months, more than a dozen properties have been purchased and are slated for renewal, and the city itself has voted $1,400,000.00 for the restoration of the Bonsecours Market building, one of the finest examples of classical revival architecture in the country.

Progress has also been made in a project to replace the glaring mercury arc street lighting with reproductions of nineteenth century lamps, and there is a plan to remove the asphalt from the streets to expose the old paving stones which are still there.

No one has any illusions about creating a museum town like Williamsburg or Upper Canada Village. If it is to work, Le Vieux Montréal must be a living, vital part of the community as a whole. Most of the business concerns still in the district must be encouraged to stay, and abandoned buildings must be converted to new uses as restored residential developments, hotels, stores, etc.

By the year of the World's Fair, Old Montreal may already be one of the show places of the city, and an important visual link with the history of this country. ✦✦✦

Eric McLean was born in Montreal and studied Arts at McGill University, making Music his choice. During World War II he was with the R.A.F. Transport Command, Wireless Operations. He joined the Montreal Standard in 1945, and succeeded H. P. Bell as music critic at the Montreal Star in 1949. He is a member of the Jacques-Viger Commission, the Provincial Arts Council and is special consultant to the City of Montreal on the Conservation of Old Montreal. He is President of the Music Critics Association of America.

Centre City Living

by Bruce Anderson

Contemporary Canadian housing presents two major images—both narrow and esoteric in concept—the suburban development project, sprawling across the perimiters of our great cities and the increasingly present "high-rise" apartment dwellings hovering over the nucleus of Canadian life.

Neither of these images go very far in solving, practically or healthfully, the problem of urban family living.

It is increasingly evident that a solution to this rapidly approaching problem is not only necessary but that it is imminent. Urban land costs are so monumental and population expansion so great that it is urgent to re-direct our thinking towards a new solution to this problem.

In almost every city, older areas or streets may be found which possess many of the desirable aspects of good urban living environment. Tyson Street in Baltimore, Brooklyn Heights in New York, Society Hill in Philadelphia, Georgetown in Washington and Toronto and Montreal all are so endowed.

They have a character of their own and a human warmth often blatantly lacking in some of the more contemporary projects. For example each home in this type of atmosphere has its own small garden, individually cared for by its residents to lend to privacy and relaxation—yet these "residential" areas are located within "horn-honking" distance of the core of the city life.

The problem as it exists is that such accommodation is available only to a limited number of people and, as a result, new dwellings must be built to meet the growing needs of an expanding population.

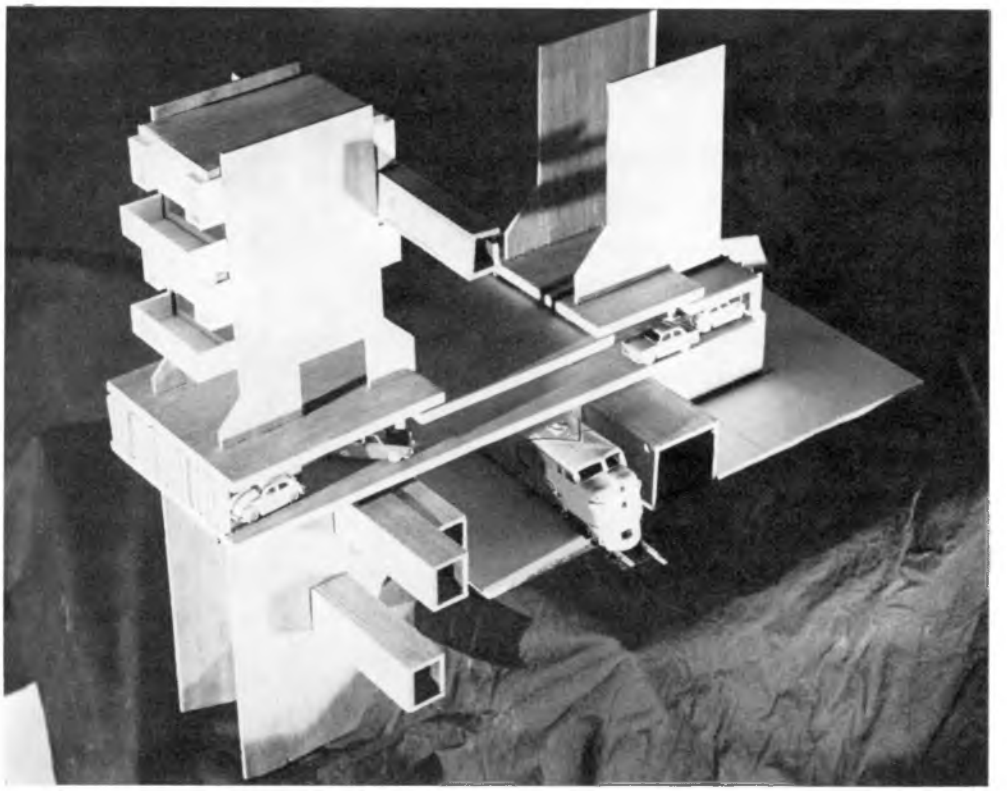
As Lewis Mumford has said, "The task is to provide the maximum number of opportunities for large populations to intermingle and interact, to interchange their human faculties and aptitudes as well as their economic goods and services; to stimulate and intensify by frequent contact and collaboration many common interests that would otherwise languish."

In reaction against the implications of suburban sprawl and the coldly impersonal barrack-like apartment projects, the object of this study has been to create a good living environment within the city. An attempt has been made to fill the void that exists by creating a dense urban environment well integrated with work and play which would cater to a wide range of people; the single, the married and the elderly. The environment was designed to appeal to middle income people, not usually considered in the conventional low and high income projects.

One of the initial objectives following the selection of the project was to rejuvenate a desirable but deteriorating downtown residential area by providing accommodation plus services plus good environment. It was necessary that the good environment include privacy; noise protection; accessibility and ease of movement; healthful living conditions; neighbourhood contacts; human interest; location near employment; recreation; churches, schools, shops, integration of living and commerce; and integrated accommodation (i.e. for families, bachelors and others).

Subsequent study and analysis led to the introduction of a new idea with the following problem restatement; "To investigate the relation of ribbon-type building development to a major circulation route, in this case to an existing surface route."

The introduction of such an idea is not entirely new, but no direct precedents exist. Early evidence can be found of an awareness of the dilemma imposed



Passageways radiate from central core of spine complex.

by the cutting of rapid routes through cities. In 1930, Le Corbusier, in his great planning proposals for Algiers evolved the unprecedented idea of constructing a great vehicular express route leading into the city on top of a series of skyscrapers with accommodation for 70,000 people.

Since that time, countless developments have been built above railways and roads but these are generally located above large terminals in the hearts of cities. Place Ville Marie, Copenhagen Centrum, and New York's Grand Central Station are perhaps the most familiar, while more advanced new proposals such as Hook New Town contain the notion of a linear city.

The idea of a linear development being built over existing grand trunk routes is not restricted to the selected project area or to housing. It can be applied in many locations to such diverse functions as commercial industrial use. Possibilities exist for such developments in conjunction with other forms of circular arteries such as depressed, elevated or various combinations of speedways or circulation routes.

A visual survey conducted in parts of Montreal led to the selection of an area which seemed to possess all those characteristics which make urban living desirable. Lying at the south-eastern tip of Westmount, the selected project area is encircled by three bordering traffic arteries and a playfield. The existing land use is residential but one-time middle class brick or stone town houses set along tree-lined streets rapidly are being converted into rooming houses.

A further cause for depreciation has been the recent decision to zone the area for commercial and industrial use—certainly an unsuitable choice for a hillside site. The effect of these occurrences has tended to be a drop in values of land to where redevelopment is not only feasible but desirable.

The Canadian Pacific Railway line situated on an escarpment running east-west through the area has tended to sever the area both physically and socially. From the escarpment, the view of the city is panoramic, with 19th century neo-baroque church spires and low-lying mountains in the distance. Also climatic conditions in the extreme become more bearable since a sloping site receives more radiation during underheated periods and less during overheated periods. And the site selected, being well oriented to the south, will receive cool breezes in the summer and will benefit by the sun's rays in the cold winter months.

Well endowed with amenities, the location of the project area is highly suitable for urban living. Primary and Secondary schools, both Protestant and Catholic are located within walking distance of the

A decaying but desirable downtown area.

area and the recent relocation of Westmount High School adjacent to the site sets demands on the area for continued residential use. Churches and synagogues are represented near the site.

Many parks surround the area of which the largest, Westmount Park, boasts a 65,000 volume library, conservatorium, play area and indoor recreational facilities.

The area is well endowed with public transportation, normally a problem in most residential districts. All major bus routes leave from the Central Terminus, one block away, and a nearby bus stop is already under construction. Also one block from the site is the Montreal Forum where all major professional sporting events are held. Many people would be delighted to walk home from a hockey game rather than get involved in the inevitable post-game traffic congestion.

One of the greatest advantages of the area is its proximity to one of Montreal's best shopping streets. The short length of the street makes it a very desirable place to shop with all its specialized stores, banks and a theater. At present this shopping location caters to the more well-to-do of Westmount.

In the early stages of the project design, reconnaissance surveys were conducted in order to establish a true character which might be preserved and to determine delapidated buildings which would have to be demolished. Following this programmatic procedure it was noted that many houses in the area possessed notable characteristics architecturally, historically and from the point of view of an established urban environment. Hence, the original design objective was to preserve the character of the area by retaining non-dilapidated houses and to effect the rejuvenation by proper integration of additional dwellings. The survey also established certain physical constraints which eventually influenced the overall form of the complex.

Total demolition was proposed for two large parts of the site due to dilapidation and poor housing standards. The "spine" or major part of the development would require demolition of only twelve houses for its successful integration into the area.

Planning would be carried out in such a way as to separate vehicular and pedestrian movement. As a result, some streets could be made into pedestrian streets with rear access for cars and delivery while others would be modified to serve as parking access roads under the dwellings in those areas.

The structural system was first used in Canada at the beginning of the century for the construction of large grain elevators. Seldom applied to buildings, the principle is most economical for such a large housing project, due to the introduction of a repetitive 20-foot bay. Bearing walls are constructed by continuously pouring concrete into a shallow form which rises vertically at the rate of one inch every ten minutes. Concrete floor slabs, either precast or cast-in-place are inserted as the structure rises. The dwelling units are completed by installing end parts (balconies, window walls, etc.) and related spaces can be achieved by group dwellings in patterns within the established structure. Such variation is a necessary part of good living environment and can be best

"To investigate the relation of ribbon-type building development to a major circulation route, in this case to an existing surface route".

experienced by a look at the "vernacular areas" of our cities. Such a system allows for the possibility of relating individual segments of a linear development which could be done by different architects to create more urban unity. Due to the linear nature of the development, a portal crane can be set up over the tracks to erect the "spine complex", while allowing trains to pass underneath. A horizontal duct running the complete length of the spine development contains all the main services such as heat from a central supply, water and electricity. The duct also serves to ventilate the train and parking areas and drainage is fed directly down to the existing sewage system.

The principle of "served and servant" spaces was employed in the design of the "spine development". Separate spaces for garbage collection, servicing, mechanical services and parking act as "buffer zone" to prevent the transmission of airborne noise from the railway to dwellings. The building structure was separated from the railway roadbed to eliminate any possible vibration, a common practice in the design of city subways.

Above the parking areas, lies the major public street. Here the dwelling units at the south side are raised above the plaza to allow people to walk protected from inclement weather and to permit views of the lower city. The central public area provides space for children's play, old people's leisure and vital street functions.

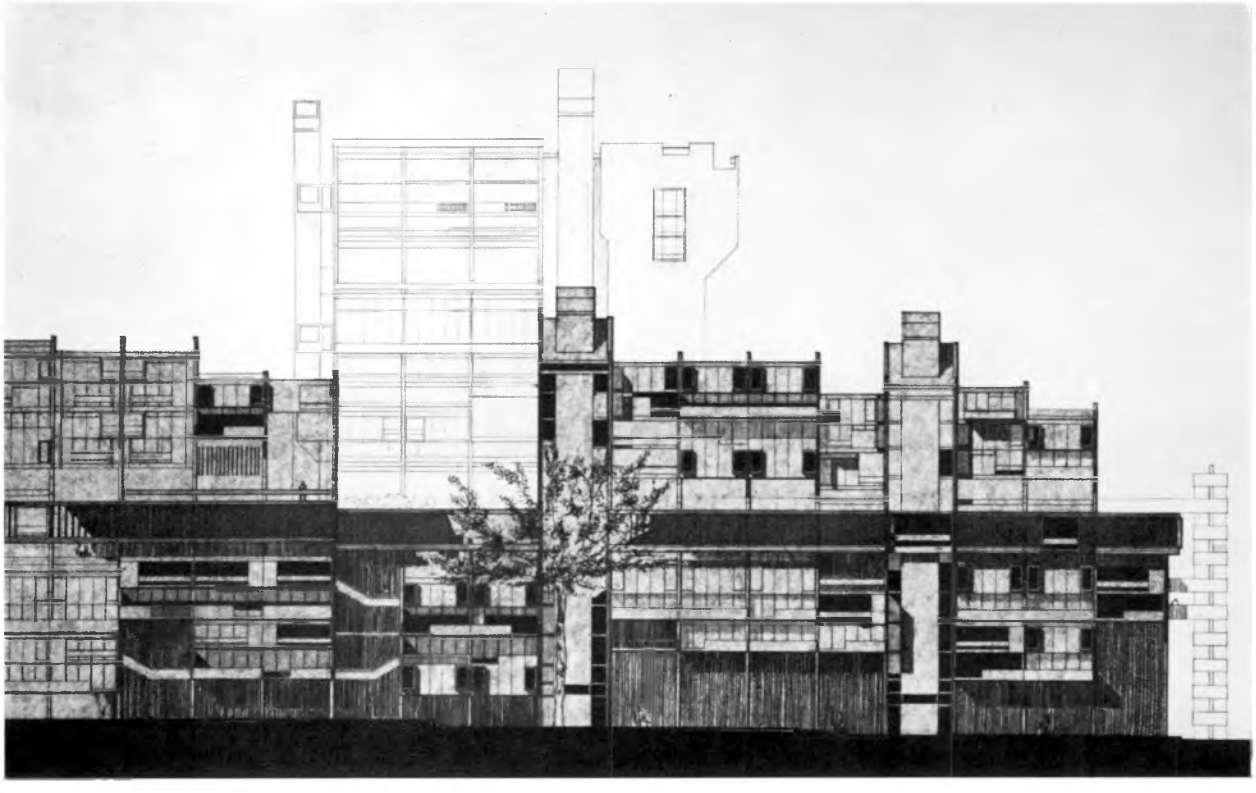
Vertical access towers containing elevators, stairs, laundry and storage facilities, are provided to connect all levels—plaza, parking dwellings and ground.

Horizontal access to units is achieved by continuous "streets in the air" which are open to the sun and become convertible to suit every season. Above the plaza, units are dually oriented, but below they are only on one side due to topographical restrictions. Here, access streets occur at the closed side of the units but occasional open public spaces in the structure give light and air to the streets and serve as gathering places.

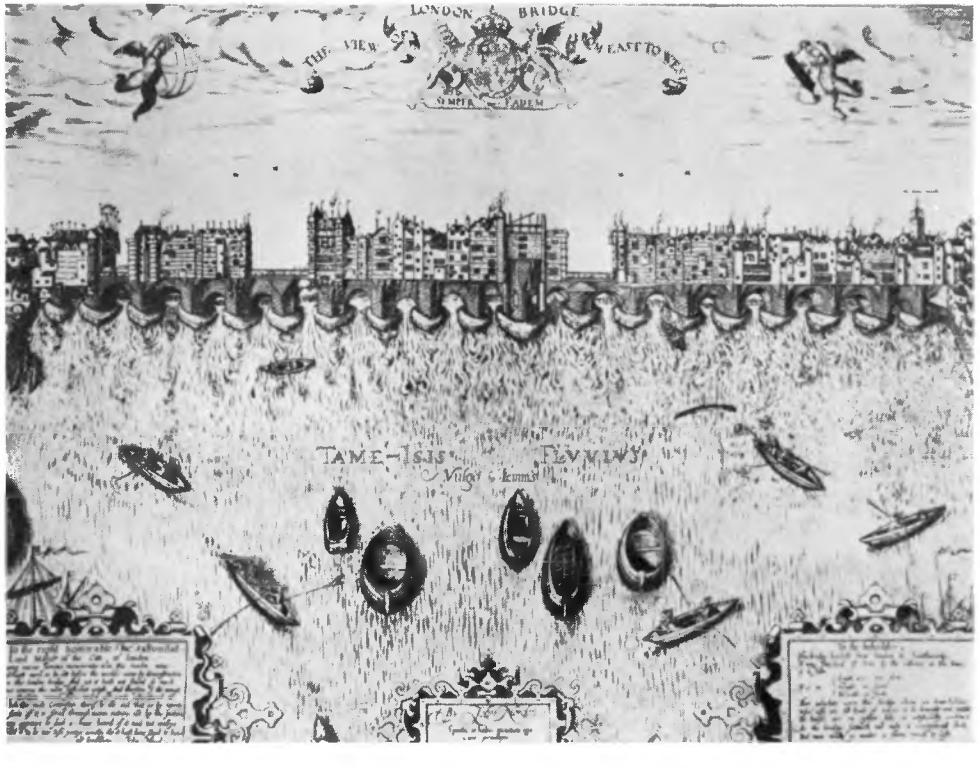
The dwellings are mostly two-storey units, from one to six bedrooms to suit the complete range of family requirements. Each unit is provided with a large private balcony or sun terrace, an outdoor living space which is usually omitted from housing projects. At the east end of the spine the height of the system was increased to show the unlimited possibilities of this form of development. These high maisonnette type units gain clear views of the Mountain to the north or of Montreal's center to the east.

Shops are integrated into the project and communal facilities such as rooms for entertaining, a restaurant, a lookout and sun roofs are provided.

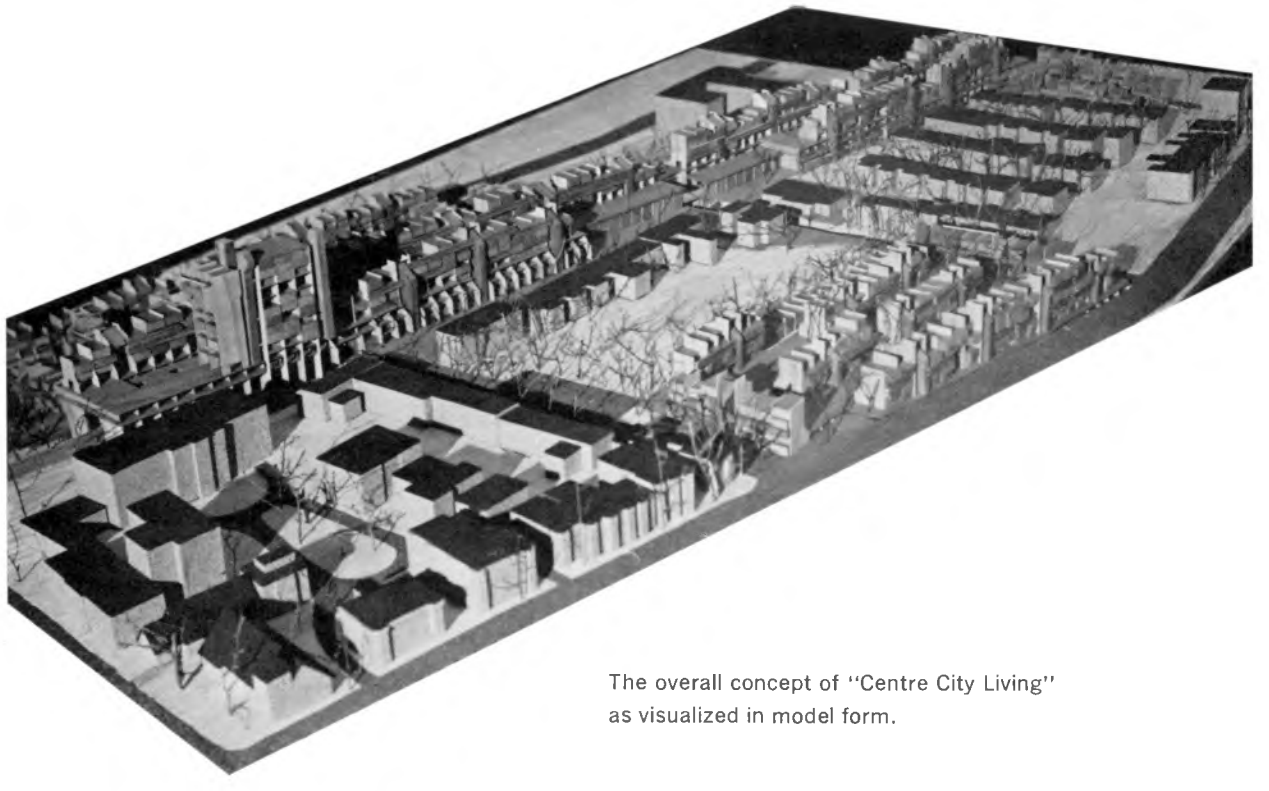
With 75 units per acre in the spine development



Side view reveals entire spectrum of facilities offered by project.



Long before Le Corbusier, London Bridge incorporated living space over a major traffic route —the Thames.



The overall concept of "Centre City Living" as visualized in model form.

and 45 units per acre in adjacent parts, 1000 families could be accommodated in the total project.

Economically the concept is most feasible. The purchase of "air rights" from the Canadian Pacific Railroad would no doubt be less costly than the purchase of existing urban land. Combined with a minimum of demolition where land values are relatively low, such a proposal is highly advantageous.

The city of Westmount, with its own portion of Mount Royal, has been the most esteemed residential area of Montreal. In the past, Westmount rarely permitted high rise commercial or residential development. In recent years, however, high rise apartments and commercial buildings have received permits to build. Aroused citizens protested the large high-rise projects which, apart from their lack of proper accommodation for families, tend to block views from dwellings on the mountain side.

It was in that situation that Mr. McLaurin, a prominent Westmount citizen, brought the "Centre City Living" project to the attention of the mayor, the city council and the "Westmount Examiner".

The City Council has held meetings and as a result of this along with the citizen protests, work has stopped on the largest of the highrise complexes while permits for an equally large project have not been issued.

Such a project as "Centre City Living" requires the co-operation of architects, planners, politicians and interested citizens to promote its concept. When this is achieved, not only will the project fit into the existing grain of the city but a new and revolutionary pattern for urban development will be realized. ✦✦✦

Bruce Anderson was born in Montreal and is a graduate in Architecture of McGill University. He was awarded First Prize in the 1964 National Pilkington Competition in Architecture and in 1963 was awarded a CMHC Travelling Scholarship. Other awards include: Lieutenant Governor's Gold Medal for Highest Standing in the Final Year of Architecture; Hugh McLennan Memorial Travelling Scholarship; Royal Architectural Institute of Canada Medal; Turnbull Elevator Prize.

Le présent article est le deuxième d'une série de trois qui sont publiés dans cette revue.

Maisons collectives en rangées à trois étages, Kortedala, Gothenburg.
Arch. Sven Brolid et Jan Wallender.

L'habitation en Suède

par Serge Carreau

Grandes lignes de l'attitude gouvernementale

Les premières mesures sociales prises en 1930 par le gouvernement cherchaient principalement à améliorer le sort des familles qui vivaient dans de mauvaises conditions, et à résoudre le problème du chômage provoqué par la dépression économique. Cherchant à augmenter le taux de natalité, on institua des mesures pour améliorer les standards des logements, et permettre aux familles de revenu moyen d'acquérir de meilleures et de plus grandes maisons.

Au début de la guerre de 1939, la production domiciliaire fut paralysée. Pour faire face à cette crise et maintenir les loyers des nouvelles constructions au prix d'avant-guerre en dépit de l'augmentation du coût de production, l'aide financière de l'Etat fut augmentée considérablement, sous forme de prêts supplémentaires sans intérêt.

Enfin, ce n'est qu'après la seconde guerre mondiale que le gouvernement suèdois adopta une politique d'habitation à long terme. Les buts principaux de cette politique étaient: l'élimination du surpeuplement des logements; la condamnation du logement de deux pièces comme logement familial; l'augmentation des standards, aux points de vue espace et fonctionnement, de façon à ce que chaque logement puisse répondre aux conditions de la vie moderne enfin, l'élimination des différences de standard existant notamment entre logement urbain et logement rural. Une base de crédit solide permettait l'application d'une planification à long terme de ce secteur, pour le protéger des fluctuations qui avaient souvent dans le passé perturbé le marché du logement, créant tour à tour une pénurie ou un surplus de logements, une provision inadéquate, du surpeuplement, une élévation aiguë des loyers ou parfois une baisse de la valeur des propriétés et du chômage dans ce secteur.

On comprit de plus qu'un plan d'urbanisme, parce qu'il est adapté aux conditions sociales et économiques de chaque société et qu'il prévoit sa croissance, est le seul moyen d'ordonner son expansion et de lui donner sa forme propre. Un tel plan apparut donc comme essentiel pour mener à bien la nouvelle politique sociale d'habitation. C'est pourquoi en 1947, il fut décrété obligatoire pour tout nouveau développement. Mais pour que ces plans particuliers soient pleinement efficaces, ils doivent être guidés par un

plan d'ensemble à long terme pour toute la communauté. C'est ainsi que l'Acte d'Urbanisme de 1947 stipulait que chaque ville devait avoir son plan directeur, capable de fournir les prévisions relatives à son expansion future. On pourrait éviter ainsi le développement anarchique de trop de villes modernes.

Mesures concrètes de la politique gouvernementale

Bien que cette politique du gouvernement envers l'habitation semble anti-démocratique, avec tous ses contrôles, la façon dont elle est appliquée nous prouve le contraire. La décentralisation des tâches et responsabilités permet à toute petite communauté dans n'importe quelle région, d'être aussi bien servie que les grandes villes centrales. Evidemment, cette décentralisation a le "défaut de sa qualité" en ce sens qu'elle constitue une longue chaîne bureaucratique qui allonge considérablement les procédures.

La municipalité est responsable de l'établissement des différents plans d'urbanisme et de la construction domiciliaire. Elle reçoit le pouvoir de décréter non seulement où et comment, mais aussi quand, tel développement résidentiel doit être construit. A cette fin, une politique d'expropriation a été adoptée pour permettre aux autorités de s'approprier les terrains les plus propices aux développements résidentiels. C'est ainsi que la ville de Stockholm possède maintenant la majorité des terrains libres situés dans ses limites et a pu ordonner son expansion d'une façon très précise et pour plusieurs années à venir. La ville a de plus le pouvoir de contrôler toute la construction, et de percevoir des taxes pour financer les nouveaux développements. Elle peut aussi posséder ses propres entreprises pour la construction et l'administration des nouveaux projets. Cette décentralisation permet donc à chaque municipalité de pourvoir directement à ses propres besoins, sans être contrainte à des dispositions lointaines et plus ou moins adaptées.

Il n'en reste pas moins que l'Etat joue le rôle de coordonnateur et supplée souvent la municipalité lorsque celle-ci n'est pas en mesure de prendre en main ses responsabilités. Il possède en effet les pouvoirs financiers et reste maître des conditions de prêt.

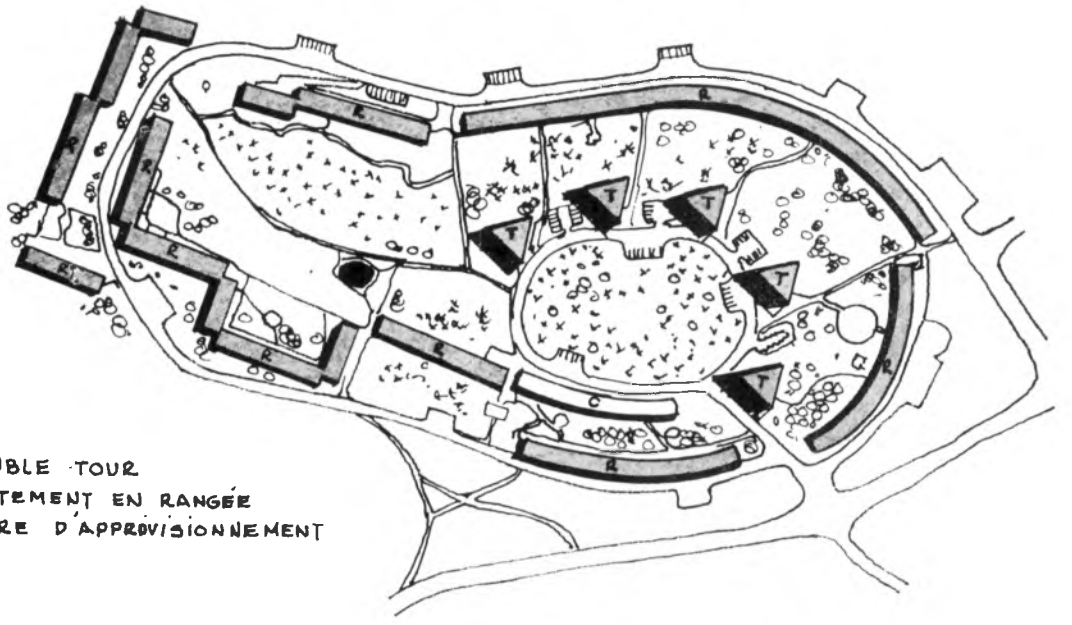
Toute construction domiciliaire qui se soumet aux conditions exigées peut être financée par l'Etat; 95% l'est en fait. Les prêts offerts prennent diverses formes: 85 à 100% de la troisième hypothèque, dans le cas de maisons de rapport, avec un taux d'intérêt de 4% et un amortissement réparti sur 30 ans; garantie d'intérêt sur la première hypothèque et/ou la seconde; prêts supplémentaires pour couvrir la dévaluation entre le coût total de construction et la partie de ce coût correspondant au montant des loyers; prêts pour la résidence privée, jusqu'à 40%, avec intérêt de 4%. Vu la grande extension de cette politique de prêt, la construction domiciliaire se trouve relativement étatisée et est tenue à l'écart de toute spéculation.

Sur un autre plan, l'Etat accorde une allocation spéciale de logement pour permettre aux familles nombreuses et à revenu moyen d'accéder à des logements plus adéquats (proportionnés à leurs besoins) et aux personnes âgées de continuer à vivre dans un milieu normal, formé de gens de tous âges, tant que les défaillances de leur santé ne les obligent pas à vivre dans des centres spéciaux.

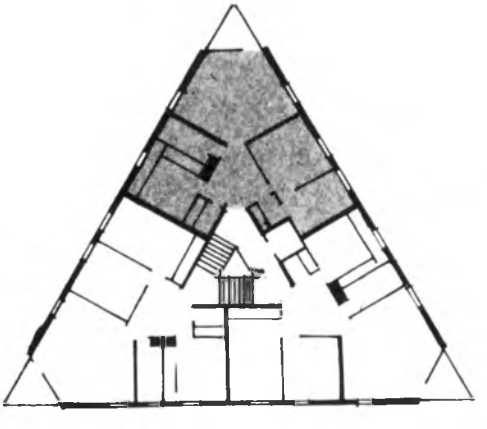
Le gouvernement plafonne le coût des loyers et des logements en imposant des conditions précises de location et de vente. Evidemment, dans la situation actuelle, la spéculation aurait beau jeu.

Une autre façon d'aider la cause de l'habitation est la contribution gouvernementale à la rénovation des vieux logements, à la ville comme à la campagne, toujours par des prêts intéressants. Cette mesure concourt à élever le standard des logements vieillissants tout en retardant leur démolition intégrale.

Chaque année, l'Etat favorise des recherches, tant sur le plan de l'urbanisme que ceux de l'architecture et de la technique. Les conclusions ne sont pas reléguées" aux fonds de tiroirs", mais servent à renouveler et à améliorer les normes et les standards. Ces recherches se font à partir des résultats d'enquêtes sociologiques détaillées, donnant une grande importance à l'opinion des ménages et tenant compte des différents facteurs propres aux centres résidentiels à haute densité. Conséquemment, l'architecture résidentielle suédoise n'est pas le fruit des élucubrations intellectuelles de quelques architectes, mais est le produit de la population. Les nouvelles expériences tentées à la suite de recherches du genre ont permis à l'habitation d'évoluer



Plan d'ensemble montrant la relation entre les différentes formes d'habitation, la nature, les voies de circulation et le centre d'approvisionnement.



Immeuble-tour à plan triangulaire.

et de s'adapter constamment aux conditions de la vie moderne.

Conséquences de la politique gouvernementale

Sur le plan social, la politique suédoise de l'habitation a aidé considérablement l'élimination du surpeuplement des logements, quoique le changement de structure des ménages y ait indirectement contribué. Retenons deux aspects de cette évolution. Premièrement, le système des "allocations de logement" favorisait d'abord les familles nombreuses qui vivaient dans de mauvaises conditions, et devait les aider à rencontrer les dépenses amenées par un logis nouveau et plus spacieux. Il reste qu'en dépit de l'amélioration de cette situation, c'est encore—toute proportion gardée—chez les familles nombreuses qu'on trouve le plus de promiscuité. Deuxièmement la construction de logements plus spacieux fut stimulée par l'augmentation des espaces minima. Ainsi, alors qu'en 1947, la surface moyenne des logements nouvellement érigés était de 600 pi. car., en 1961, elle était devenue 725 pi. car., quoique la structure des ménages maintenait une demande continuelle pour les petites unités. Le tableau suivant donne aussi une idée de l'augmentation des surfaces des appartements depuis la dernière guerre.

Distribution du stock total de logements selon le nombre de pièces

	1945	*1961*
4 pièces et plus, et cuisine	15%	19%
3 pièces et cuisine	16%	23%
2 pièces et cuisine	31%	32%
1 pièce et cuisine	26%	17%
autres	12%	9%

Cette amélioration a largement contribué à diminuer le taux de surpeuplement qui, de 21% en 1945, a passé à 8% en 1962.

Sur le plan social encore, il est intéressant de noter comment la Suède, par sa politique d'habitation, a réussi à éliminer pratiquement toute ségrégation de classe. Oui, les gens riches peuvent avoir leur villa et leur grand jardin, mais les classes moins privilégiées —je n'emploie pas le mot pauvre, car il n'a pas le même sens ici—ne sont pas confinées à habiter des quartiers sordides qui posent les limites de leur communauté monolithique. Elles sont intégrées au reste de la communauté; les familles plus privilégiées aident indirectement, par les taxes, les familles qui le sont moins, à habiter les mêmes quartiers, le même genre d'appartement, parfois le même immeuble. La famille d'ouvrier côtoie la famille du professionnel, le jeune ménage et le couple âgé partagent la même entrée. Les zones de taudis sont inexistantes en Suède; ce n'est pas qu'il n'y ait pas de vieilles maisons, mais celles-ci, entretenues et souvent rénovées, ne sont pas destinées automatiquement, à cause de leurs standards inférieurs, à la classe la moins privilégiée. D'ailleurs, les représentants de cette dernière, par une saine émulation, tiennent autant à la propreté et à la bonne tenue des lieux qu'ils habitent.

Il est intéressant de signaler aussi, à la fin de ce chapitre où nous avons signalé si souvent le contrôle de l'Etat, la forme particulièrement démocratique des compagnies qui se chargent de la réalisation des nouveaux projets domiciliaires. Précisons d'abord que cette réalisation se divise en trois étapes: la mise au point des plans d'architecture et d'urbanisme, la construction proprement dite et l'administration. La construction elle-même est effectuée en grande majorité par l'entreprise privée. Mais près de 60% des nouveaux projets sont la responsibilité de coopératives et de compagnies a buts non-lucratifs qui se chargent elles-mêmes de la planification et de l'administration. Le point le plus intéressant de ces compagnies, c'est qu'elles font tout ce qui est possible pour améliorer les conditions domiciliaires et pour produire des logements qui peuvent être occupés indifféremment par toutes les classes—d'autant plus qu'elles sont souvent constituées par des syndicats ouvriers ou des associations de locataires. ✦✦✦

Bachelier ès arts du collège Saint-Laurent en 1956, M. Serge Carreau obtint son diplôme de l'Ecole d'Architecture de Montréal en mai 1962. L'année précédente, en 1961, il gagna l'une des bourses annuelles offertes par la Société centrale d'hypothèques et de logement aux étudiants en architecture. Boursier de l'Association des Architectes de la province de Québec et de la Société centrale d'hypothèques et de logement, M. Carreau se trouve présentement en Suède où il a entrepris une étude sur l'habitation de ce pays.

NOTMAN

In the age of Victorian decorum —a divertissement, 1870.

Photographer Extraordinary

by Eric W. Minton, Information Division, Central Mortgage and Housing Corporation

The upwardly surging skyline of Canada's most cosmopolitan city, Montreal, is dramatic evidence of the growth and change in our cities since World War II. And there is little doubt that the future will be met by this same burgeoning expansion.

But all our preoccupation is not with the future. In one of the original buildings on the campus of McGill University in the heart of downtown Montreal there is great concern about preserving a fascinating segment of Canadiana—the Notman collection of photographs. More than 500,000 photographic plates and pictures that recapture Canadian life of nearly a century ago in brilliant detail are stored in these archives.

In 1856 a young Scot working in Ogilvy's dry-goods store in Montreal decided to go into business for himself as a commercial photographer. This was a bold if not daring venture at a time when equipment and techniques were in the first stages of development.

But William Notman persisted. Specializing in Canadian scenery, portraits and elaborate composite photographs, he became recognized as the leading photographer in Canada. In 1862 he won his first International Gold Medal in London, an honour which was to precede his eventual appointment as photographer to the Queen. Similar distinctions came in Paris, in 1867 and 1878; in Philadelphia in 1876; and Australia in 1877.

A commercial photographer, William Notman worked not only in the world of Society but also in the world of the theatre, as the piquant study here reveals. Before he died, Notman had photographed nearly every Canadian of note and many of the great international figures of the era.

Out interest in William Notman, however, is in the photographs that he took of various Canadian cities as they appear in the latter half of the last century. Because he lived in Montreal the collection

ALL PHOTOGRAPHS BY COURTESY NOTMAN COLLECTION, MCCORD MUSEUM, MCGILL UNIVERSITY, MONTREAL.

abounds, of course, in views of the growing city as seen from the top of Mount Royal. There are also fascinating views of the waterfront in the days when sail had not yet been eclipsed by steam.

When the Canadian Pacific Railway was finally completed to Vancouver in 1885, Notman was appointed official photographer. As the railway proceeded west so did Notman with his camera, not only once but on a number of occasions.

In these photographs a frontier era lives again. Calgary appears as a small village; Winnipeg in the early years of this century boasts the new electric street cars; Toronto in the late eighteen-eighties shows the busy corner of Yonge Street and King Street, complete with gas lights and horse-drawn cars.

Notman visited other Canadian centers from coast to coast for the railway. Halifax is seen from Citadel Hill, and half a world away the ships in Victoria's harbour lie quietly at anchor.

The best of these Notman photographs of Canadian cities have been incorporated by Central Mortgage and Housing Corporation into a new exhibit—"The City". This exhibit illustrates the contemporary scene in the major urban areas of the country, contrasted with the city scene as it appeared to William Notman and his camera long ago.

Although William Notman himself died in 1891, the business was carried on by his son Charles Notman, and it remained in the family until 1934 when it was sold to Associated Screen News.

However, the material that forms the basis of the famous collection was kept intact. Exactly one hundred years after Notman first went into the photographic business in Montreal the photographic collection was purchased from Associated Screen News and turned over to the McCord Museum of McGill University. Today a staff at the Museum is researching and cataloguing this vast collection.

William Notman was an imaginative and resourceful pioneer in photography. The legacy that he has left grows in interest and value to all Canadians conscious of the fast flow of history and conscious of the ever-changing scene, not only in our society but in our cities as well. ✦✦✦

Victoria B.C. as seen from the Parliament Buildings, c. 1897

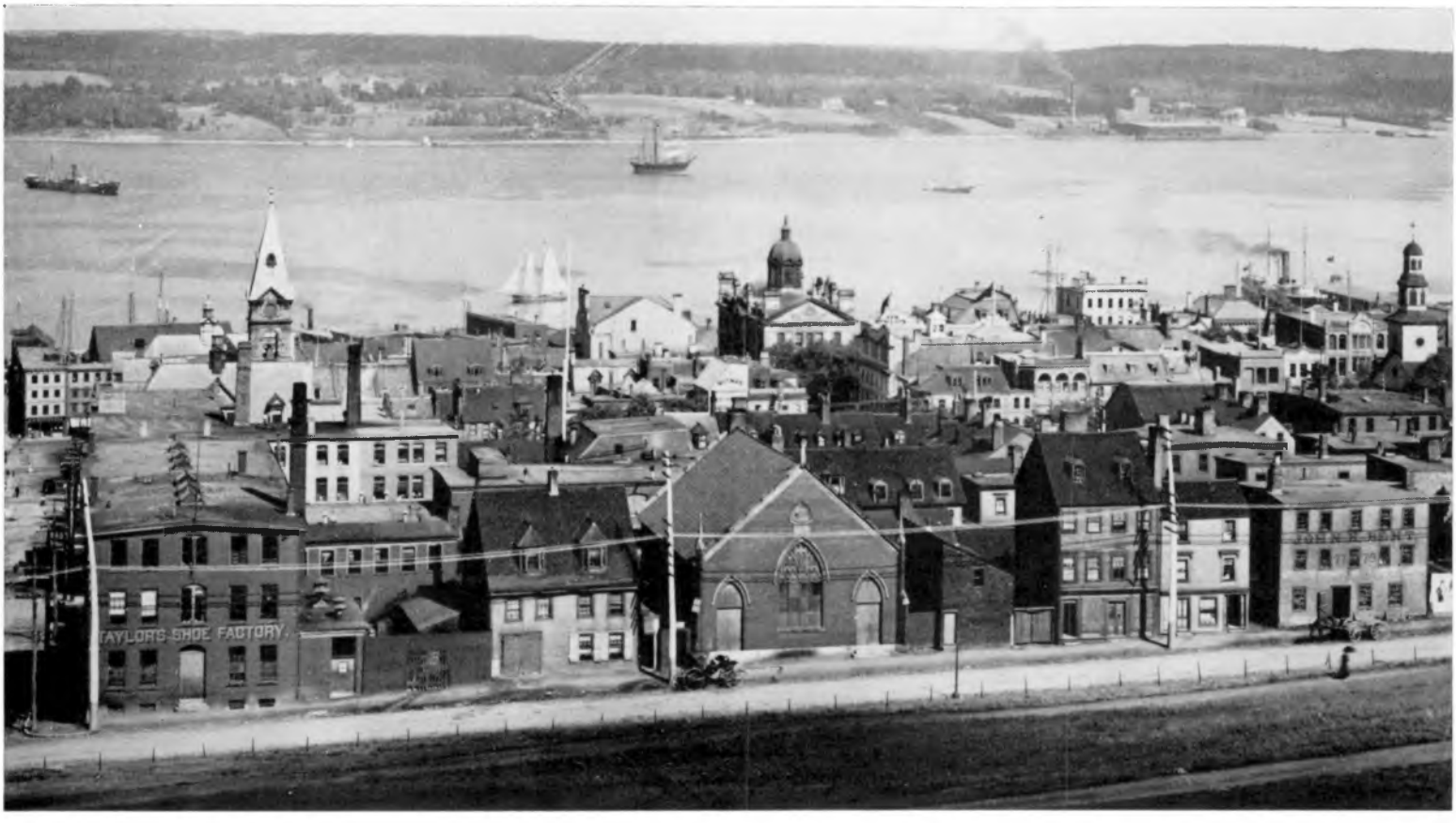
West End Calgary, c. 1887.

Main Street, Winnipeg, c. 1903.

The busy corner of King Street and Yonge Street, Toronto
as seen by Notman in the early nineties

The Parliament Buildings, with the Post Office on the left
in downtown Ottawa, c. 1900.

Montreal harbour from the Custom House about 1885.



Halifax from Citadel Hill, c. 1900.

CIVIC DESIGN

by Albert Potvin

The aim of good civic design is to achieve a more harmonious pattern of living in the man-made environment known as the city. However, like all such aspirations, it is more easily accepted than applied.

How simple an art city designing would be if it were only an exercise in planning, if we could limit our discussions to the respective merits of rectilinear versus radial street lay-out and what constitutes the ideal arrangement and the proper relationship between the various structures.

In searching for perfection in civic design we are responding to our inner artistic concepts according to which beauty, expressed as elegance of form, is the supreme attainment. The architect turned town-planner tends to conjugate civic design with architecture and to apply the principles of balance and symmetry, striving for an orderly arrangement of the parts with respect to the whole. But he must remember that he is working in a vastly expanded medium where architectural standards become, in a sense, secondary considerations that can no longer have priority over some of the more urgent problems facing the urban collectivity.

Civic design, I think, in its modern definition, becomes a relative term, for it has been divested in part of its original meaning. The notion of balance and coherence as a guiding principle is not easily applicable to the modern city. Town planning, in its pristine acceptation means to impose limitations, to set down the boundaries of the urban structure. But we can not think of an urban plan as a frozen pattern, or as a rhythmic entity. Cities of known parentage, like those of more obscure origin, infused with a life of their own become pulsating, growing organisms with the power of expansion and self-regeneration. The city becomes identified with its inhabitants and shares in their achievements, their aspirations and their heroic deeds.

To build great cities has been a compelling obsession with men and nations through all the ages. Urged by this vision and given the authority to commandeer the resources of a country and to impress its manpower into service, princes and potentates have carried out remarkable executions of this kind. Many cities of the past, as indeed some of our modern western cities, have been conceived from the tracings of a master plan.

The ancients knew how to plan their cities. In the middle ages fortress cities were also laid out according to a predetermined pattern. Washington and Paris may, with reservations, be called planned cities, though they have outgrown their mould. Today we can still plan our Brazilias. There is also at the moment an ambitious proposal being circulated for a new capital city from which a United Europe would be administered.

Projects and feats of this kind stir the imagination of the world. But any future metropolis, we can expect, will grow from the leaven of commerce and industry as have most of our important centres of activity. We can foresee the day when the awakening continent of Africa will have its own Sao Paolos and Amsterdams. Their growth characteristics should also reflect the shaping influence of trade and commerce.

Our cities have developed to meet the social and economic realities of the times according to necessities rather than concepts. Over the course of years they have undergone many transformations. Every suc-

ceeding generation has had a hand in remoulding them, each according to the standards of its day. These cumulative attentions have brought a progressive enrichment to the urban environment. Far from despoiling the city, successive alterations combined with an irregular pattern of growth have given it an intensely human touch. The diversity of styles and unrelated shapes pointing to influence of widely separated periods, confer to the city a warmth and intimacy that the planned community in its formal setting could never convey.

We find little need for basic planning until a town has swollen to a point where it becomes too big to mould into any ideal form. When a city decides it needs a subway to speed up traffic and relieve congestion at the street level it is because it has already reached proportions where it can no longer dispense with the underground express.

The growth of the city does not follow any straight-line progression. Instead, it mirrors our own waiverings, our uncertainties. Twenty years ago we were moving in droves to the suburbs. This appeared to be the logical answer to the increased demand for housing of a rapidly growing urban population. Now we are trying to contain the suburban bulges by preaching a return to the heart of the city. As a result we have a spawning of high-rise apartment buildings, like so many mutations in the urban patch. There is a growing uneasiness at the thought that we might be creating over-concentrations which will eventually precipitate another exodus.

Twenty years ago motels also began springing up on the outskirts of the city as a reaction against an antiquated hotel system. Now the motor hotel, fitted with all the latest trappings and luxuries is returning to the downtown area.

Thus the urban explosion is a reciprocating phenomenon, marked by dispersal and reintegration.

In the past we have allowed for an unlimited expansion at the perimeter without considering the demands that this type of growth would place on the heart of the city. Unserviced land was both easily accessible and its use practically unlimited. As our mobility improved and as the city became increasingly congested it was natural that we should look to the green fields beyond. The urban climate itself spoke of strong rural attachments since a growing percentage of urban dwellers had moved in from the country. What we did not fully realize then was to what extent the suburban developments would remain dependant upon the city.

Their parasitical link with the city put an increasing strain on both parent and satellite communities. Gradually, the tentacular growth of the urban zone absorbed many of the peripheral settlements. The adjustment in relations between the core of the city and adjacent developments should go on until the fusion is complete and the parts are welded into an amorphous super-city.

From the metropolis we shall soon be passing to the megapolis. Our larger cities will lose their present identification. We will no longer be able to think of the city as a homogeneous community, but rather as the sum of its constituent urbanized developments.

Already we are trying to re-define the city, for cities as we know them today are comparatively new institutions. We are trying to reconstitute a picture of the city in its expanded form. But before we have succeeded in doing this we will again have to stretch our concept of the city. By that time we may have to call it by another name. Even now London, Paris, Tokyo and New York are as a state within a state.

Any kind of planning will then necessarily have to be carried out on a regional rather than a municipal basis. Presently clusters of self-administered suburban communities are realizing the advantage of working together as a single municipal body in certain spheres of common interest.

The urban planner's role is not to dehybridize the city but to bring out its character, not to stop its heart beat but to regulate its pulse. One of our major preoccupations at the moment should be to find some way of accommodating the growing flow of motor traffic which, if it continues at the rate of the past years, will soon work itself to a standstill unless we find an effective catharsis.

The advent of the motor vehicle and our obsessive and growing dedication to its use bring us in in-

New York waterfront with heliport in the foreground.

creasing conflict with an urban environment which we have inherited from a more leisurely, less exigent and less hurried past. Trying to adapt a pattern of high mobility to surroundings designed for a much slower pace of activity has become a task so formidable that we tend to ignore it, hoping it will somehow solve itself.

How can this urgent problem be overcome? By multiplying the number of access ways, clover-leafs and overpasses? By providing acres of underground parking space? Someone has suggested that we prescribe the use of the private automobile in downtown areas. But would we easily give up the prerogative of owning a car and using it as we see fit, a right which we have come to consider somehow as the fifth freedom? I doubt whether a single remedy will cure the ill. Yet it is a question that will have to be faced squarely without delay.

The designing of our cities will, I think, remain an experimental science. Like all other relative disciplines it must take into account the infinite vagaries of the human factor. The changing moods of the people and their willingness to acquire new standards of excellence and to submit to new patterns of living can complicate as well as assist the task of drawing up any kind of long-range civic plan. We must proceed by trial and error while adapting to changing conditions.

We must also avoid speculative planning. The generation that will follow will want the responsibility —and the pleasure—of looking after its own planning. The horse-and-buggy generation never could have conceived all the demands of a motorized world. As we are moving into the age of the computer our guesses as to future requirements could be off by a wide margin. Each city, each locality must also work out its own pattern, a pattern that will have already been determined to a very large degree by geographical characteristics and by past development.

Because we cannot easily formulate with any finality ultimate answers to many of the problems of urban design, theoretical solutions must be tested empirically. At the cost of how many errors, we cannot tell in advance.

One of the continuing tasks facing the long established city is the removal of the decaying urban tissue where a sizeable area is affected, where the buildings are worn beyond the hope of rehabilitation.

The soaring verticals of Montreal's Canadian Imperial Bank of Commerce Building and below, Vancouver's B.C. Electric Building.

Urban renewal of this type has been carried out in many of our larger cities mainly affecting the core of the down-town area, and similar excissions are being planned by other cities. We might call it sectional or fractional rejuvenation.

The rebuilding of our cities which is a never-ending process will continue to be very largely the work of private initiative, of the citizens themselves. The leading part will continue to be taken by those men of bold vision and adventurous spirit in whose hands a sufficient amount of wealth has been concentrated to undertake the execution of new projects.

In all our large cities, as indeed in some of the lesser ones, we can admire today magnificient examples of new construction in conspicuous contrast with the old. The contemporary period, I think, will be remembered as one that has ushered in a new phase in building design, breaking with the past to experiment with truly new forms of architectural expression. The revolutionary creations of our architects and engineers establish new focal points in the city, eclipsing the older land marks.

These achievements make our mediocrity more acceptable. They provide some justification for the hundreds of little stores with false fronts, for the sagging roofs, for the soot-covered facades, the chipped cornices and amputated gargoyles. They also set new marks for others to imitate and surpass.

Planners who have a hand in designing our cities should take into account our ability to adapt to modifications in the urban environment and even to accept the unacceptable. New styles, shocking and disturbing as they may appear to some at first, bring about a revision of standards. The majestic twin towers designed by Yamasaki and which may soon dominate New York's sky-line, as staggering as they are in size, can readily be integrated into the existing perspective of that colossal city. In the stone forest of Manhattan these giant Sequoias emerging above the tree line do not seem out of place. On the other hand, to erect a hundred-storey building in the heart of Ottawa would create consternation. Our sense of proportion would be too violently jarred.

I wonder if in medieval times when men, moved by faith, raised temples whose spires rose hundreds of feet above the highest roof tops, if there were indignant protests voiced by the good people below?

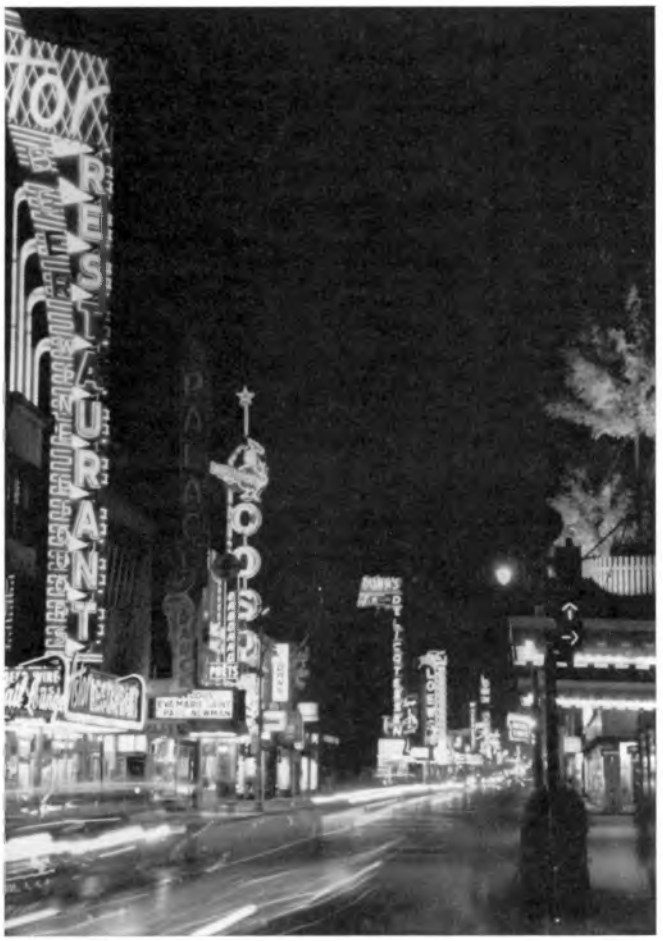
Now as we look back, we cannot picture the medieval city without its imposing cathedral and its castles. In the same manner we instinctively associate the old walled city of Quebec with the massive silhouette of Chateau Frontenac. Its very existence makes it right and fitting, as something intrinsically belonging to the scene.

Thus our standards are fixed by realities, by faits-accomplis. The advanced styling of modern buildings will set new standards for tomorrow. No sooner have they taken shape than the former prototypes of current architecture appear aged and shrivelled. In the shadow of their conquerors they cease to be the symbols they once were. As ex-champions of the urban tableau they already belong to the past.

Can we ever hope of achieving an ideal in civic design? Can we codify its laws and set down formal principles to follow? At least, can we establish ten valid commandments governing good civic design?

I do not think we can discuss the question of civic design without coming eventually to grips with the specific problems facing each situation, dealing not in theories but with existing problems facing the cities in which we live. In this perspective the city appears in all its detail and complexity and presents us with a perpetual challenge.

Yet to give some sense of coherence and purpose to our efforts it is only natural that we should also occasionally theorize and that we should attempt to ascribe a higher aim and give some sort of generic meaning to our dissociated actions. Town planning as a science, while still essentially experimental in its outlook, is nevertheless producing its own theoreticians. The Freuds, the Jungs and Adlers of urban planning have provided us in recent years with substantial literature on the subject. But while they are groping for the cornerstone of cardinal tenets their voices are far from synchronized. Their prophecies and proselytizing range from what I might call a Malthusian outlook to a reactionary attitude, reproachful of our overzealous attempts to "sanitize" the city.



Night-time patterns in downtown Montreal

Gutkind, in the "Twilight of Cities" viewing the urban scene from an orbital height suggests, in his own masterly fashion, that unless we can reach the minds of those who inhabit the city and radically revise their concepts as partakers in the civic drama, making them more acutely aware of their role in the collectivity, all our efforts to improve the nature of the human habitat will fail. Yet he himself fails to tell us how a transformation of this kind can be achieved.

As we are attempting to raise the ghettos and to erase all evidence of poverty from the urban scene Jane Jacobs, in her convincingly logical style makes an eloquent plea for the preservation of the city's declining and substandard districts. If the sight of these "depressing" areas preys on the conscience and offends the sense of propriety of social workers and of the more well-to-do, to those who have known no other home the destruction of their familiar surroundings is just one more humiliation, one more autocratic decision on the part of the "higher-ups". While we think they should feel a sense of relief at being dug out of their dens, they themselves see this disturbance, this uprooting, as just another proof of their helplessness and as a public exposure of their inferiority.

Abstract postulates and sentimental reactions? I do not think so. From every sincere opinion we can distill an element of truth. Ideas such as these will eventually become the subject of debate in municipal council chambers and in the private forum of our own minds. Through the intricate mechanism of thought transference the written word will find its way to influence our concepts and our deeds.

Of course, we should not lose sight of any attainable ideals in civic design. As dreamers of dreams we can even go on visualizing our Utopias and Shangri La's. But the requirements of the moment will often have to take precedence over the ideal. The city will never be a Garden of Eden. It will remain an area of turbulence and of contrasts. The city of tomorrow will not be less hectic but if anything more animated than it is today. Dream or reality each brings its own fulfilment, for there is also beauty in disorder.

The very essence of the city is its diversity, its hustle and bustle, its noisy activity by day and its frolic by night.

The great city of today is too vast and varied to be orchestrated or to be contained in a unified concept. When we think of the city we think of its irregular profile, its smoking chimneys and its church steeples, its majestic edifices and its corner filling stations, the snack bar sandwiched between the bank and the post office, the block-long emporium and the stately tower, its civic buildings, warehouses and shops. We think of the city as a medley of discordant sounds, clashing colors and blended odors against a background of unceasing motion, blinking traffic lights, hurried crowds and impatient drivers.

Cities will continue to be the fascinating places that we know them to be as long as they reveal themselves as a composite of the familiar and the unexpected, as long as there are changing window displays, daily newspapers, police sirens and addresses that the taxi driver can't find. The city is identified by its back alleys, its skid row and its dead end streets

as well as by its river heights and its tree lined boulevards. Would we have it otherwise?

Still, the city should not be all jungle; it should also have its oases, its islands of repose. Trees did not grow in the ancient city. There was no place on the cobblestones of those tightly organized communities for the elm and the weeping willow. But as the cities outgrew their enclosures and expanded into the open it became possible to introduce into the city a bit of the loveliness of the countryside beyond.

Wherever possible, I think we should provide for breathing spaces. This need not necessarily be expressed as a percentage of the occupied area, because then we are tying civic design to a rigid formula. But like a flower box in an apartment window, patches of greenery in the city provide a momentary inspiration. They become more refreshing to the eye as we approach the vortex of the naked city.

The city as the focal point of human activities offers an area of study as broad and as varied as humanity itself. Indeed, we the citizens are the substance of the city, the streets and structures but the framework. Together these two elements constitute the subject matter of civic design. But that study should be more than simply an academic pursuit.

Citizenship is an exercise in co-operation. We are quick to appreciate the benefits of this co-operation but we too often grumble at the price that must be paid to obtain these benefits.

When municipal taxes are no longer considered as a burden but as a privilege, when we have learned willingly to give the right-of-way to our fellow motorist, when we can forgive our neighbour and his dog after we find our garbage can investigated overnight and our favourite rosebush uprooted, when we can give our blessing to the revellers who disturb our slumber and still smile at the fellow who habitually parks his car in front of our door, then we shall truly be called citizens. Then we can begin to think of planning the perfect city.

We have probably also forgotten how to appreciate the richness of our urban environment. To a child still filled with the wonder of the world about him the old abandoned house marked for demolition becomes a haunted castle. We erect a high fence around the junk yard to hide it from view. But to a little boy this is Treasure Island.

Do not misunderstand me. I am not pleading for more empty houses and more automobile graveyards. Of course we should continually attempt to make cities more attractive, more sanitary and less hazardous. But we should not attempt to sterilize the city in the process.

In the designing of our cities we should learn to compromise between certain legitimate ideals and the inescapable realities. Cities will continue to grow and become more complex. We cannot hope for any permanent solution to our urban problems nor should we fear the task of continual adaptation. We should not try to find escape in the vision or the mirage. Heeding Rudyard Kipling's counsel, we should keep on dreaming dreams of the better city, but not make dreams our master.

Whether future generations will approve of us or blame us for what we have done, whether they bestow their blessing on us or refuse it should not be cause for concern. They will have problems of their own to face just as we have ours today.

The city will remain the most fascinating as well as the most vexing medium of human activity, holding out the greatest opportunities as well as the greatest disappointments. Our ability to meet challenges as they come, according to Toynbee, is the guarantee of our survival. The city of tomorrow will not extinguish itself, as the more despairing appraisal would have us believe, but will find a new and richer growth through the very problems that assail it. ✦✦✦

Albert Potvin, one of a family of 19 children born of French-Canadian parents, is a native of Edmonton, Alberta. Leaving school at the age of 14 he was, among other things, a bank clerk, radio operator and forest research technician, before taking up writing as a vocation. In 1950 he became assistant editor with the Canadian Lumbermen's Association and two years later joined CMHC where he worked for 11 years. In May, 1964 he accepted the post of bilingual editor with the Centennial Commission, Ottawa. He is the author of numerous articles in both English and French.

Le présent article est la fin d'une série de deux articles sur le logement au Japon publiés dans cette revue.

Rénovation urbaine au Japon

par Roméo Mondello

Le Japon, à mon sens, est un des pays les plus séduisants qu'il y ait au monde. Son intérêt vient de ce qu'il présente un singulier mélange d'antique civilisation orientale et de moderne civilisation européenne.

Les survivances du vieux Japon groupent la vie matérielle, la vie morale, les moeurs et coutumes, l'agriculture, la petite industrie, le petit commerce, les distractions, les religions, les arts, la littérature.

Dans les emprunts à l'Europe il y a la science, la grande industrie, le grand commerce, la politique, la démocratie, les finances, l'administration, la justice, l'armée, la marine, l'enseignement.

LA POPULATION

Mais quelle est donc la population de ce pays, sa concentration, et dans quel décor physique ou cadre géographique évolue-t-elle?

Eh bien, vous le savez déjà, le Japon est le petit géant de l'Asie, dont il garde l'entrée à l'Est: c'est le pays du Soleil levant, puisque à l'heure même où je vous parle, soit par exemple 9 heures du soir mercredi à Montréal, il est déjà 10 heures du matin jeudi, à Tokyo. Les Iles du Japon, car ce pays est un archipel, se comptent par milliers (3000 environ), dont quatre principales.

Dans un pays comme le Japon, où la population atteint presque les 100 millions d'habitants, sur un territoire inférieur au quart de la Province de Québec, où habitent à peine 5 millions d'habitants, on peut imaginer facilement l'encombrement, le tassement des individus, la confusion qui existe aux heures de pointe dans les villes ayant plus d'un million d'habitants, comme Nagoya, Yokohama, Kyoto, Kobé, sans oublier Tokyo, 9,600,000 et Osaka, 3,300,000 habitants.

Ces deux grosses agglomérations urbaines ou conurbations, soit les régions de Tokyo et d'Osaka, ont absorbé à elles seules près de 90 pour cent de l'augmentation totale de population depuis 1955, et dès octobre 1960, elles groupaient déjà un tiers de toute la population du pays.

Une concentration de population aussi massive a engendré un éparpillement désordonné des surfaces bâties, la détérioration des secteurs résidentiels, le manque d'espaces libres, une congestion chaotique de la circulation, l'inefficacité des utilités publiques, et une pénurie aiguë de logement.

GÉOGRAPHIE, SECOUSSES SISMIQUES, TYPHONS

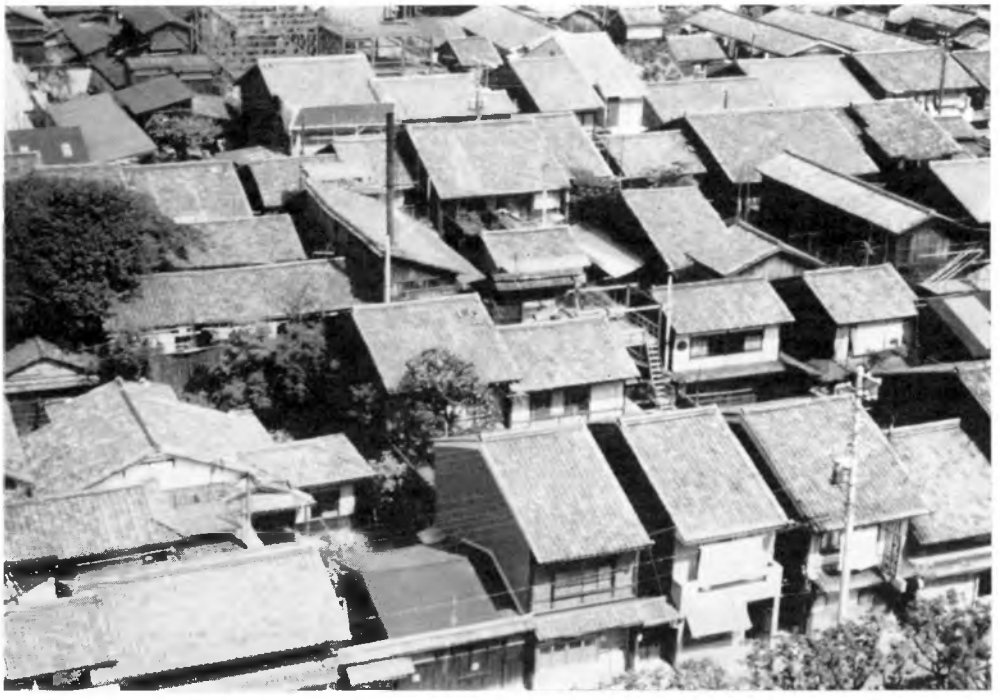
Comme vous le savez sans doute, les îles japonaises sont couvertes de montagnes, qui ont surgi à l'occasion de bouleversements volcaniques. Toutes ces montagnes occupent 73% de la superficie complète du pays; 250 sommets ont plus de 6,500 pieds, et le plus élevé est le Mont Fuji à 12,365 pieds. C'est un volcan dont la dernière éruption remonte à 1708. Le Japon compte 192 *volcans* dont 58 sont encore en activité.

Chaque année, des typhons, suivis de vents violents et de pluies torrentielles, infligent au pays des dommages condisérables, en plus de nombreuses pertes de vie. Les grands tremblements de terre sont encore plus dévastateurs, le dernier en 1923 ayant fait plus de 250,000 morts et blessés dans la région de Tokyo la capitale, causant l'écroulement de 100,000 maisons et l'incendie de 320,000 autres.

PERTES DE VIE, RÉCUPÉRATION DU SOL

Les nombreuses pertes de vie et blessures de toutes sortes qui s'ensuivent, sont causées évidemment par la forte densité de population qui est de 624 par mille carré, la troisième au monde après la Hollande et la Belgique. Tout comme la Hollande, le Japon s'évertue présentement à s'agrandir, en asséchant du terrain avec l'aide de l'expérience et des conseils de spécialistes hollandais.

On vient à peine de parachever une digue pour



Les toits de maisons d'habitation à Kyoto.

bloquer une baie au nord-ouest de Ky ushu, en vue de la drainer de façon à créer 18,250 nouvelles acres de terre cultivable.

On procède également au vidage du deuxième plus grand lac du Japon—Hachiro Gata—au nord-ouest de Honshu—afin d'ajouter 42,500 acres, et une récolte de riz d'environ 1,500,000 boisseaux par année.

Pendant que les Japonais construisaient récemment le tunnel à deux niveaux pour automobiles et piétons, entre les îles Honshu et Kyushu, on récupérait toute la terre afin de l'utiliser à nouveau: avec les 14½ millions de pieds cubes de roches et de terre qu'on arracha du fond de l'océan, on a pu ainsi ajouter quelques autres précieuses acres au sol japonais.

SOL TRÈS MOU

La plupart des villes du Japon, y inclus Tokyo et Osaka, ont été construites au-dessus de plaines d'alluvions créées par de grandes rivières, on pourrait même dire au-dessus de marais. Jusqu'au littoral, qui a été rempli pour y ériger des usines. Il y a de nombreux endroits où la couche alluviale mesure 100 à 200 pieds d'épaisseur, et alors, les vibrations causées par les secousses sismiques sont fortement ressenties, le choc subi par les édifices étant beaucoup plus violent que dans les régions où le sol est plus solide.

En ce moment, il existe des restrictions quant à la hauteur maximum des édifices dans les villes. Comme résultat, il y a tendance à construire quatre ou cinq sous-sols dans les centres urbains, où le prix du terrain est élevé. Cependant, dans ces secteurs, la couche de terre molle est profonde et les édifices sont fort rapprochés les uns des autres. Les ingénieurs ont donc beaucoup à faire dans les excavations profondes, pour ne pas nuire au sol ni aux édifices avoisinants.

TENDANCE VERS LES BÂTIMENTS EN HAUTEUR

La hauteur maximum permise des édifices dans les quartiers commerciaux est généralement de 100 pieds; dans les districts résidentiels, 65 pieds.

Cette restriction ne découle pas seulement de la crainte des tremblements de terre, mais vise surtout à prévenir toute perturbation dans le voisinage d'édifices trop élevés, de même qu'à éviter la congestion de la circulation venant d'une concentration trop forte de population dans un endroit donné. En conséquence, s'il y a suffisamment de dégagement autour du site d'un édifice, la limite maximum pourrait être dépassée.

Tel que mentionné précédemment, il y a eu une augmentation marquée dans le nombre de sous-sols ajoutés sous les bâtiments, afin d'accroître le taux d'occupation du terrain, eu égard à la valeur de celui-ci qui a monté en flèche dans les centres-villes. Comme d'autre part, le coût de construction de ces sous-sols est très élevé, les demandes se font pressantes

en vue d'adoucir les restrictions sur la hauteur des édifices.

PROJET DE REVISION DU RÈGLEMENT DE CONSTRUCTION

Ce raisonnement est à la base des projets de revision du Code de construction. Le code, ainsi revisé, n'imposerait pas de restrictions sur la hauteur, mais contrôlerait seulement la superficie de plancher des édifices, en imposant un indice entre l'aire totale des planchers et celle du site sur lequel est planté l'édifice, rapport qui se voudrait là-bas de 10 au maximum allant en diminuant, selon les quartiers et la surface du terrain à construire. A Montréal, le facteur courant est de 12.

Si cette revision est introduite dans le Code, des édifices de 20 et même 30 étages seront possibles, avec une superficie bâtie réduite par rapport au site offert. Tout de même, le problème des bâtiments de cette hauteur demeurera toujours lié aux tremblements de terre, mais les ingénieurs japonais sont prêts à relever le défi.

L'HABITATION

Passons maintenant au chapitre de l'Habitation. Dans toute maison japonaise, le jardin tient une place égale à celle de l'habitat. Ces deux éléments doivent former un ensemble en parfaite harmonie avec le site alentour. Les maisons, aux lignes très sobres, sont généralement construites en bois et montées sur pilotis pour assurer, malgré leur apparente fragilité, une plus grande résistance aux nombreux séismes dont le pays est le théâtre.

La maison traditionnelle japonaise est le contraire de la nôtre; elle procède de l'intérieur vers l'extérieur; l'horizon est le prolongement de la nature, la nature de la maison.

Ses pièces ne sont pas différenciées: elles s'expriment uniquement par le nombre de tatamis, tapis de 6′ x 3′; elles se délimitent à volonté par des cloisons coulissantes amovibles; elles communient avec l'extérieur par des portes coulissantes, transparentes et translucides, réglant ainsi et diffusant la lumière à volonté.

Et tandis que nos demeures de pierres se sont posées longtemps, tel un bloc retenant l'homme secrètement dans ses murs, l'architecture japonaise se faufilait, elle, tranquillement dans la nature dont elle respectait et exaltait les lois. Mais il y a eu la guerre.

MATÉRIAUX: *Bois, acier, béton*

La plupart des maisons d'avant-guerre au Japon étaient faites de bois, mais après la destruction de presque toutes les villes par la guerre, un mouvement fut lancé à l'échelle nationale pour la construction de maisons à l'épreuve du feu. Les statistiques de 1962 indiquent qu'environ la moitié des bâtiments mis en chantier cette année-là étaient soit en acier, soit en béton armé. Un des types de bâtiments à l'épreuve du feu le plus en vogue, dans les années d'après-guerre, était celui en blocs de béton.

Puis, devant l'accroissement substantiel du coût des matériaux et de la main d'oeuvre, on adopta graduellement le système de dalles de béton de 6 à 10 pieds, précoulées à l'usine, puis assemblées sur le chantier.

MAISONS PRÉFABRIQUÉES

De pair avec ces genres de maisons, les bâtiments "préfabriqués", utilisant des matériaux légers, ont été mis sur le marché par divers fabricants de matériaux et compagnies de construction, au cours des dernières années. Un modèle utilise des aciers minces pour la charpente, à laquelle sont attachés des panneaux de fibres diverses, d'amiante-ciment, de feuillards d'acier, et de plastique.

Comme le coût des maisons préfabriquées en acier mince est encore plus élevé que celui des maisons en bois, leur succès n'a pas duré, de sorte qu'aujourd'hui, avec le coût accru de la main-d'oeuvre pour la maison de bois, la production industrielle de maisons préfabriquées semble être la meilleure solution d'avenir.

En tout cas, il y a du pain sur la planche car, même si l'industrie du logement représente, à l'heure actuelle, seulement le quart du capital investi dans le domaine de la construction de logements, cette construction n'a pas encore atteint le rythme qu'il faut, pour satisfaire à la demande annuelle de logements additionnels, et qui est de l'ordre d'un million d'unités.

LA CIRCULATION ET LE STATIONNEMENT À TOKYO

Ceux qui ont vu la circulation routière se transformer, aux heures d'affluence, en un terrifiant embouteillage,

Dans toute maison japonaise, le jardin tient une place égale à celle de l'habitat.

ceux-là éprouvent parfois un sentiment d'épouvante et d'ahurissement. Il semble que le chaos qui règne dans les rues soit irrémédiable.

Cependant, on s'efforce fébrilement d'ordonner les mouvements de cette foule, de ses denrées et de ses services, dans la plus grande ville du monde. Le plan d'ensemble du réseau de transport de Tokyo comprend les chemins de fer, les autostrades au sol et sur tablier, les facilités de stationnement, les améliorations apportées aux rues locales, ainsi que les nouvelles voies souterraines.

Dans le cas particulier de Tokyo, la population s'accroît de 300,000 personnes par année et, alors qu'il y avait 610,000 véhicules dans la cité en 1960, il y en aura bien au delà d'un million en 1965.

Trois mesures vont contribuer à agrandir l'espace libre dans les rues actuelles; on s'en préoccupe déjà: la suppression des tramways, le prolongement des lignes souterraines, et l'élargissement de plus de mille milles de rues existantes.

RUES ÉTROITES

Seulement un dixième de la superficie terrestre de Tokyo est utilisé par la circulation, comparé à Londres et Paris, par exemple, qui consacrent un quart de leur surface à des chemins; New-York, un tiers, et Los Angeles pas moins de la moitié. A Montréal c'est 30%.

A part quelques routes qui sont raisonnablement larges, les rues anciennes n'ont généralement que 13 à 20 pieds, les ruelles 6 à 9: il n'y a pas de trottoirs sur les vieilles rues.

Il arrive donc, que lorsqu'un camion-benne se lance dans un chemin de 12 à 15 pieds d'emprise, en évitant toutes sortes d'obstacles, les piétons doivent s'aplatir le long des murs, des clôtures ou des devantures de magasins. Les nombreux poteaux de service, qui supportent un câble aérien, servent parfois de protection. La rue sert donc non seulement de moyen de circulation pour piétons et véhicules, mais aussi de terrain de jeux pour les enfants, de chargement des marchandises, de stationnement, à des discussions animées, et à mille autres usages.

On s'inquiète beaucoup du nombre élevé d'accidents de la circulation, dont le bilan chaque jour est

Ancienne rue étroite avec maisons
à toiture à angles retroussés.

de 2 ou 3 morts, et 150 blessés.

PROJET DE RÉSEAU ROUTIER

Ces lourdes pertes ont amené le Gouvernement à agir en 1959, tout en ne surchargeant pas le réseau routier de Tokyo plus qu'absolument nécessaire. Les plans actuels sont pour trois routes concentriques autour de la capitale, traversées par huit rayons principaux qui s'abouchent aux principales routes existantes, une fois traversé le cercle extérieur, qui lui s'étend tout autour de Tokyo sur un diamètre de 14 milles.

Vu que le cercle extérieur sera une autostrade presque entièrement aérienne, l'automobiliste trouvera une gare de stationnement sous le tablier de cette route, au bout de chaque rampe de sortie.

L'accès aux media de transport public, tramway ou autobus, est relativement facile et l'on pourra se rendre au coeur même des affaires ou des amusements sans trop d'efforts. Mais aux heures d'affluence, c'est le taxi puis le piéton qui resteront maîtres.

Pour éviter de démembrer les communautés naturelles, les autoroutes seront érigées au-dessus de vieux canaux, des rivières, des rues larges déjà existantes, et des terrains vacants.

STATIONNEMENT

A Tokyo, on stationne encore dans les rues, où l'on a posé des compteurs pour aider à défrayer le coût de la construction de futurs garages. Le Code du Bâtiment exige que tous les nouveaux bureaux, théâtres, et autres édifices publics prévoient l'espace d'une auto pour chaque 4,000 pieds carrés de surface de plancher. Ici c'est 1,000.

L'édifice à bureaux moyen, à Tokyo, comprend deux planchers de stationnement dans le sous-sol, puis un autre sous-sol, ou un rez-de-chaussée de boutiques et de restaurants. Les magasins à rayons, il y en a 17 majeurs à Tokyo, ont vite réalisé qu'ils perdraient leurs meilleurs clients aux nouvelles cités de banlieue, s'ils n'avaient pas l'espace de stationnement requis pour leurs véhicules. C'est pourquoi ils font des efforts inouïs pour faciliter le stationnement.

Une section de la voie élevée qui traverse le quartier Ginza comprend trois planchers sous le tablier, où l'on trouve des boutiques, un magasin à rayons, des restaurants, une arcade de petits magasins dans le sous-sol, des bureaux et une salle de cinéma. Ailleurs, l'espace sous le tablier, quand il n'est pas

utilisé à des fins de stationnement, est affecté à de l'entreposage, ou à d'autres utilités.

Enfin, quand la mesure est justifiée, on aménage du stationnement sur la partie centrale du tablier. Le but est d'incorporer l'autoroute, autant que possible, dans la structure même de la ville. Cette mesure dévie de la coutume américaine courante.

UN MÉTRO MODERNE

A ce moment précis où Montréal est à construire son métro de 15 milles et un dixième, Tokyo prolonge le sien à 101 milles. Sa longueur présente est de 24 milles. Une fois terminé, le métropolitain de Tokyo sera le cinquième plus long au monde, se classant derrière ceux de New-York, de Londres, de Chicago et de Paris. Il y a également 18 milles de métro à Osaka, et 5 milles à Nagoya.

LA CAPITALE RÉGIONALE: *Géographie et Plan directeur*

La capitale régionale s'étend sur un rayon de 60 milles, autour de la gare centrale de Tokyo. Le territoire sous contrôle englobe 9,600 milles carrés, soit 6.5 pour cent du pays tout entier. On a divisé la région de la capitale en trois zones: la zone construite, la zone de ceinture verte, et la zone périphérique qui comprend les villes satellites.

Afin de freiner en quelque sorte la croissance extraordinaire de la métropole, diverses mesures énergiques ont été préconisées au niveau des trois gouvernements: national, régional et local. L'une d'elles est la construction de villes satellites industrielles, et la Commission du Développement de la région de la capitale en a déjà proposé dix. Cette Commission a vu le jour en 1956.

Dans ces villes satellites, les développements industriels et domiciliaires ont été établis en étroite relation, afin que, d'ici 1975, chaque ville soit capable d'absorber et d'intégrer une population additionnelle de 100,000 âmes. Pour y arriver, le développement industriel doit précéder le développement domiciliaire, de façon à éviter que la ville satellite ne devienne, elle aussi, une autre ville-dortoir pour Tokyo.

RESTRICTION DE LA CONSTRUCTION AU CENTRE, ENCOURAGEMENT À LA DÉCENTRALISATION *des industries et des institutions d'enseignement*

Cette Loi du développement de la capitale régionale vise à un développement ordonné de la région de Tokyo, par la construction de villes satellites dans la zone périphérique, tout en interdisant la construction de nouvelles industries, de même que l'extension d'industries existantes dans le territoire déjà bâti.

Un stimulant puissant, soit la loi sur la commutation de taxes, autorise également le Gouvernement central à réduire les impôts sur les corporations, et sur les revenus des industries, qui déménageront leurs pénates des zones de restriction, pour aller les installer dans des villes satellites désignées par avance.

RÉNOVATION URBAINE

La loi de rénovation urbaine, ou de reconstruction des secteurs vétustes, votée à la Diète Nationale en juin 1961, vise à promouvoir une utilisation plus rationnelle du territoire urbain, au moyen de l'amélioration du réseau routier, des plazas, et autres utilités, de même que par le rajustement des îlots ou pâtés de constructions, riverains à la voie publique.

Les responsables de ce travail doivent établir le plan-masse, ou plan d'ensemble, des édifices envisagés dans le secteur désigné, conformément à un plan proposé par le Conseil d'Urbanisme de la Cité, ensuite de quoi le terrain est loué ou vendu en lots de préférence aux anciens résidants du secteur, sinon à d'autres personnes.

ÉTABLISSEMENT D'ÎLOTS D'ÉDIFICES À L'ÉPREUVE DU FEU

Une loi pour la construction d'îlots d'édifices à l'épreuve du feu a été adoptée en juin 1961 également, pour prévenir les désastres urbains, promouvoir une utilisation plus rationnelle du sol, et améliorer les conditions générales du voisinage.

Le Gouvernement Métropolitain de Tokyo est actuellement en train de parachever un plan directeur général visant à atteindre le but fixé par la loi, et il accorde même des subsides pour défrayer une partie du coût de la construction, à quiconque veut ériger un bâtiment à l'épreuve du feu, dans un îlot ou pâté d'édifices à l'épreuve du feu.

PARCS ET ESPACES LIBRES

Les parcs et autres espaces libres sont indispensables aux habitants d'une ville moderne, tant pour fins récréatives que pour servir d'oasis en cas de désastre. Toutefois, Tokyo est loin en arrière des grandes

cités d'Europe et d'Amérique, avec ses deux dixièmes d'acres de parcs par mille de population. A Montréal nous avons trois acres par 1000 hatibants, et cela n'est déjà pas assez; c'est pourquoi le manque de terrains de jeux pour enfants et adolescents à Tokyo reste un problème urgent qui requiert une solution immédiate.

Des mesures sévères sont donc nécessaires pour prévenir le morcellement et la disparition graduelle des parcs, au bénéfice de lotissements pour terrains à construire, comme la chose s'est malheureusement pratiquée, surtout après la dernière guerre.

On doit prendre aussi des dispositions énergiques afin de préserver et sauvegarder les beaux endroits de décor panoramique qui restent, et qu'on garde encore jalousement à l'intérieur de Tokyo, parce qu'il est devenu de plus en plus difficile d'obtenir de l'espace additionnel pour fins de parcs et d'espaces libres.

MESURES CONTRE LES INONDATIONS

Le district du delta de Koto est exposé aux inondations, en raison de l'affaissement du sol qui est résulté d'un pompage excessif de l'eau souterraine. Pour éliminer les causes d'affaissement du sol, des restrictions ont été imposées depuis janvier 1961, en accord avec la Loi des Eaux Industrielles sur le pompage de l'eau souterraine dans cette région.

Parallèlement à cette mesure, un plan quinquennal de développement des aqueducs industriels a été élaboré et mis à exécution depuis 1960, plan dont le but est de fournir aux industries de la région, non pas de l'eau souterraine, mais des eaux traitées, en provenance de deux usines d'épuration d'égouts qui existent dans le secteur.

VILLAGES DE VACANCES POPULAIRES

Des "villages de vacances populaires" sont en voie de construction dans 20 parcs nationaux et 19 parcs quasi-nationaux, par les soins du ministère japonais de la Santé et du Bien-être.

L'ambitieux programme a pour objet de fournir des logements convenables à des prix modérés, afin que la famille moyenne du Japon puisse s'offrir des voyages de vacances vers de beaux paysages à travers le pays.

On a lancé le projet en 1961. Dix villages ont été parachevés en 1963. Ces "villages populaires" offrent de nombreuses commodités, et peuvent loger chacun de 800 à 3,000 personnes chaque jour dans des chalets.

Les services de loisirs disponibles comprennent les terrains de camping, les piscines, les endroits de canotage, les terrains de skiage et de patinage, les aquariums, les musées, les jardins botaniques. Une personne peut louer une chambre pour la nuit et prendre deux repas, le tout pour $2.00. A noter ici que le salaire du Japonais moyen dans le moment varie de $50.00 à $85.00 par mois.

Conclusion

Et voilà, l'Urbanisme et la Construction sont quelque chose de très remuant au Japon. Je suis bien loin d'avoir épuisé le sujet, tant s'en faut. Cependant j'espère que ces quelques notes ont pu intéresser le lecteur et lui donner le goût, peut-être, d'aller voir ce qui se passe au Japon.

Je n'ai pas eu le temps malheureusement de présenter ici ce qu'est la Grande architecture japonaise

a) *dans ses temples bouddhiques* en bois peint ou laqué, à toiture concave, saillante, et couverte de tuiles, les pointes étant relevées à la Chinoise, qui comprennent aussi la pagode à plusieurs étages,
et

b) *dans ses sanctuaires shintoïstes*, en bois naturel, avec toits à pente droite, recouverts de chaume ou de sapin, des enceintes de pieux entourant les édifices, sans oublier le portique "torii" à l'entrée de la cour. ✦✦✦

Monsieur Roméo Mondello, Ing.P. est actuellement le directeur du Service des permis et inspections de la Cité de Montréal. Il est diplômé en Sciences appliquées et Génie civil (1930); Sciences sociales, économiques et politiques (1934); Journalisme (1935); B.A. et Licence en philosophie (1943); Maître ès sciences en Génie sanitaire, Harvard, 1948; Bachelier en droit (1951). Il fut admis au Barreau de Montréal en 1956. L'année suivante, après sa nomination comme membre de la Société Royale d'Hygiène en Angleterre, il fut délégué en Tunisie par l'ONU en qualité d'expert de l'Organisation Mondiale de la Santé.

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 120 screen, copper halftones are by Bomac.

CENTRAL MORTGAGE AND HOUSING CORPORATION

SOCIÉTÉ CENTRALE D'HYPOTHÈQUES ET DE LOGEMENT

OTTAWA, CANADA

HABITAT

NOVEMBER-DECEMBER, 1964
NOVEMBRE-DÉCEMBRE, 1964

NFB

Winter scene near Ottawa

HABITAT

VOLUME VII
NUMBER 6

HABITAT, a bimonthly publication of Central Mortgage and Housing Corporation, is listed in the Canadian Periodical Index and authorized as second class matter by the Post Office Department and for payment of postage in cash.
Opinions expressed by the authors are not necessarily those of CMHC. All communications should be addressed to the Editor, H. R. B. MacInnes.

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A BIG YEAR FOR HOUSE BUILDING

Canada experienced the greatest volume of house building activity in its history during 1964. With 165,658 housing starts, the figure was 11.5% higher than that of 1963 and slightly above the previous record set in 1958.

The very significant factors are becoming apparent this year.

1. In 1958 family formation was at its highest peak and was in turn reflected in the amount of house construction. As this tapered off in succeeding years house construction followed suit. The large number of children born during and immediately after World War II is just now entering the market and first report of the Economic Council of Canada states that net family and non-family household formations will continue to rise for the next few years.

2. In 1963 the introduction of the Winter House-Building Incentive Program was successful with 28,113 dwelling units constructed during the off-season. The 1964 program will produce about the same quantity making house construction a year-round enterprise with increased winter employment in the building trades.

3. Although house construction generally was up more than 11% over 1963 the increase was accounted for entirely by apartments and row housing built for rental purposes. This type of construction increased by 26% over the preceding year.

It would appear that for the next five years housing starts should continue to increase, particularly in the rental sector.

✦ ✦ ✦

DESIGN IN SWEDEN TODAY

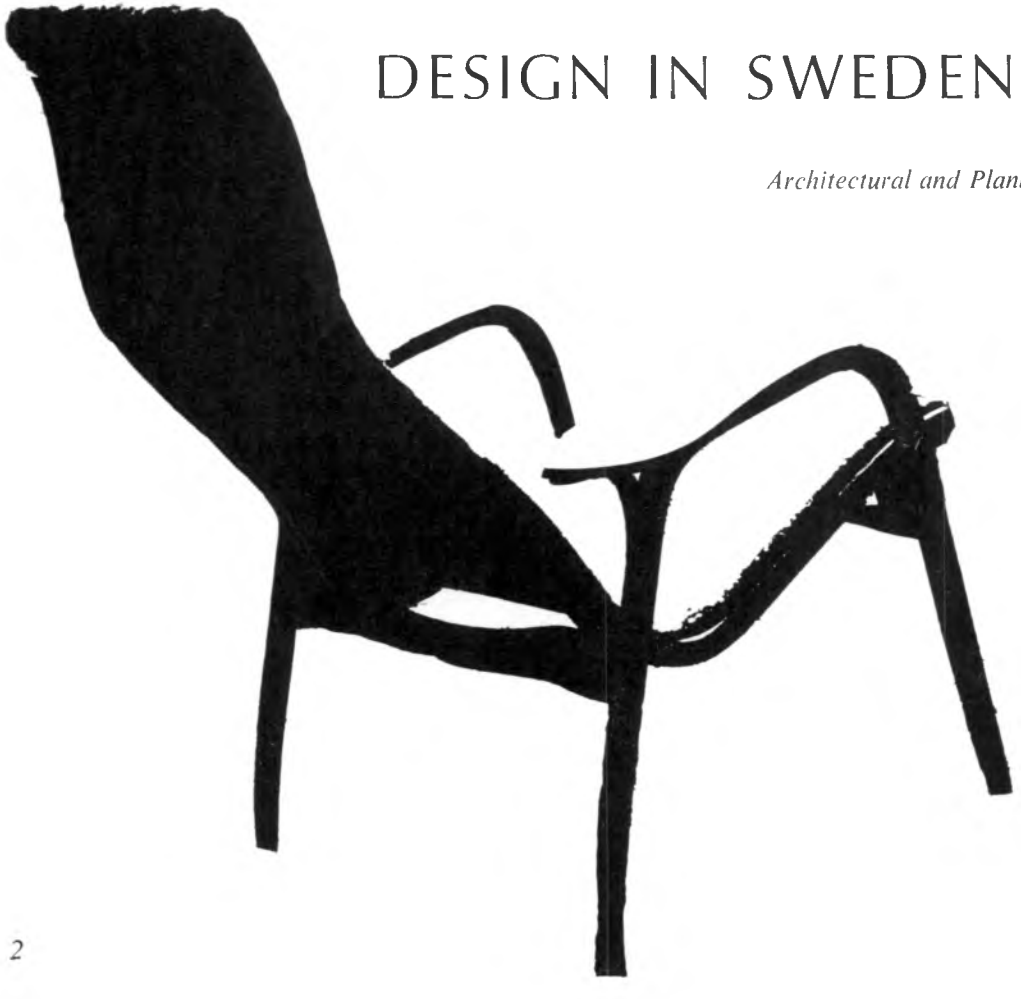
by Maurice Clayton,
Architectural and Planning Division, CMHC.

When we hear the term "Swedish Design", an image is conjured up that is the same for us all. Even the layman in North America is so conditioned he has been heard to marvel that they have this design in Sweden too. The image is anonymous and has national acceptance. Since the field of design is constantly changing to some degree, it is important to know something of the background of the Swedish designer and to try to understand some of the influences under which he is working.

Sweden is isolated. To the West are the mountains of Norway and to the East, beyond the Baltic and Finland, broods the U.S.S.R. Probably a better description of her location would be to say that Sweden lies on the periphery of Europe. For any country that is so dependent upon its exports, not being a centre of communication or situated on a world trade route presents very real problems. These seem to be solved successfully.

Though in our terms Sweden is a small country, being something less than half the size of Ontario, the range of climate and landscape is not dissimilar to that of Canada. Sweden has the mountains and the snows of the Far North, the large forests and numerous lakes in the central areas, and the warmer farmlands of the South. The extensive chains of islands on the Baltic coast have a striking similarity to the Gulf Islands of British Columbia.

We often forget—if we ever knew—that Stockholm, which is situated in the lower half of the country, is approximately in the same latitude as Northern Labrador or Whitehorse. Fortunately, the climate is not nearly so severe, a result of the warming effect of the Gulf Stream sweeping the west coast of Scandinavia. Because of the country's northern location, the lack of sun in winter has a marked effect on the people, so much so that the coming of spring is heralded with an almost pagan joy.



Apart from the Vikings who roamed fairly indiscriminately in search of plunder, and some later crusading forays into Finland, Swedish history seems to start instantly in the early part of the sixteenth century—to be precise, in 1521. At this time the country rebelled against the domination of Denmark; the leader of the successful uprising became a national hero, as any visitor is quickly made to realise. He was subsequently crowned king and took the name of Gustav Wasa. Under him Sweden broke with the Roman church and later established its own Lutheran Church. His immediate successors expanded Swedish domination until Finland, the Baltic States and Northern Germany all were under her rule. It was during the reign of Gustav III that Swedish culture flowered and began making its contribution to the cultural stream of Europe.

Since the early part of the nineteenth century to the present day, Sweden has enjoyed a long period of peace. Through a policy of neutralism she has managed to avoid participation in any of the European conflicts. This policy is essentially the same today but with one important difference, the opportunity to play an active role in international affairs as a member of the United Nations.

The Swede is acutely aware of the critical opinion in the Western world over his position of neutrality and he finds relief in this means of an active participation—neutrality for him is no longer synonymous with isolation. He accepts his role in the United Nations peace-keeping operations, and his major contributions of assistance to the underdeveloped countries, as part of a national moral duty.

The Swede is proud, proud of his history, his country and its achievements, though for a stranger this pride can convey a smugness which is unfortunate because it is not intentional. In character he tends to be introverted and an expansive flamboyant gesture does not come easily; he is inventive and possesses a tremendous ability for organization. He has a high level of education and this is well illustrated by the quality of public discussion which is not left solely to the intellectual. If we consider his work in the field of design, any self-satisfaction he may have, I think, is excusable. When he leaves his Baltic isolation and sees the generally low standard of design in the world compared with what he is used to, can we blame him for feeling so? But there is a trap in this, and he is sometimes caught. When he is assessing the level of design of other countries, he can forget to look for their peaks of achievement which can be as high or even higher than his own, and he loses by doing this. Maybe we are partly responsible for creating some of his attitudes we are quick to criticize. We should be more inclined to stop for a moment and consider the path we have beaten to his door.

From the economic point of view Sweden is wealthy. The visitor is not particularly conscious of this by show on the part of the nation itself or by private individuals, but rather does the whole society give an impression of well-being. To put it another way, Sweden looks a successful country. Their affluence is fairly recent, having largely come about since the 1930's and resulting from a tremendous expansion of industry. It is interesting that in the 1930's more people derived their income from agriculture than from industry—36% of the labour force —whereas today the figure is only 12% of a population of 7½ millions. Within the last 10 years alone the average individual income has increased by about 80% raising the standard of living to a par with that of North America.

This sudden increase has inevitably brought difficulties in its wake. For example, the increase in the number of cars is seriously affecting traffic circulation as well as car parking and the housing problem has been brought into sharp focus. We have tended to assume that, in the city, the Swede is an apartment dweller, as are the people in many other European cities, but this is not entirely so. The prevalence of the apartment building has been due to economic planning, and since there has been a strict and rigid government control over housing he has not had a free choice. Now, with an increased income plus greater mobility, he is resenting the lack of accommodation—the official waiting time in Stockholm for an apartment is more than six years—and he also resents the low space standards when he eventually gets it.

Why the housing problem in Sweden has not been solved is open to speculation. There are no slums, no devastation of war, a highly industrialized society, and a high degree of building component prefabrication, etc. The only conclusions I could reach were that economically the housing market is not as free as in North America and that efficiency in creating building components has not embraced the housing industry itself. There is little doubt that over the next decade the mood of the people will force a change and it is to be hoped that this time the Old World will be able to learn from the New.

There are two important aspects of Swedish life that have a direct bearing on today's design. The first is the great interest and participation in the arts and crafts movement. Generally, this work is simple and restrained and is done with a thorough understanding of the materials used; the range of design is not stereotyped, there is obvious interest in fresh approaches to both technique and expression and the romantic quality traditionally associated with craft forms is preserved. The interest is nation-wide and is not in any way a revival, but rather a continuing interest in something that was a normal part of the agricultural society. Consequently the people are not unfamiliar with craft work and there is no self-conscious approach to its appreciation.

The second aspect that has its bearing on design is the make-up of industry: 75% of the industrial firms in Sweden employ 25 people or less. This does not assure good design but it does mean that when a designer is employed there is a great sense of direct involvement. Not every firm that works with designers is this small but the personal involvement is still preserved. The relationship of the artist or designer with industry is particularly close and it is recognized that the designer has an essential contribution to make in the manufacturing process.

To digress slightly, a good example of what this public acceptance can mean is that it is possible to walk into any of the department stores in the larger cities of Sweden and select enough objects, from that one store alone, to make an exhibition of international calibre to illustrate contemporary Swedish Design. Need more be said to make the point?

At the end of the nineteenth century and the beginning of this one, there started in Sweden, as in most countries of Europe, a questioning of the established patterns of thought in all the arts, and a reaction against ideas that were losing their significance in a changing world. In the field of architecture, Charles MacKintosh and Cowles Voysey from Britain had their influence, particularly in housing, whilst the ideas of William Morris were closely studied, no less for his views on crafts, as for his socialism. Coincidental with the start of their industrial expansion and probably because of it, there was a great interest in the philosophy of the Werkbund in Germany and the later Bauhaus. The fight for acceptance of the ideas embodied in the Modern Movement was not an easy one but the final outcome was particularly successful and two international milestones of Swedish design are the Stockholm Exhibition in 1930 and the New York World's Fair in 1938. It was at this latter exhibition that the term "Swedish Modern" was first used and the basic ideas of design then expressed have not changed greatly up to the present time.

Immediately after World War II the influence of Swedish design was felt extensively throughout Europe and North America. Probably its greatest effect was in Britain, particularly in housing, and numerous projects built about this time had their prototypes in Sweden. By the 1950's however the impact had waned, not so much because of a lessening of Swedish skills, but because of the resurgence of the countries involved in the War.

So much for the background of the Swede before attempting to assess the situation of his design today. The brush may have been rather wide but I think the general picture is there.

It must be stressed again that the standard of design is amazingly high. There is a sophistication in so much of it we realize, when we make a comparison with our own standard, how inferior ours can be. But my purpose is not to make a comparison but to try to explain what we might expect from Sweden in the future.

I think it not unfair to say that, in general, one

finds little today that could not have been seen 10 years ago, but there are signs, even though small, that indicate we will see a marked change in approach from that to which we have been accustomed. Some Swedes do not agree with this and argue that when a new creative idea comes along it will receive its recognition: but this raises a question. Recognition by whom? I have the feeling that in Sweden there is a kind of "establishment" in design. There is little evidence to support this; perhaps it is due more to the awesome efficiency of the official organizations that were created by the artists themselves, but nonetheless this feeling of an official seal of approval persists.

Since creative processes are not static it seems to me that design during these last years has been concerned, and almost preoccupied, with refinement of previous work. There need be nothing wrong with this but the danger, historically, is that it can lead to a sterility of form and even decadence if carried too far. No one can accuse present Swedish design of being sterile but it is noticeable that it has lost some of the original vital freshness. It can be argued that, for the world as a whole, this reaction is only the result of overexposure, particularly in North America, but surely the end result is the same.

The degree of competence in the work that indicates a change is not particularly important; the significant thing is that it is being done at all. Basically the change is expressed in a freer, more personal and subjective attitude and at least some examples can be seen throughout all fields of design. It has a romantic quality and in its extreme becomes a rejection of pristine functional theories. In glass one can find a brutalism, in ceramics and porcelain there are experiments in texture and patterns that would previously have been unthinkable, and there is furniture that borders on the whimsical. In architecture there are churches which achieve a medieval air in their form and use of materials. Who would have even dared, 20 years ago, to suggest that Ostberg's Town Hall may one day have an affinity with later work?

Perhaps Lars Gustafsson, a young Swedish author, gives a clue to what all this may mean when he says:

"First come the aberrant works, inspired by God knows what—changes in atmosphere of ideas and in human surroundings sufficiently subtile as to be able to escape lame definitions. Esthetics come trooping afterwards; exactly like a police investigation; it tries to determine what has actually happened and what consequences this may have for the future.

"Naturally the prevalent esthetic idea in its turn then sets its mark on other works of art, but that is another matter. When it has reached that stage, as a rule it has already become tyrannical, a support for the irresolute, second-rate talents who listen to advice and who want to know how you really ought to do. And by then esthetics, the programs, the declarations have already lost their power of attraction for the elite creating something new.

"In other words, esthetics seems to be a subsequent adjustment to the capricious growth of works of art, attempts to bring order out of what has already happened, and hardly anything else. From this it would follow that significant works of art are seldom preceded by pioneering esthetic ideas, but that the works pull along the ideas in their train."

If it were not for one important factor, this assessment could now be complete: a new Romanticism to come, sometimes timid or crude and so on, but based on an aesthetic that would be pruned and polished and eventually emerge as the main stream of development. But I believe modern day pressures will not permit this filtering process, for we are already into the Age of Synthetics. Man so far has relied on the very limitations of the materials used as a great aid in design, but what of tomorrow? What are the limitations if, indeed, for practical purposes there are any? Each day new synthetics are being created that indicate and demand completely new thinking in our approach to design.

The Swedes do not have the answer, but they are hardly alone; neither has the rest of the world. The Swedes do have the opportunity, through their experience, to go far in the search. It will be intriguing to watch their development over the next decade.

EXPERIMENT IN RESIDENTIAL LAYOUT for LETHBRIDGE

by S. J. Clarke

INTRODUCTION

The Oldman River Regional Planning Commission, whose area is the 13,000 square miles of south-west Alberta, has been engaged, for the past four years, in evolving general plans for its member municipalities as a prelude to its major function of regional planning. One of these plans has been a detailed study of the City of Lethbridge.

In the Lethbridge Plan, four new neighbourhood units of approximately 10,000 people are envisaged to be partly developed by 1984. The immediate intention is to prepare four master layouts for each of these areas, so that the gradual growth of the City area can follow pre-planned lines in a variety of controlled directions. The detailed design of residential subdivisions within these master layouts will be varied to suit changing conditions and new ideas within the framework of an overall design concept. The master layout discussed in this article is the first of these proposals. It is the work of the Commission's Design Associate, H. K. Driver, A.R.I.B.A., Dip. T.P., who has produced a scheme of some considerable improvement in a field of design that has too long been dominated by the prosiac and by the prejudice against experiment and improvement.

NEIGHBOURHOOD SPECIFICATION

There has been no attempt made to justify the neighbourhood as a social unit. Its use in the Lethbridge Plan is merely to serve as a means of introducing adequate standards of land-use development. The following table sets out the standards for neighbourhood acreage requirements that have been accepted by the City Council.

NEIGHBOURHOOD ACREAGE REQUIREMENTS

Population 10,000		640	acres
Neighbourhood facilities			
homes 2,857 at 5.4 per net acre		529	
playgrounds and parks at 2 acres per 1,000 population		20	
elementary schools 3-12 rooms		14.25	
shopping		5	
public buildings	5 churches or halls 10 acres		
	branch library 0.5		
	recreation centre and civic buildings 2	12.5	
Community facilities			
high schools	1 junior high 450 pupils	13	
	1 senior high 300 pupils	9	
playfields	at 1.25 acres per 1,000 pop.	12.5	
major parks	at 6.75 acres per 1,000 pop.	67.5	
	Total	682.65	acres

Notes:

1. The difference between the theoretical acreage of 640 and the total of 682.65 is occasioned by the fact that a major park will not be formed in each neighbourhood, although a certain amount of the 67.5 acres will be required for local park purposes in each unit.
2. The high school allotment of 9 acres per 300 pupils is included as a standard; but, in fact, there is likely to be a high school of between 900-1200 pupils for each three or four neighbourhoods.

BASIC CONCEPT OF SCHEME

Although a part of this neighbourhood has already been developed in a far from satisfactory manner, it was decided to make a substantial break with the established pattern. A basic 'Radburn' principle (with variations) has been adopted for the overall plan, with modifications to suit local requirements. The reasons underlying this principle are:

1. The increase in traffic safety through—
   (a) the classification of road functions and profiles to ensure that roads are used for the purpose for which they have been designed, and
   (b) the separation of pedestrian and vehicular traffic so that separate routes exist for each with minimum conflict from every home to either schools, shops, or playgrounds and parks.
2. The social convenience of having the parks and playgrounds adjacent to one end of the residential lot allows for the extension of living space into the park. This arrangement also goes some way towards ensuring that the parks and playgrounds get more use than the isolated open spaces provided in the normal grid-plan where there is both a lack of safety because of adjacent street areas and of convenience because of "spotty" location.

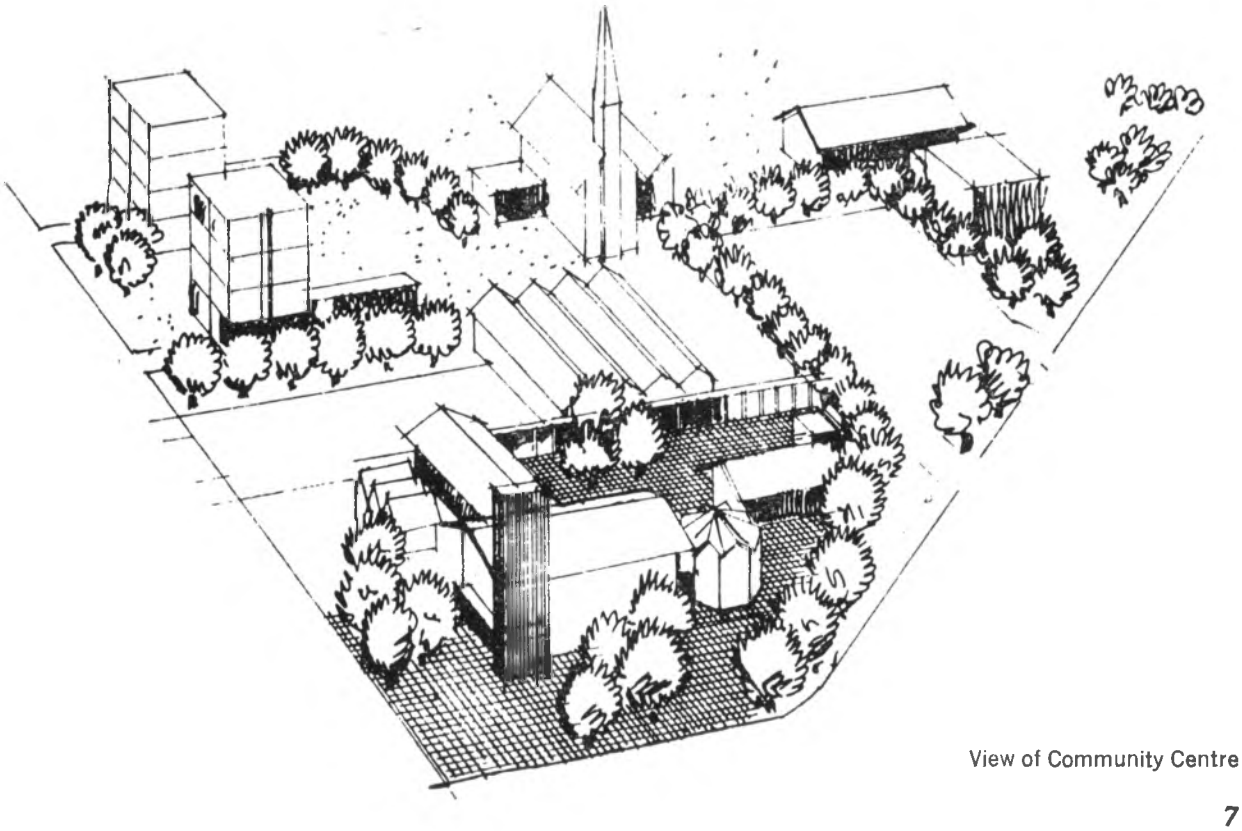
3. The social and aesthetic advantage of allowing houses to be sited, where the particular house design can best be exploited, allows for a substantial improvement in the appearance of residential areas. It is intended to provide (within certain limits) a considerable flexibility in building location on the site by taking each application for a development permit on its merit.

In addition to the 'Radburn' principle, there has been established an overall circulation pattern and an economically and socially convenient distribution of land uses within the neighbourhood. The scheme has been designed around a main collector or "spine" road into which has been led three residential loop roads. These loop roads help to divide up the neighbourhood into four super-blocks, each of which is suitable in size to employ the 'Radburn' principle. At the junction of two of the loop roads with the spine road, a shopping and community core provides the focal point of the neighbourhood.

DISTRIBUTION OF USES

The principal elements comprising the neighbourhood environment are:

1. *Residential facilities.*
   Although it is difficult to ensure a balanced residential development, a positive attitude towards changes in legislation, building controls, and sale agreements on City land (most of the neighbourhood is municipal-owned) is being pursued by the Commission in order to obtain as much of a mixture of housing types as possible. There is no thought of restrictive residential zoning being used.
2. *Neighbourhood and community schools.*
   The three levels of schools each require a specific siting in the residential areas which they serve. A new elementary and a junior school are proposed for the unit. The elementary school has been located more or less at the most central point of the neighbourhood and on the central spine road. The location ensures that children attending this school are within a half-mile walking radius, and that there is a direct relationship with bus routing in the area. Basically, the school has been located to allow easy pedestrian access from any part of the whole neighbourhood.



View of Community Centre

The junior high has been located off-centre to include a portion of the neighbourhood unit to the east in its catchment area.

3. *Social, cultural and shopping facilities.*
   The common factor of these facilities is that they are used each day by one member or more of the average family (whatever that may mean). Particularly, the facilities should provide the focal point of the neighbourhood unit: a physical means to attain community development. As a focal point, such facilities should not be so strong that a conflict arises with the downtown business area.
4. *Utilities and services.*
   These include garbage collection (particularly important in the lane-filled West), and police and fire protection. The design of the unit has been considerably influenced by the economy of locating utility lines and sewers.
5. *Communications.*
   A system of roads classified according to function has been provided to ensure a better than average standard of access (both pedestrian and vehicular) from and to all points within the neighbourhood.
6. *Recreational facilities.*
   It is important that areas set aside for this purpose get the maximum amount of usage possible, and that their location is such that the majority of the residents in the neighbourhood have easy, if not direct, access to these facilities. The amount of open space has been based on 10 acres per 1000 population. The four open space areas radiate out from the focal point of the neighbourhood.

The pattern of residential lots is such that easy programming is possible for the gradual extension of services and lots available as and when the need dictates.

UTILITIES

A study of the servicing problems of the whole neighbourhood indicated two outstanding factors:

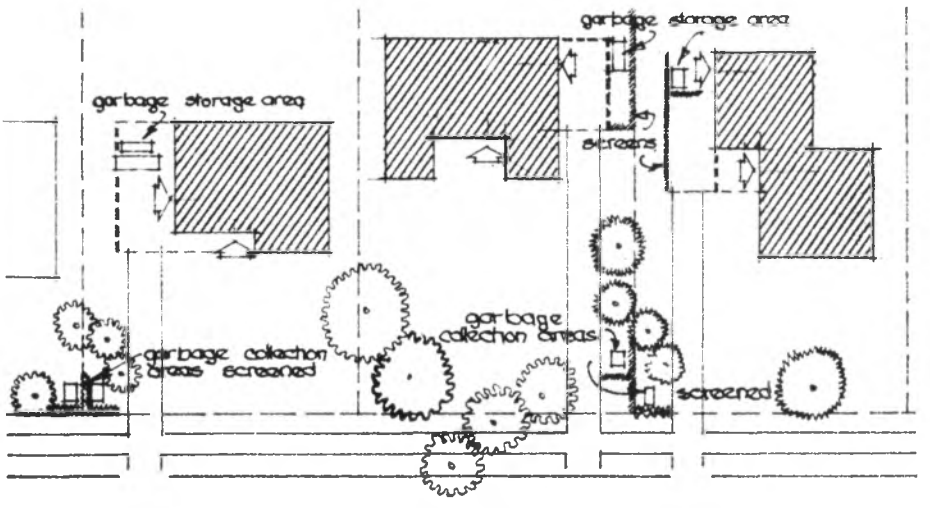
1. That the site drains generally from east to west.
2. That the shallow depression existing on the western super-block provided a natural collection point for the area where natural drainage is contrary to the general drainage direction.

The layout of lines gave little trouble on the design. The following factors, however, are worthy of note:

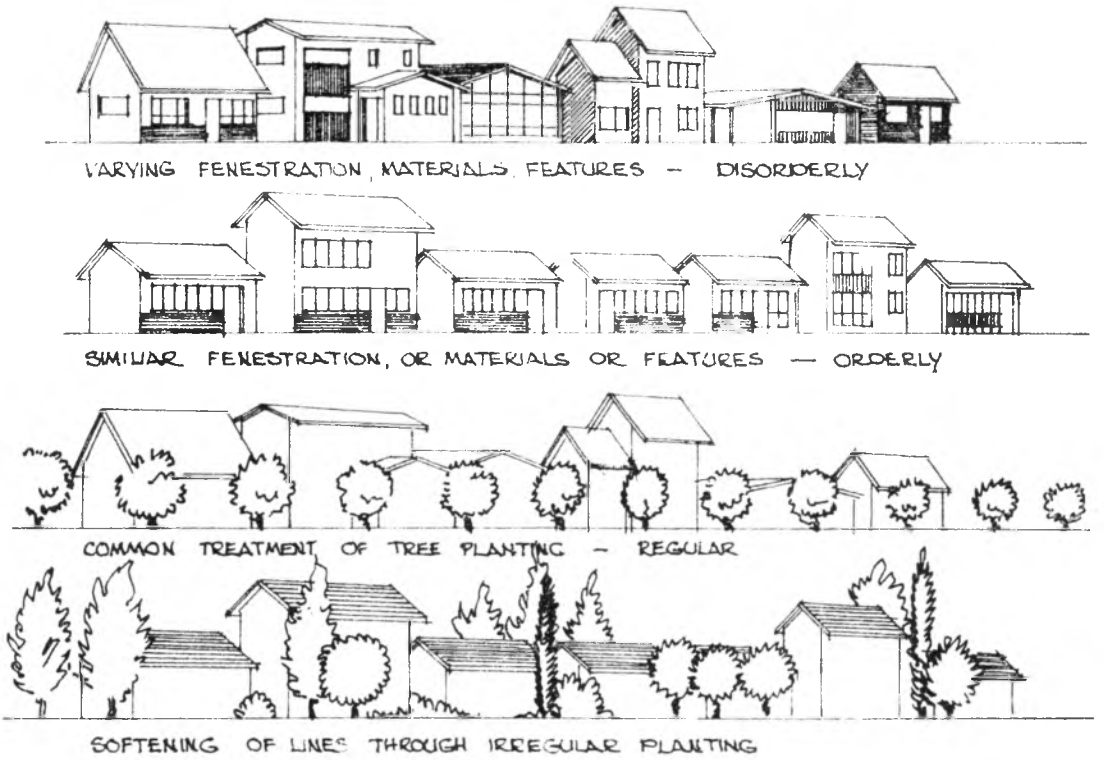
1. The large trunk storm sewer dictated the location of certain cul-de-sacs and open-space easements.
2. The sanitary sewer sub-laterals dictated the location of the cul-de-sacs.
3. The major road system provided the route for the water-service line—the whole system being looped with a cross-service route through the middle of each super-block.
4. With the exception of the main feeder line, all electrical, telephone and television cables are buried.

RECREATION AREAS

The reasons for incorporating the park areas as an integral part of the whole layout are:



Alternative methods for landscape treatment of garbage collection areas



1. The direct inter-relationship of home and park can materially assist in the architectural setting for the residential areas.
2. There are areas provided in which children can play away from the potential traffic hazard of the streets.
3. Private gardens are 'extended' into the open space.
4. Routes are provided (by way of hard surfaced paths) to and from parts of the neighbourhood, which allows the pedestrian little or no contact with vehicular traffic.
5. The very nearness of the open spaces to a large number of homes will result in a greater use of the outdoor facilities.

However, there are a number of requirements that must be maintained in order to fulfill any of the above advantages:

1. Open spaces must be imaginatively landscaped to make the best use of the limited topographical features and to harmonize with the residential development.
2. The alternative pedestrian route through the open space must be paved and illuminated.
3. The open space must be well maintained. (A scheme is being examined whereby local areas will pay special taxes, according to the situation, for their own open space maintenance.)
4. The layout of the park areas must be imaginative, and must allow for a variety of uses for a variety of age-groups.
5. The apartment areas must be even more closely integrated into the park system.

PROBLEMS OF SELLING THE SCHEME

As it can be well and easily imagined, there were many eyebrows raised and much reaction to the change when the scheme was presented. For the sake of this article, the following problem areas are mentioned in brief:

Lanes.

Western Canada believes in lanes. To have included these eyesores and land wasters in this scheme would have destroyed the cul-de-sac and 'Radburn' layout, and would have completely destroyed the pedestrian vehicular segregation hoped for. The Commission put out a continuing attack on lanes, and it would appear that the program of explanation, although it took a number of years, has finally succeeded.

Garbage collection.

The following are some of the proposals made by the Commission on this subject:

1. The problem of garbage collection by way of the front of the house must be put in perspective and weighed against the considerable social and economic advantages of the scheme.

2. The greater use of gas-fired incinerators, for a City adjacent to the main source of natural gas, would cut down on the amount of garbage to be collected.
3. The screening of garbage cans is a fairly simple matter.
4. More use should be made of polythene or paper disposable garbage bags (this cuts down the time of garbage collection).
5. A strict timing system for garbage collection should be adopted if garbage had to be placed in front of each property, (although it was not admitted that the placing of garbage on the curb-side was necessary).

Storm-water surface drainage.

The ground around the house is usually graded away from the foundation; and, therefore, it was claimed that lanes act as natural drainage areas. This was countered by the following:

1. Many lanes existing in the City do not act as a drainage area.
2. The open space areas would provide more efficient drainage areas than lanes.
3. Where possible, the entire residential parcel should be graded towards the street.

Utility services.

The servicing of the area as proposed is cheaper than in the usual grid pattern. The following aspects are worthy of note:

1. Careful consideration has been given to lining up cul-de-sacs, easements and open spaces to provide a continuous line across the super-blocks to facilitate planning of utility lines.
2. It has been found possible to keep soil drains more or less straight, and to loop all water mains without considering each cul-de-sac as a "dead-leg".
3. The north-south lines provided by the major roads and open spaces have allowed the easy lateral laying of drains—particularly, storm sewers.

Street and house numbering.

The complaint at the elimination of grid reference has been systematically dealt with by the evolving of a street-naming and numbering policy. Basically, roads are designated according to their function, all road names in one area are related by an identifying idea, route boards are located in the neighbourhood centre, and street maps of the City proposed.

Standard home designs.

In the case of a street-and-lane type of subdivision, living rooms are usually faced onto the street. In this neighbourhood, it would seem sensible to reverse the living room aspect towards the open space. If this were done, many of the standard plans would be unsuitable. However many brochures carry a number of house plans which could be turned either way. For example, in the C.M.H.C. "small-house design" manual about fifty percent of the house plans adapt easily to this "reverse aspect" type layout.

Layout.

Many objectors criticized the layout for these three main reasons:

1. Adjacent existing property will be depreciated.
2. There will be no place for children to play.
3. This idea is too new.

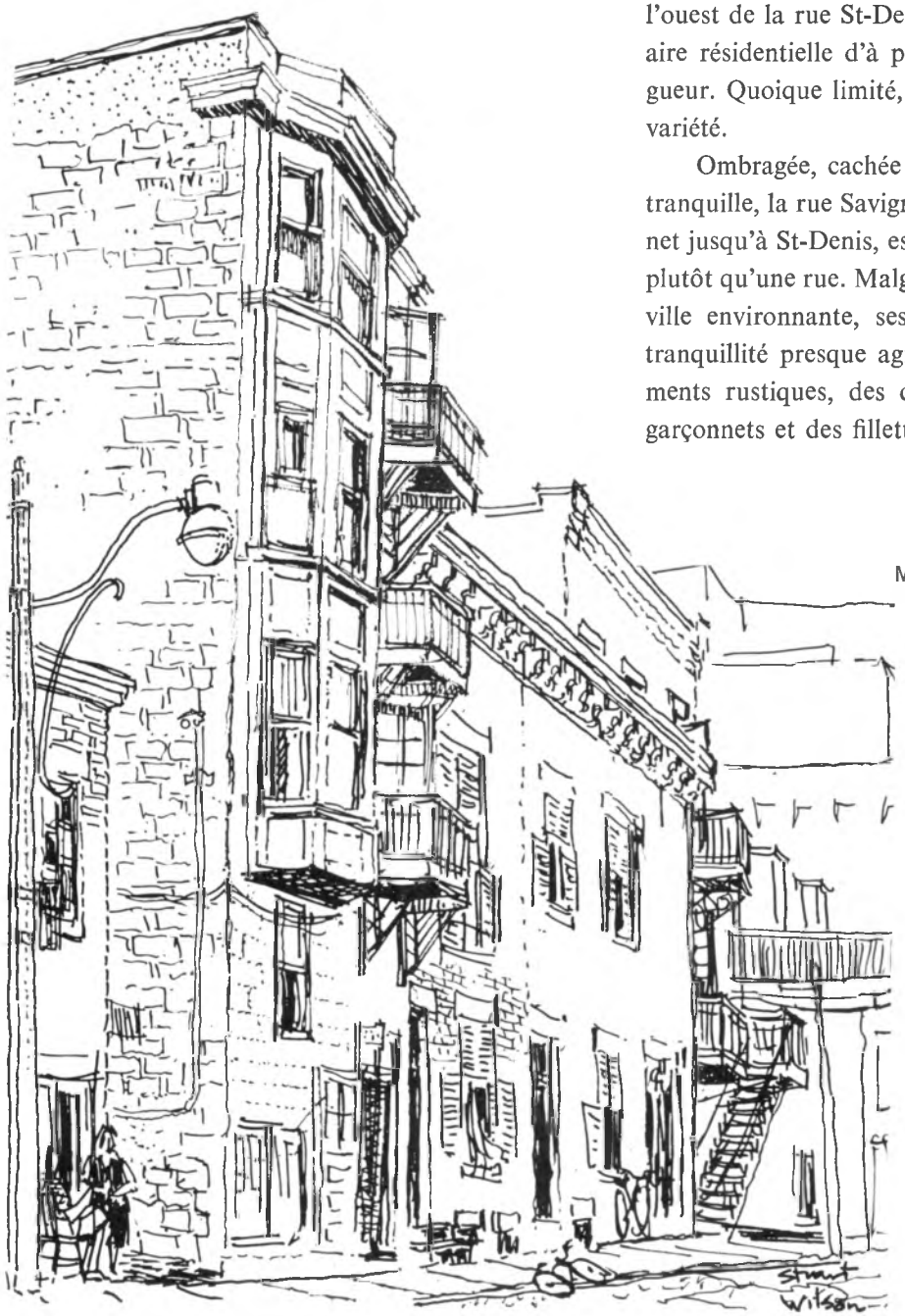
Two objectives are easily disposed of by argument. It is the emotion against change that is persistent and damaging. The concept of improved residential environment, and this scheme is only a very small beginning, must be sold and sold well by municipalities, responsible builders and realtors, and planning commissions alike.

The Oldman River Regional Planning Commission proposals will mean much to the City of Lethbridge and should point the way to improved standards of urban development in a city already known for its attractiveness. ✦✦✦

S. J. Clarke is one of the first class of graduates from the five-year planning course at the University of Durham, England. His experience has included the production of a county and municipal plan in East Anglia, England, work on current planning and comprehensive redevelopment in London, England, and regional and municipal planning in one of Alberta's regional planning commissions. He was Director of the Oldman River Regional Planning Commission from 1957 to 1964; and he is now Director of Development Operations in the Department of Development, City of Toronto.

Les rues Savignac et Christin, à Montréal

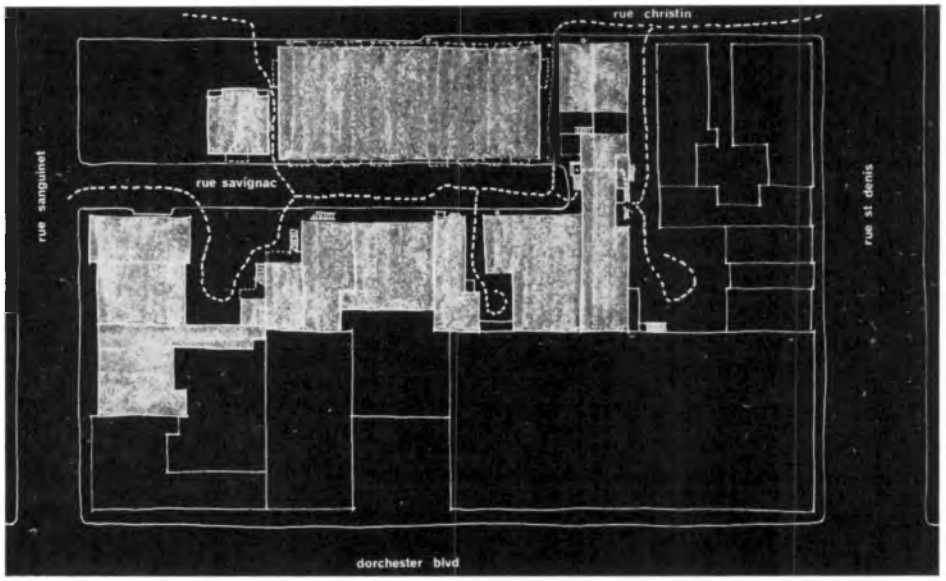
par MM. Stuart Wilson et Bruce Anderson



Le secteur à prédominance canadienne-française, situé au sud de la trépidante rue Ste-Catherine et à l'ouest de la rue St-Denis, à Montréal, renferme une aire résidentielle d'à peine deux cents pieds de longueur. Quoique limité, cet espace offre beaucoup de variété.

Ombragée, cachée de la vue et raisonnablement tranquille, la rue Savignac, qui s'étend depuis Sanguinet jusqu'à St-Denis, est une "ruelle" ou "une place" plutôt qu'une rue. Malgré les bruits et la tension de la ville environnante, ses habitants y jouissent d'une tranquillité presque agreste. On y aperçoit des bâtiments rustiques, des chats de toutes couleurs, des garçonnets et des fillettes, des tournesols et des pas-

MM. Wilson et Anderson donnent des cours à l'Ecole d'architecture de l'Université McGill.



sages mystérieux.

Le côté sud de la rue est bordé de maisons de deux à trois étages, qui ne semblent pas appartenir au milieu et dont les façades rectilignes sont parées de boiserie ornementale ou de fer forgé; on y remarque aussi un immeuble d'appartements de quatre étages avec fenêtres en baie et d'apparence ancienne et maussade.

Un vieillard se berce paisiblement devant une porte de couleur bleu vif qui donne sur une cour ombragée. Des femmes curieuses, grosses ou minces, s'accoudent aux matelas qu'elles éventent tout en regardant par les fenêtres.

Du côté nord et remplissant presque l'espace entre la rue Savignac et la rue Christin, on peut apercevoir l'une des plus anciennes maisons d'appartements en béton armé qui aient été construites à Montréal. Situé tout près des trottoirs, ce bâtiment fait face aux deux rues en question.

L'un des résidants les plus âgés de cette rue, qui habite encore l'étage au-dessus de l'épicerie située à l'angle des rues Sanguinet et Savignac, dit se souvenir que cette maison d'appartements en béton a été construite vers 1910.

La rue Christin qui relie aujourd'hui les rues St-Denis et Sanguinet était autrefois un cul-de-sac et portait le nom de Place Christin. Ce nom évoque l'usine d'embouteillage d'eaux gazeuses, la Maison J. Christin Limitée, dont l'emplacement se trouvait dans cette rue. Fondée en l'année 1855, cette maison d'affaires a été la première usine du genre à Montréal.

En 1929, la Maison Christin a présenté une requête à la ville de Montréal en vue de faire changer le nom de la petite rue connue alors sous le nom de Ste-Julie, appellation qui de leur avis n'ajoutait aucun lustre à leurs affaires.

On avait attribué le nom de Ste-Julie à cette rue en 1877 pour remplacer celui de rue Charlotte, petite rue alors fréquentée par les marins de toutes les mers du monde, qui se situait entre les rues St-Dominique et St-Constant (aujourd'hui de Bullion).

La ville projetait de relier cette courte rue au cul-de-sac qui donne sur la rue St-Denis. Ce projet n'a jamais été réalisé. Les plaques indicatrices sont demeurées sur la rue Charlotte, de sorte que le nom de Ste-Julie ne désignait plus que la rue sans issue qui donne sur la rue St-Denis.

En raison des soins et du beau travail qu'on a apportés à sa construction, cet immeuble de béton armé a sans doute été une résidence chic à l'époque.

Le style de cet immeuble finement détaillé avec sa charpente de béton aux lignes souples et audacieuses et ses formes symétriquement cintrées, s'inspire des premiers exemples de constructions sem-

blables en béton armé réalisées en Europe et ressemble aux maisons d'appartements de l'art nouveau à Paris.

L'immeuble renferme soixante-neuf appartements. Les personnes de race latine qui en occupent les logements de une à deux chambres contribuent à créer dans le secteur une atmosphère sud-européenne.

La charpente est en mauvais état. Les murs de béton sont lézardés et l'armature en acier rouillé est visible en certains endroits.

Les balcons construits en dalles minces de béton et entourés de balustrades de fer léger s'appuient sur des arcs-boutants de béton en forme de doucine. On a atténué l'apparence des ouvertures de fenêtres de trois dimensions en y remplaçant les châssis de bois installés à l'origine par des fenêtres d'aluminium presque affleurées.

Les fenêtres en baie, les panneaux de charpente, les arcs-boutants des balcons et les rampes brisent la monotonie des lignes verticales de la façade en lui donnant du mouvement et du relief.

Des passages étroits de chaque côté de l'immeuble d'appartements relient les rues Savignac et Christin, contribuant ainsi à rendre encore plus complexe la circulation des piétons. Derrière la porte de la petite maison marquée du numéro 370, située au bout de la place, il y a un passage qui conduit à une autre porte donnant sur une cour et une ruelle qui débouchent sur la rue Christin. ✦✦✦

PHOTOGRAPHS BY THE AUTHOR

Camera on the Caribbean

A second visit to Barbados, a first look at some other famous tropical isles by F. F. Field, Director, Information Division, CMHC.

Once visited, Barbados beckons invitingly to the vacationer to return, again and again.

Yet there are scores of West Indian islands to be explored—each with its own characteristics and individual charm. It is an adventure made easy today by modern air transport.

So with a month of leisure ahead, a modest "island-hopping" holiday was planned. It was a happy thought.

Five jet hours out of the cold and snow and bitter March winds of Montreal . . . and there was Antigua under blue skies and a warm sun, its shores lapped by multi-colored tropical seas.

ANTIGUA

Antigua (pronounced Ant*ee*ga) is a small island of 108 square miles. It is round in shape and 14 miles in diameter. The terrain undulates gently; unlike many of the other islands, there are no high mountains or jungle fastnesses.

Tilled and settled for more than three hundred years, Antigua has emerged from nineteenth century poverty and stagnation into an era of genteel affluence, which its population of 55,000 appears to accept almost with indifference. The change has been brought about largely by the lucrative tourist trade, with a helping hand from improved markets for sugar and its by-products and the famous sea-island cotton.

Named by Columbus on his second voyage in 1493 as "Isla de Santa Maria la Antigua", after an ancient church in Seville, Antigua was recognized in 1667 as a British possession after a turbulent history involving several other nations and the Carib Indians.

Capital of Antigua is St. Johns, an incongruous mixture of the old and the new, its buildings clustered around its own magnificent harbor.

Spotlessly clean, smiling daughter of native Antiguan family poses willingly beside her father's modest home. Thatched roof is neither typical nor exceptional.

Nelson's Dockyard, a secret base for the British Navy in colonial days. Photo shows Admiral's House, now a museum containing eighteenth century records and exhibits. Ceremony to mark restoration of dockyard was held on November 14, 1961.

Just an hour south by air and in sharp contrast to the relative domesticity of Antigua is Dominica—a dramatically beautiful, wild, primitive island of rain forests, sulphur springs and lush tropical vegetation.

Arrival by air on Dominica—which is well off the beaten tourist track—is in itself an experience. The small 14-passenger aircraft descends grudgingly through cloud-shrouded mountains to the one tiny airstrip—jungle encroaching on three sides—that finally disappears into the sea. Then comes a hair-raising drive of 35 miles through the forest over a narrow, ever rising or descending road, punctuated by frequent corkscrew curves, to the west coast, with its cocoanut palms, gay flowers and black sand beaches.

The last stronghold of the once proud and fierce Carib Indians—many of whom now live on a remote reserve—Dominica is 291 square miles in area. Population is about 60,000, of whom only 100 are white.

Often known as the "fruit basket" of the Caribbean, the island produces an almost endless list of foodstuffs, including bananas, oranges, grapefruit, cocoa, coffee, ginger, cocoanuts, vanilla, mango, breadfruit and limes.

Capital of Dominica is Roseau, an untidy, unattractive community, with only the Botanical Gardens and the comparatively new homes of civic leaders and professional men on a towering bluff overlooking the town offering any relief. The other main centre is Portsmouth, on the northwest coast, while the village of Soufrière languishes in the past at the extreme southern tip of the island.

DOMINICA

Magnificent Java Fig tree in Roseau's famed Botanical Gardens. Gardens suffered severe damage from hurricane that swept through many West Indian islands in October, 1963.

Banana Day! Hundreds of native Dominican girls head-tote plastic-wrapped banana hands along jetty from warehouse. Wages: one cent (BWI) per hand. Bananas are transferred to lighters and then to cargo vessel at anchor in center background.

Main thoroughfare through Roseau, capital of Dominica, to Soufrière and Scott's Head on extreme southern tip of island. Pumice is principal ingredient of paving material.

Downtown Fort-de-France. At extreme right, famous Hotel l'Imperatrice, across from plaza on which stands statue to Empress Josephine, who was born in Martinique.

MARTINIQUE

Another short hop and . . . Martinique, as proudly French as France herself and birthplace of Rose Josephine Tascher, who was to become Empress Josephine.

And brooding over the island, Mont Pelée, which erupted as recently as 1902 with tragic consequences.

A large island of 450 square miles in the heart of the Lesser Antilles, Martinique has a population of some 266,000. Like Antigua and Barbados, its economy is based largely on sugar, although much of its arable acreage is devoted to pineapples and bananas. It boasts a vast array of flowers, ranging from the magenta bougainvillea to orchids of all hues.

Capital of Martinique is Fort-de-France, a jaunty, gay and attractive city of 65,000. Fort-de-France, founded in 1673, lies on the northern shore of the largest bay that pierces the island from the Caribbean side. During the nineteenth century, wharves and a drydock were built and the city has grown to be the chief port and business centre of Martinique.

A centre of attraction is the broad plaza, or savane, around which many of the town's fine buildings cluster. In the centre of the plaza is a statue of Josephine.

A few miles up the coast is the new town of St-Pierre, risen from the ruins left in the wake of Mont Pelée's eruption. On that May day in 1902, population of St-Pierre was 45,000.

Moments later, there was only one survivor—a convicted Negro criminal jailed deep in an underground vault. Today, the new town of St-Pierre houses 30,000 persons, with only a few stark stone walls and the Volcanic Museum left as reminders of that grim event.

The visitor to Fort-de-France is well advised to brush up on his or her French, for little English is spoken—even in the larger stores of Fort-de-France. The other problem for the tourist is the currency—or currencies. Both old and new francs are still widely used, while Canadian and United States dollars are welcomed; even the British West Indies dollar is acceptable by some.

St-Pierre, Martinique, with Mont Pelée looming ominously in background. Mont Pelée erupted in 1902 wiping out entire town of 45,000. Only one man—a felon in prison—survived.

Rococo library in Fort-de-France. Library was named in memory of Victor Schoelcher, a reformer whose agitation led to emancipation of Martinique's slaves.

Below, picturesque fishing village on west coast of Martinique, mid-way between Fort-de-France and St-Pierre.

In March, 1963, this old building on Broad Street, Bridgetown was sold. A year later (below) the structure has been demolished and a modern new store is well on its way to completion.

Model home at Carricanna Beach Club, St. James, Barbados. Owned jointly by Canadian and Barbadian interests, development will ultimately comprise 400 houses with all the amenities for tropical living.

BARBADOS

Finally, Barbados . . . with its many happy memories of a year earlier and an opportunity to re-visit favorite haunts, renew acquaintances and meet new friends.

But, although the warm sun, the blue-green sea and the refreshing trade winds are unchanged, Barbados is not the same. On all sides, there are signs of progress. For Barbados is on the move, spurred by the interest of Canadian, American and British commercial enterprises; by the demand for sugar, molasses and rum; by the ever-growing influx of tourists.

Poverty and wealth still live side by side but one gets the impression poverty is beginning to lose out.

The metamorphosis is particularly apparent in Bridgetown, where one Canadian bank is already erecting a fine new building on Broad Street and another closed a deal in March, 1964 to buy a choice property, presently the home of Goddard's famous verandah.

And up the St. James coast is the new Carricanna Beach Club, a resort and residential development owned jointly by Canadian and Barbadian interests. Here are being built 400 homes, a shopping centre, beach club, golf course and five swimming pools, the houses for sale on a 10-year agreement-for-sale basis to those who wish ultimately to retire in Barbados.

Then, too soon, March ends. There is a last swim in the sea before breakfast, the take-off from Seawell Airport in a noon temperature of 88 and, a few hours later, Montreal again with the thermometer registering 28 degrees!

Voici le dernier de trois articles.

Boutiques et centre communautaire. Ragsved, Stockholm.
Arch.: Ahlstrom, Bryde et Ostrom

Standards de l'habitat Suédois

par Serge Carreau

Disons d'une façon générale que le logement, relativement petit en majorité, ne présente rien d'exceptionnel sur le plan fonctionnement, mais qu'il a un très haut standard sur le plan technique.

Les nouvelles normes publiées par la Commission Royale de l'Habitation, il y a quelques années, pour la planification du logis, marquent une étape importante dans l'amélioration des standards. Sur le plan fonctionnement, des recherches intenses ont été effectuées en vue de faciliter le travail de la ménagère dans le soin de la maison, la préparation des repas et la surveillance des enfants. Des normes strictes ont été établies pour le fonctionnement de la cuisine, des pièces de service, lavoir et salle de bain, et des espaces de rangement, ainsi que leur relation avec les autres pièces. Techniquement, la cuisine est étudiée soigneusement pour que chaque petit coin soit bien utilisé et que tous les accessoires donnent leur plein rendement. Pour les autres pièces, il n'y a rien d'exceptionnel, sauf quelques expériences qui ont été tentées ici et là pour donner beaucoup de flexibilité au logement; à mesure que la famille qui l'habite grandit et évolue, ces logis peuvent s'adapter à cette évolution, du moins pour le nombre et la grandeur des chambres à coucher.

Mais en général, le logis suédois fonctionne plus ou moins bien, et cela en raison de sa petitesse, puisqu'il arrive souvent que des pièces servent à une autre fin que celle qui leur était destinée, ou servent à double

emploi. Les Suédois, je veux dire les autorités, réalisèrent enfin que, quelle que soit la valeur de l'architecture intérieure de ces appartements, et quel que soit leur nombre, ils conduisent à la promiscuité et à la désintégration de la famille, s'ils sont trop restreints. Les nouvelles normes édictées pour la grandeur minima des pièces dénotent une amélioration sur les prescriptions précédentes. Il va sans dire qu'elles soulevèrent des protestations, et, provoquant une hausse du coût de la construction, furent très mal acceptées par les politiciens, déjà acculés au pied du mur par la part énorme de l'habitation au budget national. Mais ces normes sont sûrement plus propices à l'épanouissement de la famille et permettent aux architectes une plus grande liberté dans la création des intérieurs; elles dépassent—ce qui en soi ne veut pas dire grand chose—les normes canadiennes. Qu'on les compare à l'aide du tableau suivant:

Surfaces minima des pièces principales

	Pièce de séjour	*Chambre à coucher principale*	*Cuisine et salle à dîner*
Suède.....	220 pi. car.	130 pi. car.	120 pi. car.
Canada.....	150 pi. car.	110 pi. car.	90 pi. car.

Parmi les autres normes, il y en a deux qui méritent une attention spéciale. La première affecte à la fois l'orientation et le fonctionnement du logement: c'est à propos de l'ensoleillement. Rappelons que la latitude de Stockholm correspond à celle au milieu de la Baie d'Hudson. Et, si la présence du Gulf Stream et l'absence de communication directe avec l'Océan Arctique permettent de comparer le climat—plus précisément la température moyenne—avec celui du Canada, on oublie trop souvent que la situation nordique de la Suède influence la durée de l'ensoleillement et l'incidence des rayons solaires. Ainsi, à la fin de décembre, Stockholm ne connaît que 5 ou 6 heures de jour, et les rayons solaires sont tellement pâles et horizontaux qu'il est difficile de concevoir ce phénomène pour qui ne l'a jamais vu. Par contre, à la fin de juin, c'est la nuit qui ne dure que quelques heures, et n'arrive même pas à être tout à fait noire. Il n'est pas difficile de comprendre dès lors pourquoi, dans un pays aux hivers si sombres, la législation de l'habitation impose un minimum d'heures d'ensoleillement—calculé selon une formule compliquée tenant compte des heures du jour et des saisons de l'année. Ce minimum consiste en 5 heures en moyenne, pour un appartement dont l'orientation est unique; 4 heures en moyenne, s'il s'agit d'un appartement à deux orientations.

La deuxième norme importante, et quelle différence avec le Canada, concerne l'isolation acoustique des logements, isolation des bruits des voisins et des bruits des espaces de circulation. Chaque logement doit être séparé du voisin par un mur de maçonnerie pleine d'au moins 8 pouces d'épaisseur et il est recommandé que chaque entrée ait double porte pour étouffer les bruits de circulation. Ce facteur, isolation acoustique, est considéré à juste titre comme nécessaire pour permettre à la famille de se retourner sur elle-même, de retrouver le calme et vivre sa propre vie sans avoir à supporter les bruits de la famille voisine.

Avant de parler des standards techniques, il faudrait mentionner que les Suédois ont un sens évolué de la propriété collective. Ils ne considèrent pas les normes comme des lois fastidieuses à contourner si possible, mais comme des directives dont l'on reconnaît le bien-fondé, en vue de la qualité et du confort des logis, et de la satisfaction du public. Evidemment, cela n'est peut-être pas étranger au fait que la plus grande partie de la construction domiciliaire se trouve sous l'effet de la socialisation. Mais, il reste qu'en Suède, la qualité a un prestige rare. Ne pouvant se signaler sur le marché international par la quantité de ses produits, ce petit pays, à population restreinte—est parvenu à s'imposer, par leur qualité supérieure. Et le souci de la qualité est constant, partagé par tous, lieu-commun de la réclame et de la conversation quotidienne.

La construction résidentielle ne fait pas exception: on peut dire qu'elle est digne de la qualité suédoise. Les artisans suédois ne sont pas seulement d'habiles ouvriers capables de tours de force, mais ils mettent leur intelligence à comprendre ce qu'on leur demande et leur application à le réaliser avec précision. On retrouve cette qualité supérieure spéciale-

ment dans les détails de "finition", les boiseries, mais aussi dans la fabrication précise des éléments structuraux. Fait intéressant, en Suède les architectes ne font pas la surveillance des travaux, et tout est laissé à la bonne volonté de l'entrepreneur et des ouvriers. On peut se demander ce que cela donnerait au Canada . . .

La solidité et la durabilité sont aussi des qualités de l'habitation suédoise. Même si les structures de béton ou de maçonnerie pleine (murs portants) sont plus coûteuses, on les substitue à la structure de bois, même pour les maisons en rangée et pour les appartements en rangée.

Le gouvernement a intensifié les recherches pour accélérer la construction et en réduire le coût, sans toutefois en altérer la qualité. C'est ainsi qu'on est venu à une plus grande utilisation de matériaux standards, à la construction modulaire et enfin, à la préfabrication. Pour les matériaux standards, les revêtements à petites unités ont été remplacés par des revêtements à grande surface requérant un minimum de "finition", comme le béton léger "Ytong". Ainsi, après plusieurs années de recherches et d'expérience, plus de 12% de la construction résidentielle se fait selon des méthodes de préfabrication, de la simple villa aux immeubles de rapport. Le grand avantage de cette méthode est de transformer un chantier de construction en une vaste chaîne de montage, où chaque élément s'ajoute au précédent dans un temps record. . . . De plus, le travail de "finition" est réduit au minimum. D'ailleurs, les unités préfabriquées telles qu'escaliers, balcons, accessoires de cuisine et de chambre de bain, armoires et garde-robes ne sont pas seulement utilisées pour les constructions entièrement préfabriquées, mais aussi pour la construction traditionnelle.

L'EXPRESSION ARCHITECTURALE

Trouvons-nous dans l'architecture résidentielle suédoise—qui constitue la plus grande partie de l'architecture contemporaine de ce pays—ce sens inné de la forme et de l'harmonie des couleurs qu'on est venu à associer au nom des pays nordiques, à cause de leurs réalisations supérieures dans le domaine de la décoration et de l'esthétique industrielle?

Si on excepte certaines expériences particulièrement intéressantes, l'expression architecturale de l'habitation suédoise n'a rien de transcendant en général, mais elle a beaucoup d'harmonie et d'unité. Et, elle ne choque jamais, ce qui prend une signification particulière quand on pense à la construction domiciliaire qui se fait en Amérique, où on croit compenser la monotonie des formes par une multiplicité de matériaux baroques et d'ornements gratuits. . . . La sobriété des matériaux de revêtement, le stuc et le béton léger en général, parfois la brique, permet d'utiliser la couleur comme élément de vie et de gaieté. Les taches vives fournies par les éléments secondaires, balcons, portes, auvents, se détachent sur le revêtement quelquefois neutre ou gris, mais souvent dans les gammes allant du beige orangé au brun. On arrive par la variété de ces teintes à donner un rythme à des séries d'immeubles et plus d'individualité à chacun.

Mais, et c'est là un point distinctif, on sent la prédominance du rôle social de l'habitation chez les architectes suédois. Alors que partout dans le monde, "l'Esprit nouveau" proclamait l'esthétique comme nouvelle approche à l'architecture contemporaine, les Suédois lui reconnaissaient bien une certaine importance, mais ils accordaient la primauté au nouveau rôle social de l'architecture. Ils estimaient que: l'aspect esthétique est limité dans le temps; un style fait une époque, puis disparaît, mais l'aspect sociologique, tendant vers une meilleure forme d'habitation, de meilleures conditions de vie, n'est pas limité dans le temps, mais s'insère dans le dynamisme de l'histoire.

Des enquêtes sociologiques cherchant à connaître les modalités et les raisons des préférences des gens, guident et corroborent le travail des architectes en vue de répondre premièrement aux besoins matériels et aux conditions sociales du peuple. Alors qu'ailleurs dans le monde, l'architecture contemporaine est plutôt un culte vénéré par une poignée de personnes, elle est en Suède l'expression du peuple. Oui, c'est possible, si, dans l'intérêt de la collectivité—fût-ce parfois au détriment de l'individu—l'Etat, s'appuyant sur la fonction sociale de l'architecture, établit des contrôles stricts sur tout ce qui se construit. L'architecture, en

Immeubles-tours à cinq étages.
Vallingby, Stockholm.

Un exemple de maisons collectives
en rangée à trois étages
bien intégrées au site.
Sodra Biskopsgarden, Gothenburg.
Arch.: Erik et Tore Ahlsen.

Maisons collectives en rangée
Nockebyhov, Stockholm.
Arch.: Backstrom et Reinus.

tant que création individuelle et libre, cède alors le pas à la planification urbaine, qui voit d'abord l'ensemble et l'harmonie. Serait-ce la raison pour laquelle les villes suédoises n'offrent pas le spectacle des villes de l'Amérique du Nord?

Les conditions dans lesquelles cette architecture a pris naissance n'ont pas toujours été favorables à son plein épanouissement. Cette espèce de socialisme de l'architecture a engendré aussi des défauts, qui ne sont pas nécessairement sous la responsabilité des architectes. L'architecture, résidentielle comme le reste, est trop réservée. Le régime social, inconvénient, inhérent à sa forme, inhibe l'activité créatrice des architectes par tous ses bureaux de contrôle: on doit demander une permission pour peindre son perron, dix pour le réparer et cinquante pour construire un édifice. Il y a tellement de bureaucratie qu'on n'est pas porté à innover. Mais, les architectes suédois ne sont pas non plus exemptés des caractéristiques nationales: réserve, flegme, attachement à la tradition. Autant le Suédois de la rue tente de se confondre au type par excellence du Suédois, autant l'architecte tente de confondre son oeuvre à un tout commun à la Suède. De plus, la construction domiciliaire durant la période d'après-guerre a été assujettie à des conditions économiques extrêmement strictes. Les efforts pour diminuer le coût de la production et une certaine incohérence de la politique de prêt, le tout amplifié par l'urgence de la production, ont largement contribué à diminuer la qualité des matériaux de revêtement et d'autre part à créer une architecture de répétition, où le même type d'appartement, la même forme, la même façade se retrouvent de banlieue en banlieue. Dans certains cas, il est regrettable de ne voir surgir que des immeubles en hauteur dans de grandes étendues de terrain où, sûrement, il aurait été possible de diversifier l'architecture et de réduire la densité, surtout lorsqu'il s'agit de villes de moyenne grandeur. Dans d'autres cas, les ensembles architecturaux sont malheureusement compromis par la juxtaposition d'éléments intéressants, nouveaux, rafraîchis, et d'éléments banals, communs à toute l'architecture résidentielle et dénués de toute imagination.

DIVERSES FORMES D'HABITATION

Même si le gouvernement suédois a largement favorisé la forme d'habitation communautaire parce que cette dernière permet de réaliser plus facilement et plus rapidement les buts de sa politique sociale et économique en cette matière, il n'en demeure pas moins que le peuple suédois a toujours semblé historiquement préférer, à la forme individuelle, la forme communautaire à cause de ses services collectifs, dont ils tirent pleinement profit. Le peuple suédois est un peuple de locataires, un peu comme les Montréalais; ce n'est qu'une infime partie qui a le privilège de posséder sa propre maison.

Ainsi, bien qu'au cours des dernières années la construction domiciliaire unifamiliale ou bifamiliale ait connu un regain de popularité, elle ne dépasse pas encore 30% (y compris les maisons en rangée), alors qu'au Canada, elle atteint à peu près 70% de toute la production domiciliaire. Ce phénomène n'est pas seulement particulier aux grandes villes; il se rencontre dans toutes les villes, surtout celles qui ont eu une expansion importante depuis la fin de la première guerre mondiale. L'application de la politique d'habitation du gouvernement a eu pour effet de mettre un terme au "champignonnement" des cités-jardins, et de fait à la construction résidentielle unifamiliale, qui avait connu une certaine vogue au début du siècle. Cela ne signifie pas que l'Etat ait pratiqué une discrimination systématique envers ce secteur, mais comme les investissements étaient limités et que tous les efforts furent plutôt dirigés vers la forme communautaire, le coût de la production de maisons unifamiliales augmenta considérablement et, malgré la disponibilité de prêts gouvernementaux, beaucoup de Suédois se virent obligés d'abandonner cette forme d'habitation individuelle pour la forme d'habitation communautaire. Et cela, même dans les villes de moyenne grandeur où, économiquement et socialement, la première forme aurait pu subsister.

Comme compromis entre la forme individuelle et la forme collective à haute densité, la maison collective en rangée, à trois étages, domine la construction domiciliaire durant les années '30 et '40. Le nouveau fonctionnalisme de l'architecture des an-

nées '30, qui mettait l'accent sur la portée sociale, l'urbanisation rationnelle et l'économie de la construction, trouva aussi son expression la plus naturelle dans cette nouvelle forme. Cette forme est limitée à trois étages pour éviter l'installation d'ascenseurs et pour permettre aux familles qui ont des enfants d'avoir un meilleur contact avec le sol. Verticale, c'est-à-dire limitée à deux ou trois logis par étage pour chaque entrée, elle donne beaucoup d'intimité aux familles et une double orientation des pièces. Cette forme d'habitation a permis la formation de nouvelles communautés, viables socialement et économiquement; mais la répétition effrénée de ces unités et le manque d'imagination et de variété dans l'expression architecturale ouvrirent la porte aux critiques et au mécontentement. Le paysage des nouvelles banlieues devenait des répétitions monotones de rangées de ces maisons.

Vers 1950, pressés d'un côté par les critiques acerbes soulevées contre la maison collective en rangée et d'un autre côté par une politique économique plus stricte, les architectes, pour diversifier l'habitat, optèrent pour une forme d'habitation plus dense, permettant une meilleure utilisation du sol. L'immeuble de rapport commença à pointer un peu partout dans les nouvelles banlieues, à un point tel qu'on parle actuellement d'une épidémie de ce type. L'architecture des années '50 a produit une foule d'expériences dans ce domaine. La forme immeuble-tour, de plan carré ou triangulaire, en forme d'Y ou d'éventail, s'est avérée la plus intéressante et la plus adéquate. Sur le plan technique, la tour permet une bonne économie dans l'érection des fondations (les terrains étant très accidentés en général); elle facilite l'usage de la préfabrication; sur le plan architectural et fonctionnel, elle permet une meilleure orientation des appartements et une meilleure disposition des pièces, confère plus d'intimité au logis, et réduit

Ensemble d'habitations collectives, appelé "hôtel familial" avec ses différentes formes de logements, restaurant, boutiques, garderies, salles de réunion, etc.

Maisons unifamiliales en rangée. Vallingby, Stockholm.
Arch.: Carl-Ivan Ringmar

considérablement l'espace des circulations.

Mais la grande nouveauté, dans cette forme d'habitation, c'est l'immeuble-appartement à services collectifs, selon le principe des unités d'habitation de Le Corbusier, mais expérimenté en Suède bien avant ces dernières. La "maison collective"—c'est son nom officiel—a été créée pour faciliter la vie des couples dont l'époux et l'épouse travaillent à l'extérieur. La femme a pris de l'importance dans le marché du travail, et il est ici naturel qu'elle quitte le foyer pour accomplir un travail rémunérateur. La "maison collective" est conçue de façon à suppléer le travail de la ménagère. Les repas peuvent être pris en commun, dans un restaurant situé au rez-de-chaussée, avec communication intérieure, ou commandés à ce même restaurant; les enfants peuvent être laissés dans les garderies et les écoles maternelles; un service semblable au service d'hôtel est à la disposition des locataires pour l'entretien. Enfin, la maison collective offre souvent d'autres services, tels que salles de réunion et de réception, salles-à-manger, lavoirs, etc. Depuis quelques années, cette forme s'est étendue aux maisons d'étudiants, célibataires ou mariés, dont la condition permet difficilement la vie traditionnelle des ménages.

Pour les Suédois, la maison de rapport n'est pas nouvelle. Au contraire, c'est un retour à une forme très familière des grandes villes. En effet, le centre de Stockholm et d'autres villes est constitué uniquement de maisons de rapport de 6 à 10 étages, donnant une très forte densité de population, entre 250 et 350 personnes à l'acre. Pour faire accepter le retour de cette forme déjà traditionnelle aux yeux des Suédois, il fallait que ces nouvelles maisons de rapport offrent beaucoup de qualités et présentent une amélioration importante sur l'ancienne forme. Des séries de recherches ont été entreprises en vue de résoudre les problèmes soulevés par la protection contre le feu, l'adaptation de tels logis pour les familles comprenant de jeunes enfants, l'efficacité et la rapidité des circulations, ascenseurs et escaliers, enfin, le coût de construction et la valeur immobilière dans l'avenir.

Des enquêtes sociales très élaborées ont révélé qu'en général les familles qui habitent ces maisons de rapport en sont assez satisfaites, bien que les familles avec des enfants de moins de six ans marquent une préférence pour les premiers étages, si ce n'est la maison en rangée. Enfin, deux raisons majeures semblent plaider la cause de ces immeubles: premièrement, le fait que ce type, à cause de sa grande densité, a permis

la création de grands espaces verts et l'élaboration de services collectifs et deuxièmement, le fait que la famille suédoise possède souvent un chalet de campagne où elle se retire l'été; elle accepte donc facilement de ne pas avoir son jardin particulier, d'autant plus que le climat est peu favorable à la vie extérieure.

Il reste que c'est vraiment dans la maison en rangée (terrace houses) unifamiliale et bifamiliale que les architectes suédois ont déployé le plus de talent créateur et de fantaisie. Quelques exemples intéressants datent de 1935, mais c'est à partir de 1954 que cette forme acquit le plus de popularité et reçut un meilleur support de la part du gouvernement. Equilibrant la composition architecturale des nouveaux centres résidentiels, elle apporte une nouvelle variation dans les formes d'habitation, et permet aux familles qui veulent posséder leur propre maison de participer à la vie de ces centres. On évite de plus la dispersion de banlieues étalées.

Peut-être moins contraints que dans les autres types de maisons, parce que ce type est surtout développé par l'entreprise privée et par les petites coopératives, les architectes ont réussi à diversifier, non seulement les styles de chaque groupe de maisons, mais aussi et peut-être surtout, la disposition respective des maisons et des éléments naturels ou de services. Ils utilisent pour cela au maximum les possibilités des sites accidentés et rocailleux le plus souvent, évitant la monotonie des "super-blocs" en demeurant à une échelle plus humaine.

COLLABORATION À L'HABITATION MODERNE

Lorsqu'on cherche à caractériser la contribution suédoise à l'habitat contemporain, ce n'est pas la beauté transcendante de l'architecture comme telle qui puisse être donnée comme caractéristique générale, même si l'ensemble est de bon goût et qu'on trouve quelques réussites. Mais il faut chercher l'apport original et constant de la Suède dans l'urbanisme en général et dans l'intégration de l'habitation dans un environnement propice à l'évolution de la vie moderne.

Si l'architecture suédoise a mis l'accent sur l'amélioration sociale et technique de l'habitat, l'urbanisme de son côté a prôné les impératifs de la Charte d'Athènes: "Espace, Nature, Soleil", et cela, en s'éloignant le plus possible de l'idéologie de la cité-jardin. Il suffit de se promener dans ces nouveaux centres communautaires pour voir comment la lumière et le soleil jouent un rôle important dans l'orientation et la disposition des différents éléments, comment la nature et l'espace permettent à ces masses de béton et de brique de respirer, de s'isoler les unes des autres et de se distinguer.

Mais l'urbanisme suédois ne s'arrête pas simplement à ces trois impératifs; il va plus loin, en tendant à s'adapter à la vie moderne. La Commission Nationale de l'Urbanisme a accepté des principes généraux servant de guide à tout nouveau développement:

1. Planification de l'espace
avec une place importante à la nature.

L'intégration des différents éléments architecturaux au site et l'aménagement de l'espace extérieur ont pris une part très importante dans l'élaboration architecturale de ces nouveaux centres. Bénéficiant d'une nature exceptionnelle (surtout si l'on compare aux sites canadiens, souvent plats): terrains très accidentés, parties de roc à découvert en de multiples endroits, arbres en grande quantité, souvent lacs et cours d'eau en vue, sinon à proximité, les architectes suédois exploitent au maximum cette nature pour créer un environnement intéressant où les familles peuvent jouir du contact quotidien avec cette richesse. Conservant le plus possible les éléments naturels, ils les développent en parcs, promenades et terrains de jeu et s'en servent pour isoler les immeubles les uns des autres et donner à chaque unité sa propre identité. La nature devient ce tampon si nécessaire pour que l'homme puisse se retrouver, oublier quelque peu le rythme effarant de la vie urbaine. N'est-ce pas réconfortant, au sortir de la gare de métro, de traverser un parc, suivre un petit sentier jusqu'à son domicile? La nature a permis aux architectes suédois de ramener ces super-centres domiciliaires à une échelle plus humaine.

2. Séparation des piétons et des véhicules-moteurs.

Mais cette nature, les architectes suédois l'ont assujettie et mise à la disposition de l'homme. L'homme à la sortie du métro, à la descente de son automobile, devient un piéton; l'enfant, lui, doit pouvoir se dé-

placer, courir, jouer sans danger. C'est pourquoi le piéton et les véhicules motorisés ont chacun leur système de voies. Un réseau de chemins pour piétons, longés de voies pour bicyclettes, permettent à l'enfant de ce rendre à l'école ou au parc en toute sécurité; de même la mère, vers le centre d'approvisionnement et de récréation. Le piéton a sa place, il est à l'aise dans ces communautés.

Pour ce qui concerne la circulation des véhicules-moteurs, les artères à grande circulation sont nettement différenciées des artères de service, de sorte qu'aucune voie rapide ou dense ne traverse une zone résidentielle. De plus, les quartiers résidentiels sont développés de façon à ce que même les voies de service n'entrent pas en conflit avec la circulation des piétons. Les immeubles font face d'un côté aux terrains de stationnement et à ces artères; de l'autre, aux voies de piétons et aux jardins. Les entrées sont souvent placées du côté jardin ou cour intérieure pour éviter que les enfants aient un contact trop direct avec les rues.

3. Intégration à l'ensemble d'un centre commercial, culturel et récréatif ainsi que les services de transport en commun.

Mais, et c'est là l'autre grande qualité de ces nouveaux îlots d'habitations, et peut-être l'aspect le plus important de toute l'architecture résidentielle suédoise, ces centres ne sont pas conçus seulement comme des machines à habiter, mais comme des petites communautés relativement complètes. Autour de la station de métro—ou autre forme de transport en commun—se groupent d'abord les différents services, magasins, cinéma, églises, écoles, centre communautaire,—puis, les divers types de logements s'étendent concentriquement autour de ce noyau vital dans un ordre hiérarchique correspondant à leurs diverses fonctions. Tout d'abord, près du centre, se trouvent les immeubles de rapport et les appartements en rangée de trois ou quatre étages. Puis, il y a une ceinture verte, qui sert d'espace de récréation autant pour les enfants que pour les adultes et qui séparent les différentes unités entre elles. Ordinairement, tout cela tient dans un cercle de 1,500 pi. de rayon. Enfin, à la périphérie, on retrouve les maisons en rangée, souvent développées elles-mêmes en petites cellules communautaires secondaires, avec les magasins les plus nécessaires et quelques services collectifs, buanderie, garage, salle de réunions, etc. C'est aussi à la périphérie que se trouvent les habitations unifamiliales détachées, lorsqu'il y en a.

Tout de même, ces nouvelles banlieues ne constituent pas par elles-mêmes des villes-satellites; elles restent des cellules communautaires à l'intérieur d'une grande ville, à laquelle elles sont reliées étroitement par un système de transport très efficace et par des voies à circulation rapide. C'est la planification de l'expansion qui a permis de prévoir les systèmes de communication qui rattachent les nouveaux îlots à l'ensemble.

D'un façon générale, les principaux, problèmes de l'urbanisme actuel sont la conciliation d'une densité suffisante de population avec la présence de la nature —large ouverture du paysage, espaces libres pour le jeu, distance suffisante entre les immeubles, éléments naturels intégrés;— la conciliation encore de la sécurité du piéton avec la commodité de l'automobiliste—larges voies de circulation, espaces de stationnement pour un nombre grandissant d'automobiles. De la solution de ces problèmes dépend un environnement sain et heureux. Il y a tellement de facteurs à considérer: les éléments eux-mêmes, leurs proportions respectives, leur disposition respective, une différenciation nette des fonctions.

Il y a déjà longtemps que les architectes suédois sont conscients de tout cela, et cherchent des solutions. Leurs réalisations ont des défauts, mais peuvent, je crois, être considérées comme un apport positif à l'habitat contemporain. ✦✦✦

Bachelier ès arts du collège Saint-Laurent en 1956, M. Serge Carreau obtint son diplôme de l'Ecole d'Architecture de Montréal en mai 1962. L'année précédente, en 1961, il gagna l'une des bourses annuelles offertes par la Société centrale d'hypothèques et de logement aux étudiants en architecture. Boursier de l'Association des Architectes de la province de Québec et de la Société centrale d'hypothèques et de logement, M. Carreau se trouve présentement en Suède où il a entrepris une étude sur l'habitation de ce pays.

HOUSING TRENDS IN EUROPE — A Seminar in Prague

by H. Brian Dickens

In April of this year I was privileged to visit Czechoslovakia in order to attend a United Nations Seminar on "Changes in the Building Industry". The Seminar was arranged by the Committee on Housing, Building and Planning of the Economic Commission for Europe, established by the United Nations in 1947 to assist with the tremendous task of reconstruction facing Europe after the war. The main purpose of the Seminar was to review current trends in house building in Europe and to consider the changes taking place within the industry and their effect upon productivity.

The conference was held in Prague, the beautiful capital city of Czechoslovakia, located on the banks of the Vltava (Moldau) River. Founded in the thirteenth century, it now has a population of one million people. The Seminar meetings took place in the Old Town Hall located in the oldest section of the city (Staré Mêsto). This notable building, linked closely with the early history of Prague, was constructed in 1338 and has been renovated several times since, most recently after damage by fire in the revolution of May 1945.

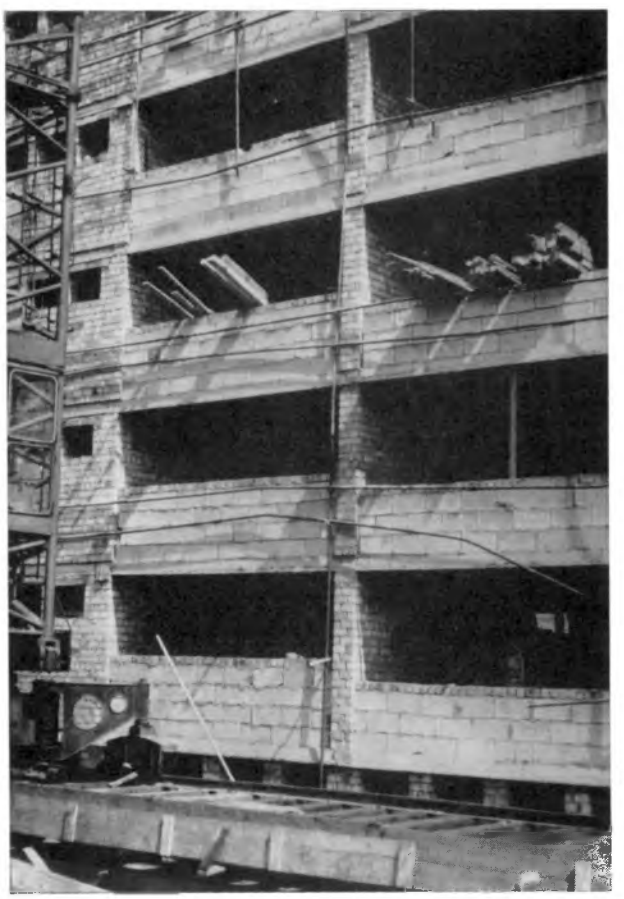
The Seminar was attended by over 100 representatives from 26 countries, and from international groups of which European countries, both East and West, predominated. Representatives like myself from non-European countries attended as observers, although in practice this distinction was largely theoretical and we were permitted to participate fully in all discussions.

The conference began on 20 April and encompassed eight days of intensive discussion organized around the following four topics:

(1) The Structure of the Industry and the Development Process;
(2) The Changing Patterns of Relationships Between Members of the Building Team;
(3) The Problems of Continuity of Demand and of Production; and
(4) Evolution of the Traditional and Industrialized Sectors of the Industry.

National monographs on each country's building industry formed the basis of discussion and analytical reports were prepared on each topic by a representative from Eastern Europe and one from the West.

In this way the conference undertook a broad and critical review of the developments within the building industry in each of the European countries. Each nation was asked to consider carefully the changes that were taking place and to speak frankly about its achievements and its problems. The ensuing discussions emphasized the seriousness of the present housing shortage in Europe and provided a unique opportunity to compare the efforts of the various governments in their search for solutions. The main features of the conference form the background for the dis-



Brick and brick-block construction with in situ concrete floors. (Czechoslovakia)

Figure 1

cussion of housing trends in Europe that follows.

INDUSTRIALIZED BUILDING

Although the conference theme was "Changes in the Structure of the Building Industry", it might well have been called "Industrialized Building". The great impetus given the application of industrial engineering methods to building and particularly to housing since the war is creating the significant changes in the building process that were the main subject of discussion in Prague. Nowhere are these changes more evident than in Europe where so-called "system building" has received considerable attention in recent years as a means of increasing productivity.

One of the most lasting impressions of the conference was this tremendous emphasis on industrialized building. There is an important reason for this. Although the building industries of most European countries are currently working at full capacity, house production in many cases is still from five to ten years behind the demand. It was reported that in some of the early-developed countries as much as one-half the total construction labour force is engaged on repairs and maintenance of old houses. Recent studies of building needs in England indicate that there are at present one million slum dwellings and 2,700,000 substandard dwellings in that country; the output of the industry must increase by more than 50 per cent in the next ten years if the demand for buildings for both social and economic purposes is to be met. There is widely held opinion that only the introduction of industrialized methods will accomplish this, although it was soon evident in Prague that there are quite different views on how this can best be achieved or what it encompasses.

To some the term "industrialized building" suggests a simple choice between two kinds of building, "traditional" or "non-traditional". To others it means the application of modern industrial methods to all phases of the building process, including preparation, planning and execution. This latter was referred to as the rationalization of building, which in an economic sense has been defined as the reform of an industry by eliminating waste in labour, time and materials. As such, the term could apply equally well to traditional or system building, because the determining factor is the way in which construction is organized and carried out and not the construction method itself. As one member put it, a well-organized contractor using traditional building methods can often perform more economically than a poorly-organized one who uses more advanced methods. The construction method, on the other hand, may well affect the degree to which rationalization can be achieved and this is the main reason for the developing interest in system building.

Figure 2 Concrete frames with brick-block partitions and outer wall panels. (Czechoslovakia)

DEVELOPMENT OF SYSTEM BUILDING

System building, it was thought at Prague, permits more effective use of mechanization and prefabrication in construction, with a consequent reduction in labour requirements and an increase in productivity. A major difficulty, however, is that of organizing demand. Producers need to be assured of orders large enough to provide sufficient continuity of production to justify the substantial capital investment involved in providing the necessary plant and organization. A number of systems based on large panel components require orders of 500 to 1,000 repetitive dwellings a year within a radius of about 100 miles for economic production. This explains in part why such system building, although highly developed in some parts of Eastern Europe, is still quite limited in the West. Although all governments are in general agreement that they should accept responsibility for creating the financial and administrative conditions needed to encourage industrialization, they differ considerably in individual approach.

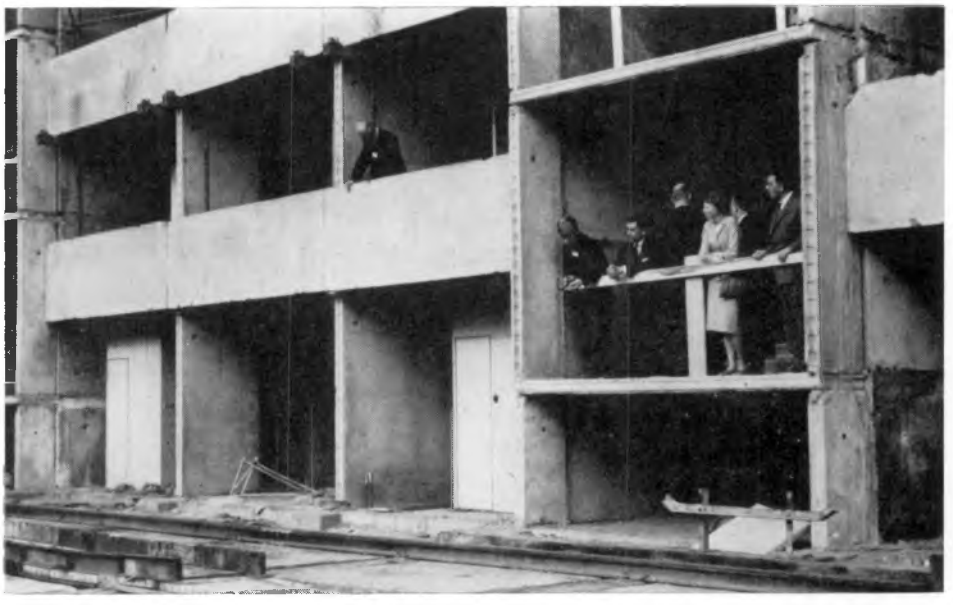
The Eastern European countries, for example, are generally committed to a technology based on heavy concrete panel construction. Probably the most extreme example of this is the production of multi-storey flats in the U.S.S.R.; each flat is made up of a series of concrete boxes, each box factory-fabricated with all interior fittings, services and fixtures, and with floor and wall surfaces completely finished. These units weigh as much as 25 tons and are erected by portal cranes. The total labour content is stated to be 50 per cent less than for traditional construction, although the system apparently requires a degree of uniformity in design that is unlikely to receive acceptance in the West. Other countries in Eastern Europe have not yet reached this stage of development, but all appear to be working towards adoption of the large panel system.

The building industry appears to be at present in an interesting state of transition. In Czechoslovakia one can see under construction buildings representing various stages of evolution ranging from the use of bricks and brick blocks (*Fig. 1*), through precast concrete frames combined with brick blocks and outer wall panels (*Fig. 2*), to transverse bearing walls of both *in situ* and precast concrete with precast floor and outer wall panels erected by tower cranes (*Fig. 3*).

In a new housing development at Mlada Boleslav, a town about 30 miles northeast of Prague where a large Skoda automobile factory is located, construction using the precast concrete frame and panel system was examined (*Fig. 2*). The columns, beams and floor panels were obtained from a central factory, but the non-load-bearing exterior wall panels were made locally in a temporary factory at the site. These particular buildings, which are from four to twelve storeys in height and provide good but modest accommodation, were based on standard plans and built from standard sized elements limited to the following variations: one type of column, four types of beams, ten types of floor panels and nineteen types of exterior wall panels. Bricks and brick blocks were used for the separating interior partitions and all surfaces including panels were liberally treated with plaster to provide a satisfactory standard of finish.

This last aspect is in marked contrast with the approach observed in Sweden in 1963 when it was pointed out that one of the key factors in obtaining economical concrete panel systems is the elimination of site plastering. This is achieved in the Scandinavian systems by using machined steel moulds to produce panel surfaces sufficiently smooth for direct papering or painting. One of the important aspects of any industrialized system is the extent to which it reduces the on-site time of the finishing and servicing trades; in traditional construction this can amount to about one-half of the total.

A further economic consideration is the effect of restricting the available sizes of components in a building in order to reduce production costs. Any savings attained by this means must be balanced against the added costs of over-design that inevitably occur when such units must be used for a wide variety of service conditions. An obvious case occurs with columns in the building just described where only one type of column is produced to support all floors. The extent of standardization achieved by some panel systems is considerable. The "Bison" system, for example,



Cross bearing walls of precast concrete with precast floor and outer wall panels. (Czechoslovakia)

Figure 3

which was developed in Britain using large concrete panels, requires only 21 different components for the construction of tower blocks up to twenty storeys in height.

In Western Europe the development of large concrete panel systems has been generally confined to France and Sweden where they account for about 15 per cent of all housing and are claimed to have achieved increases in productivity of 30 to 40 per cent over traditional methods. In Sweden, where the system of state aid to house building encompasses 95 per cent of the entire housing production, the building industry is organized primarily in large groups. The large contracting firms and the fact that most housing is in the form of blocks of flats or terraced houses has fostered the introduction of system building. Futhermore, the local authorities have been given powers of purchase and sale of land to facilitate comprehensive redevelopment and a regular flow of work adjusted to the capacity of the industry.

In France, where 90 per cent of all house construction is state aided in some form, two major influences have been at work. The first was the stimulus given by direct government encouragement of designers and contractors in the ten years following the war to develop new methods of house construction that would reduce construction labour requirements. The second was the establishment, within the Centre Scientifique et Technique du Bâtiment, of the French "Agrément" system, which provides on a nationally accepted basis a means of assessing the merits of new materials, systems and components.

Somewhat similar to Central Mortgage and Housing Corporation's acceptance procedures for products used in National Housing Act housing, the Agrément system owes its existence to the fact that under French law both architects and contractors have much more clearly defined legal responsibilities for their completed buildings than in this country. Reports of architects and contractors having to pay heavy damages for building failures occur from time to time. In one recent case both architect and contractor were sent to prison for manslaughter on the grounds that an incorrectly installed gas water heater had asphyxiated the occupant of a flat.

This legal situation has led to insurance by the architect and contractor against risks, with the insurance companies relying on the Agrément system for evidence that the structure, materials and components are sound. Approvals are granted for periods of up to three years, and once obtained greatly aid the developer of new building systems in obtaining acceptance by designers, financing institutions and building regulatory bodies. This type of system, which is now being extended to other European countries is considered by many to be an essential feature in accelerating the acceptance of worthwhile innovations in building.

The various conditions outlined have had much to do with development on the Continent of a number of proprietary building systems (known generally by the name of the developer, such as Camus, Coignet, Cauvet, Sectra, Larsen-Nielsen, Ohlsson-Skarne), all of which use concrete as the principal material in

panel form. An example of the last named system is illustrated in *Figures 4, 5, and 6*. Technically they represent a considerable advance in concrete technology, utilizing standard components based on repetitive elements; rapid methods of concrete curing; single-thickness exterior walls of high thermal insulation; and excellent factory finishes both externally and internally.

CLOSED VERSUS OPEN SYSTEMS

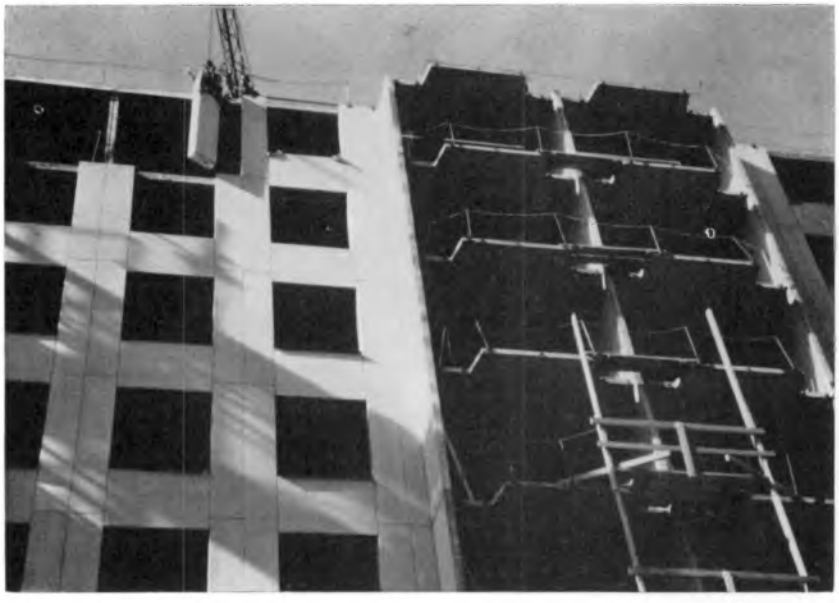
The advances achieved to date have been obtained through the development of so-called closed systems —systems requiring a strict unity of approach throughout the phases of design, fabrication, transport and assembly of components. Some concern has been expressed over the lack of architectural freedom of design that would result from the continued use of such systems, but system building has no monopoly on monotony and the lack of architectural merit in industrially produced housing may well be the fault of the architect rather than the process. Certainly some of the architecture based on these systems is of high quality (*Fig. 7 and 8*), although one can also point to many system buildings that are unattractive (*Fig. 9*), due in part to restriction of plan types. This has led many Western European countries, Britain in particular, to place less emphasis on the large concrete panel systems and to favour instead the development of 'open' systems involving the production of increasingly complex components and elements capable of being assembled in a wide variety of combinations. Such systems, it is thought, would offer the designer a freedom he enjoys at present only with conventional methods and would allow economies of building with standard components.

It is thought that this could best be achieved with a light technology based on metals, plastics and timber rather than on heavy concrete panel construction. Ideally this would lead to the 'catalogue' production by different manufacturers of a wide range of standardized components closely related to one another in terms of dimensions, so that they would be completely interchangeable and require little or no adjustment in site assembly. There are inherent difficulties with this, however, that warrant closer examination.

As a first requirement in this process it is necessary to establish a commonly accepted system of dimensional coordination. The British have attempted this by publishing a guide to "Dimensions and Components for Housing" (*Design Bulletin No. 8, Ministry of Housing and Local Government*), which sets out recommended floor to ceiling heights and suggests a scheme of preferred dimensions for standardizing components to be used when building houses and flats by industrialized methods. The bulletin points out that it is only necessary to control dimensions that affect the relationship between one component and another, and recommends standard sizes for such items as precast staircase flights, wall and floor panels, door frames and windows, and prefabricated service core or 'heart' units.

Much has been said in recent years on the subject of modular coordination and the establishment of 4 in. and 10 cm, respectively, as the basic modules in the English and the metric systems. It is of interest to note the difficulties that arise from treating the 4 in. and 10 cm module as equivalent in establishing standard multiple dimensions for open systems. The small initial differences that exist become much greater and more significant with the larger multiples. The fact that 100 cm is not 40 in. but 39.37 in. and that 40 in. is not 100 cm but 101.60 cm poses serious problems for interchangeable components when they must be manufactured to very close tolerances and advances one further argument for general adoption of the metric system.

How far this 'open' system approach can be carried in practice is difficult to predict. One of the main problems is that the degree of standardization required for fully developed open systems must go far beyond that of dimension alone and must encompass functional as well as dimensional integration of the selected components. This immediately raises important questions about jointing, which is one of the greatest economic and technical difficulties faced by the designer of 'closed' building systems and can prove even more difficult for the more versatile 'open' systems. Not only is structural stability essential, but appearance, weathertightness, thermal properties,



Placing exterior wall panel.
(Ohlsson-Skarne System)

Figure 5

cost and the speed of erection must also be considered in joint design.

The importance of jointing is well illustrated by the fact that in typical concrete panel systems the average flat can comprise about 500 ft. of joint, with labour and materials for this easily amounting to 10 per cent of the cost of the building shell. It is also significant that the most widely used form of joint in these panel systems is an *in situ* concrete connection. Such jointing is not well suited to fast erection, but is used because of its ability to accommodate inaccuracy in panel manufacture and to facilitate the use of reinforcement in the joint to provide structural continuity. The development of dry jointing methods, which will be required if complete interchangeability of components is to be achieved, poses even more difficult problems and presents one of the main technical challenges for the future of such systems.

MODERN EUROPEAN PRACTICE

In the meantime developments in system building in Europe continue to take the form of 'closed' systems. These can be classified broadly into two categories. The first comprises systems for high blocks of flats, which will probably continue to be dominated by precast concrete systems of the type developed on the Continent. The second category encompasses systems suitable for low level buildings of two to four storeys that can give densities intermediate between single family housing and high rise apartments.

There is much questioning in Western Europe today of the sociological effects of high flats and a corresponding interest in the development of systems for low buildings. This is particularly true in Britain, where the government's housing advisers have stated that they do not want to see the proportion of high rise building increase much beyond its present level of 20 per cent of public sector housing, and are actively encouraging development of systems for houses and low rise buildings that can provide densities of 80 to 100 persons per acre.

The problem is a challenging one, particularly when considered in terms of the variety of building plans such systems may be required to fit if the choice of building types now available in countries such as Britain is to be maintained. A point not always recognized is the extent to which some of the Continental countries have relied in the past on a limited choice of plan types for dwellings. This restriction on building type, coupled with the ability to organize demand and consequently to achieve a high degree of technical continuity of production has greatly favoured the development of system building. But when this approach is combined with the centralized planning of Eastern Europe there is a risk of imposing too great a rigidity on design.

This was very apparent in Czechoslovakia where the development of system building follows a prescribed pattern. The period between the first experimental stage and the actual construction of buildings is at least five years. The first stage is devoted to research and study. Next comes the experimental design and construction of structures to confirm the findings of research. The third stage is the preparation of a series of standard designs that will become the

Exterior wall panel of foamed concrete and 4 inches of Polystyrene insulation and left, (Fig. 4) a nine-storey apartment near Stockholm—both using Ohlsson-Skarne System.

Figure 6

approved types for a given period. Finally, dwellings are constructed according to these types. The whole process demands considerable foresight and places a high degree of responsibility on all concerned, because the designs, once approved, are built in great numbers throughout the country.

The Western European countries, on the other hand,—notably Britain—have greater flexibility in their approach to design production and assembly, but they have difficulty in organizing the demand required for economic production. In Britain today there are over 250 systems already existing or in the course of development. With so many available it is difficult for any one of them to obtain the continuity of orders required and the over-all effect is to keep costs up, so that full economic advantage of system construction is not realized.

One possible solution, which allows standardization and still permits competition is to encourage the development of what might be called partially 'open' systems within which a range of components or elemental designs are established and from which a variety of plan types, elevation treatments, and building groupings can be achieved. An interesting example of this type of development has been under way in England for school buildings within the group known as CLASP (*Consortium of Local Authorities Special Program*).

CLASP comprises a group of local authorities who studied the detailed requirements for schools in order to develop systems suitable for their combined needs based on common dimensional standards and the bulk ordering of such standardized components as columns, beams, wall units, windows and heating systems. Each of the authorities retains an architect to design individual schools, but the standard components for all are ordered from a central point to obtain the economies of mass production and bulk buying. By this system erection times were reduced 20 per cent over traditional construction and costs lowered 10 per cent on the national average for primary schools.

The CLASP system approach is now being encouraged by the British Government for housing, and a number of housing authorities have formed consortia to develop and use industrialized systems of this type. In this way the 'component approach' or the design and fabrication of components that can be used to provide more flexibility in building systems is making some headway.

A similar attempt, and one that may point the way to use of the system building concept under market conditions in North America, is the SCSD program (*School Construction Systems Development*) now under way in California. In this program thirteen school districts agreed to commit a substantial part of their school building program to a professional team who have developed a building system designed around

an integrated group of construction components. The team first prepared performance type specifications that met the educator's requirements yet left the component fabricators some freedom for innovation. It encouraged product manufacturers to participate in the project, reviewed their preliminary designs and finally recommended consortia of manufacturers whose designs seemed most compatible.

To be really effective this method should be confined to buildings with the same functional requirements. Schools are an obvious choice. The mass housing market is another possibility, and it may well be that some such approach should be adopted, at least for the one million public housing units that will be required according to Professor Murray, in his recent report, "Good Housing for Canadians," between now and 1980 if our burgeoning low income housing needs are to be met.

WHAT OF THE FUTURE

Whether this approach and the general philosophy of system building will receive wider acceptance is difficult to predict. One of the main problems is coordination of client demand. As was seen in Prague, system building has made its greatest advances in areas of strong government participation where demand, and thus continuity of production, can be well organized. Even in countries such as Britain where government is taking a much more active and direct role in building than it does in this country (though less than in many Continental countries) it has proved difficult.

Another important consideration is the effect of industrialized systems on the existing pattern of relationships between members of the building team. What changes are required in the present roles of these members to realize the full advantages of industrialized systems? The Prague Seminar spent much time considering this aspect and suggested that one of the basic needs was for improved communication within the industry. This is made particularly acute by the trend towards more specialized production and the growing number of specialized contractors and is likely to prove an increasing problem n future building whether systems are used or no t.

Figure 7

Many consider that the most urgent need for improved communication is between the designer and the builder, because the architect's traditional role as client's representative does not lead to a close relationship between design and production. One method of achieving this is to include the builder in the team at the design stage by means of the negotiated contract. This has the advantage of making his technical experience available when vital decisions are being made and this type of contract is receiving increasing acceptance among architects and clients in Europe. An alternative approach is the so-called 'package deal', where the contractor employs the architect and offers design services combined with construction.

Both methods can be questioned on the grounds that they interfere with the customary approach to competitive tendering. Regardless of the approach, however, designers need to be provided with more systematic knowledge of construction methods and wherever possible the design, manufacture and

System Building for high and low blocks can be varied and attractive . . . *Figure 8*

. . . it can also be plain and institutionalized.

Figure 9

assembly of building components should be more closely integrated if industrial systems are to make their maximum contribution. Combined with this must be a careful and continuing analysis of user requirements.

It is worth noting that in most other industries the innovators are the professionals responsible for the ultimate performance of the end product. In construction the opposite is true. The professional practitioner is often too small to support the necessary research and such innovations as do occur are generally initiated by product manufacturers working alone. There is room for a more coordinated approach and one of the conference recommendations affecting market economy countries was that government groups concerned with research and design should be allowed, and indeed encouraged, to participate actively in development programs. In this connection it was recognized that the pace of development depends to a great extent on the time lag between research and

its application, and this in turn is conditioned by the efficiency of transmission of knowledge and by the availability of information. The value of such international organizations as the International Council for Building Research Studies and Documentation (CIB) as a continuing source of objective and balanced information was stressed throughout the conference discussions.

We must not lose sight of the fact that industrialized building, as was stated in the introduction to this paper, is much more than system building, and includes in its most complete sense the application of industrial methods to all phases of the building process, whether traditional or non-traditional. Industrialization is characterized in both cases by a shift from manual work to machines, from work on site to work in factories, and from piece production to serial production; perhaps most important of all, it is characterized by a high degree of organization of the building process.

The development of wood frame construction in Canada illustrates the considerable gains in productivity that can be achieved by the industrialization of traditional methods. The man-hour requirements of a typical frame dwelling, excluding foundations, have been reduced from 1200 or more to as low as 600 by organizing the entire process around plant assembly of the basic shell (*see, Prefabrication in Canadian Housing, by R. E. Platts, National Research Council, Division of Building Research, NRC 7856, March 1964*). The factory portion or 'shop-content' of these typical prefabs, which currently comprise about 15 per cent of Canada's yearly production of single-family dwellings, is only 15 to 30 per cent of total labour, but even this slight shift from the site to the shop has greatly aided in rationalizing the building process.

Much can still be accomplished, as is evident from a recent study of manpower utilization within the Canadian construction industry carried out by Professor Aird of the University of British Columbia and published by the Division of Building Research. The fast-rising demand for housing in Canada (one recent estimate suggests a need for four million additional units by 1980) will make building productivity an even more vital consideration in this country in the years ahead.

Wood frame construction will no doubt continue to receive wide use and will remain a most difficult yardstick of cost and quality against which proposed innovations must be measured. Wood frame construction is not, however, readily amenable to highly mechanized processes, and it may well be challenged by systems favouring optimum machine production, such as those incorporating plastic sandwich components or plastic-bonded wood fibre materials. These have already undergone considerable development and appear quite promising for low buildings. If current trends to multi-family dwellings continue, and particularly if these take the form of high rise construction, we can expect increased interest in concrete panel systems of the type developed in Europe. The future of such systems will depend not only on their ability to provide technical adequacy and satisfactory appearance at reasonable cost, but also, and this is a most important consideration, on the extent to which they are able to overcome local prejudice and outmoded building codes.

Whatever the outcome, there is little doubt that the future will present many challenges and that much benefit can be derived from a continuing exchange of views and experiences. Above all we must not forget that buildings are for people, and we must not allow the technical and organizational problems to overshadow the social implications of what is being done. As Sir Winston Churchill has so aptly pointed out: "We shape our buildings and our buildings shape us."

H. Brian Dickens was born in Toronto, Ontario, and had his early education in England. Following three years of service with the R.C.A.F. from 1942 to 1945, he attended the University of Toronto, graduating in 1950 with the degree of B.Sc. in Civil Engineering. In May of that year, he joined the staff of the Division of Building Research of the National Research Council in Ottawa. He has worked with the Housing Section, apart from a three year period (1957 to 1960) when he was in charge of the Division's Northern studies. Since 1960 he has been Head of the Housing Section and in this capacity he works very closely with the Central Mortgage and Housing Corporation. He is a member of the Association of Professional Engineers of Ontario.

HABITAT is printed in Canada using 10 point Times Roman type by Murray Printing and Gravure Ltd. The 120 screen, copper halftones are by Bomac.

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