

LIVABLE WINTER CITY ASSOCIATION

L'ASSOCIATION POUR L'ANIMATION DES VILLES EN HIVER

N E W S L E T T E R

Association Address:

P.O. Box 1398,
Station "B",
Ottawa, Ont., K1P 3R4

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NEWSLETTER address:

c/o Ms. Xenia Zepic,
Metro Planning Dept.,
The Municipality of Metropolitan Toronto,
City Hall, East Tower, 11th Floor,
Toronto, Ont., M5H 2N1

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Editor, Jack Royle

GO AHEAD FOR INTERNATIONAL FORUM... BUT, ONE YEAR LATER

Response to plans by the City of Edmonton and the Livable Winter City Association for a "Winter Cities" International Forum to be held in Edmonton's new convention centre was sufficiently big and enthusiastic to require substantial enlargement of the concepts, and to make advisable a one-year postponement. Winter Cities '86 International Forum will now be held Feb. 15 to 19, 1986 one year later than originally planned. Co-hosts will be the City of Edmonton, the Canadian Federation of Municipalities and the Livable Winter City Association. A half million dollar budget has been approved and speakers from around the northern world have consented to participate. (See article page 3.)

NEWSLETTER SUBSCRIPTIONS EXTENDED TO MAKE UP FOR MISSED ISSUES...

After publishing four issues in May, August and November, 1983 and January, 1984, with Atmospheric Environment Service generously covering all printing and distribution costs, NEWSLETTER was unable to meet March, May and July, 1984 deadlines due to reasons relating to growing pains of the Livable Winter City Association. With this issue, regular publication is resumed and future issues should appear on schedule six times per year. Existing subscriptions will be extended six months (three issues) to make up for missed issues. Meanwhile, as a matter of convenience since NEWSLETTER has been produced in Toronto, a Toronto mailing address has been established (see above). Correspondence intended for NEWSLETTER may now use this new address.

PLANS FOR NEW CHAPTERS . . .

L.W.C.A. members and supporters in Edmonton and Toronto are discussing forming chapters. Dr. William C. Rogers, Director of the World Affairs Center of University of Minnesota, originator of the "winter city movement" in North America, writes that his group in Minneapolis-St. Paul will begin steps to form a Livable Winter City Association. "Perhaps we could call it the U.S. Livable Winter City Association." Possibly, thinks Bill Rogers, there might soon evolve "An International Livable Winter City Association."

XENIA ZEPIC HEADS TORONTO GROUP . . .

Joan Masterton, climatologist of Atmospheric Environment Service, an active and energetic worker and leader in the L.W.C.A. and a co-founder, finds it necessary to relinquish chairmanship of the Toronto-based committee responsible for organizing the symposium feature of Winter Cities '86 International Forum and arranging for attendance by the speakers. New chairman of the committee is Ms. Xenia Zepic, senior planner and urban designer of Metro Toronto planning department. Ms. Masterton has been assigned new duties in A.E.S., but will continue her personal interest in L.W.C.A.

L.W.C.A. INCORPORATION PROCEDURE NOW COMPLETE . . .

Thanks to persistent effort by Ottawa members, headed by Byron Johnson, L.W.C.A. secretary and Patrick Chen, L.W.C.A. chairman, letters patent have now been granted the association by the Federal Minister of Consumer and Corporate Affairs, formally incorporating the association. Objectives are set out in the incorporation document as follows:

General

To educate the public about the techniques for and benefits of improving the livability of cities with winters.

To undertake pure and applied research to develop techniques for improving the livability of winter cities and to disseminate information of such techniques to the public.

Specific

To promote a positive "frost belt" image and experience through increased public awareness of the advantages of northern climates.

To encourage the adoption of life styles suited to the winter extremes and changes in the weather, to increase the enjoyment and reduce the stress in the daily work and recreational activities especially for the young and elderly;

To encourage the exploration and development of innovative multidisciplinary approaches to design and management of man-made shelters, movement systems, and recreational facilities, in harmony with the natural environment;

To support the livable winter city concept through the exchange of information between interested cities, organizations, governments and citizens.

To support the development and use of data and research related to the weather and climatic conditions and their effects on the living patterns of northern citizens, so that those responsible for the built environment can design buildings, recreational facilities and other amenities that are attractive, comfortable and efficient in all seasons.

WINTER CITIES '86 INTERNATIONAL FORUM NOW PLANNED AS MAJOR WORLD CONFERENCE . . .

In mid-July Edmonton City Council voted full and final approval of a detailed proposal covering "Winter Cities '86 International Forum". Co-hosts with Edmonton will be the Canadian Federation of Municipalities and the LIVABLE WINTER CITY ASSOCIATION. Originally planned to be held in February, 1985 as a modest-sized get-together of northern cities and experts to discuss common problems, it was found necessary to postpone the event when several government departments and agencies and national and provincial associations indicated they wished to participate and needed time to prepare themselves.

In its much-expanded form, the Forum will include four principal segments: a Symposium, a Design Competition, a Trade Fair and Exposition and a Winter Festival and Carnival.

Chief role of the LIVABLE WINTER CITY ASSOCIATION will be to prepare the program for the Symposium. Prof. Norman Pressman of University of Waterloo and Ms. Xenia Zepic of Metro Toronto Planning dept., both active L.W.C.A. members, visited Europe earlier this year to contact and invite speakers from that continent. Contact was also made with Mayor Takeshi Itagaki of Sapporo, Japan, who hosted a "Northern Cities Conference" in 1982 with the intent that he keynote the opening plenary session.

Dates for the event will be Feb. 15 to 19, 1986. A total budget exceeding \$500,000 will be raised through registration fees and government contributions and contributions from corporations which, as co-sponsors, will have input into the program. It is expected more than 1,000 will attend with representation from many northern countries and cities.

An appendix to the proposal lists more than 200 cities in 29 countries that qualify to be designated as "winter cities". Some 600 million people occupy lands with severe climate.

Main theme of the Symposium is given as: "Making Winter Cities Livable," or, "At long last a cure for the common cold." The Symposium sets out to accomplish four major tasks: First, to identify and promote unique opportunities, solutions and technologies which creatively and economically overcome winter city problems; Second, to promote interdisciplinary and comparative perspectives on livability and design in cold climate cities and communities; Third, to facilitate exchange of information regarding research and innovation in the area of cold climate adaptations; Fourth to generate content for a publishable compendium of uniquely northern technology and lifestyle information and possibly trigger other conferences and expositions.

European speakers who have consented to make presentations include Dietrich Garbrecht, Zurich, specialist in pedestrian behavior and problems; Juhani Pallasmaa, Finland, author of philosophical works dealing with northern living; Peter Broberg, Stockholm, designer and builder of an innovative glass-domed residential street; Jarma Mantu, Finland, specialist in northern development; Henning Larsen, Denmark, also a northern specialist; Jouko Mahonen, Finland who has done outstanding work in developing education programs for architecture and planning students involved in northern design.

These and other outstanding European specialists will be joined by a long list of North American and Asiatic designers, authorities and scientists including some of Canada's most prominent architects and planners and innovative engineers and leading thinkers from U.S. and Britain.

Each day of the Forum will commence with a plenary session addressed by one or more keynote speakers. There will follow six concurrent sessions, three each morning and three each afternoon. Rapporteurs will report to the final plenary session on findings of these sessions. Interspersed will be "bear pit" or "show and tell" sessions featuring case studies, and new and different ideas and solutions. Special sessions for mayors and other civic leaders will be held in the afternoons and informal sessions or banquets in the evenings.

Three competitions will be featured: One will invite design proposals for urban public spaces in winter latitudes; A second will be an "Everyman's Idea" competition primarily for citizens of Edmonton with secondary schools expected to provide many entries; A third will be a cold weather clothing exhibit including a fashion show.

A major Trade Fair and Exhibit will feature uniquely northern methods, and construction equipment and materials. Northern housing, road building and specialized technology would be included in the displays.

Finally a major winter Festival would be staged coincident with the Forum. Presently Edmonton has no such winter celebration.

Roland Nogue has been named as full time organizer and co-ordinator. Arni Fullerton, Director of Edmonton's Central Planning and initiator of this world conference, will allocate a proportion of his time to Forum organization and planning. The LIVABLE WINTER CITY ASSOCIATION has established a "Conference Program Committee" in Toronto to assist with planning.

GUEST EDITORIAL

PEOPLE NEEDS TOO OFTEN LOST IN THE SHUFFLE . . . By Val Werier

One would take it for granted that the human dimension would be paramount or at least seriously considered in all planning decisions, but unfortunately such is not the case.

Human needs are often ignored in new developments with disastrous results, particularly in our winter climate. The 34-storey Richardson building, completed in 1969 at the corner of Portage and Main, the intersection synonymous with the City of Winnipeg, illustrates this lack of consideration for people.

The engineers and architects made certain, of course, that the building was structurally sound and durable. But no thought was given as to how the building would affect pedestrians and the environment. Pedestrians were just not included in the scheme of things.

It takes an individual of some fortitude to walk around the Richardson building, or the environs of Portage and Main on a cold winter day. The fierce winds, funnelling at the base of the building, are nicely reinforced by the siting of the high rise. No studies had been made as to how the winds would impact on pedestrians. Today, it is recognized that such assessments are necessary, but they are too often still ignored in developments.

One should not assume that people are given a priority in planning. There are many examples in the physical environment of the disregard of the human spirit. Too frequently suburban shopping centres and supermarkets appear as wastelands of asphalt and concrete.

In Winnipeg there is a bylaw which requires landscaping at shopping centres with parking lots. The standard depends on the vigilance of the city and interest of the community and it hasn't always been adequately enforced. Still, at least there is a requirement to provide some greenery. I have been aghast to observe in my travels through Canada the widespread indifference to landscaping in suburban shopping centres. Creative landscaping would make them more appealing and perhaps provide a windbreak of evergreens, a welcome and attractive feature in our climate.

At a prairie conference of the Canadian Institute of Planners a few months ago, I asked a young municipal land planning officer from the centre of Alberta whether human needs were emphasized in his studies at university. I asked this in view of the hostile, sterile, treeless environment around our motel. He replied in the affirmative.

"But", he added, "If I include social issues in a report on land development to city council, I would be considered an airhead."

It is lamentable indeed that a planning officer may be regarded as a lightweight if he dwells upon the human condition. There are many glaring instances of indifference to human comforts. The sun does not shine in the heart of Calgary -- or in other cities -- because profits take priority over people. Calgary city council rejected a recommendation that highrises be so sited as to allow the sun to penetrate. It was regarded as having a negative impact on the form and size of buildings.

My thesis is that human needs must be taken into account in developments and that such considerations will result in a better "Livable Winter City". This fundamental concept must be kept in mind in any changes planned in the environment of our northern cities.

I agree whole-heartedly with Eberhard H. Zeidler, architect-planner, who stated: "Our solutions for the winter city must always be built around the needs of human beings to enhance their enjoyment of urban life."

(Val Werier is a Winnipeg newspaper columnist, a founding member of the Livable Winter City Association, organizer of a Winnipeg "Winter City " conference, a member of the Canadian Housing Design Council and Manitoba Director of the National Parks Centennial Citizens' Committee Inc..)

NATIONAL STUDENT COMPETITION RATED "EXCELLENT FIRST EFFORT" . . .

L.W.C.A.'s first ever national student competition, held this past year, produced dozens of exciting and innovative schemes and ideas for making northern cities and communities more comfortable, convenient and enjoyable in winter. One hundred and eleven architectural, planning and landscaping students in 13 universities and colleges in four provinces submitted 41 entries, some prepared by teams of up to six students, others by individuals.

Professor Norman Pressman of University of Waterloo Faculty of Urban and Regional Planning came up with the idea for the competition and headed the organizing committee. Other committee members were Xenia Zepic and Jack Royle.

So far as is known to L.W.C.A. officers, no similar "cold climate design" competition has previously been held anywhere in the world.

The competition was declared to be a "fine success" and "excellent first effort" by some competing students and their professors, also by the panel of outstanding judges. Students receiving cash prize awards stated, "This competition has got us thinking...we already have bright new ideas we want to enter in a second competition, if there is one."

Cash prizes, contributed by Hallmark Hotels Ltd., and Canadian National Railways, were presented to winning students at a ceremony May 28 at the theatre in Ontario North Now pavillion at Ontario Place. The presentations were made by Ernest Balmer, president of Hallmark Hotels Ltd. First prize was \$750; second prize \$350 and two equally-rated entries received third prize awards of \$200 each. There were four honorable mentions.

Closing date for entries was Jan. 15. Judging took place April 26 to 28 in a committee room of Toronto City Hall. World-famous designers and planners were among the judges, including: Hans Blumenfeld, lecturer, author and worldwide consultant in urban and regional planning and design; Eberhard H. Zeidler, leading Canadian architect-planner, designer of Eaton Centre, Toronto, Walter C. MacKenzie Health Sciences Centre, Edmonton and numerous other widely-known structures; Guy Gerin-Lajoie, of P.G.L. Architects, Montreal, developer of F.R.P. fiberglass-plastic structural technology and designer of Mirabel Airport and numerous airports, schools and other structures in Arctic regions and in Africa and the Middle East; Walter H. Kehm, prominent landscape architect; Wojciech Wronski, Executive Vice-President, Urban Development Institute, Toronto and members of the organizing committee.

First prize was won by a team of four architecture students from University of Manitoba: Abe Chan of West Vancouver, Jackson Low of Victoria, B.C., Wilson Jung of Edmonton and Heidi Hanson of Kanata, near Ottawa. Declaring that winter should be a time of color, activity, excitement and fun, the entry amply displays these qualities. A score of suggestions are offered and supported with graphic drawings. Signs, houses, all structures should be colored bright and warm rather than gray and white. Winter city pedestrians need extra consideration because of the extra discomfort imposed by snow and cold. Winter parks and playgrounds! Designing for maximum access to sunlight in winter! Flexible transit systems that could change with the seasons! These were some of the ideas put forward.

Second prize went to a team from University of Waterloo Department of Planning. Members were Marlene Swirski, Waterloo; Blair Allen, Jeff Brewitt and Margaret Chan of Metro Toronto; Rob Hardy of Ottawa and Melini Menon of Chatham. Two entries, one from Guelph University, one from York University were rated equal and each was awarded third prize. The Guelph entry presented a modular concept that could be used for a city centre or a neighborhood. York University entry examined York campus and brought forward a plan to re-vamp it into a "Livable Winter Campus". A York University rumor is that this and another similar entry from York have caused the university design and planning staff to reconsider their plans for future development of the campus.

The Guelph University team consisted of: Kerrie Curran, Hagersville, Ont., Paul Carabott, London, Ont., Robert Evans, Thunder Bay and Steven Wimmer, Toronto. York University's winning entry was submitted by: Dino Lombardy, Nnamdi Amrukin, Claude Andre, Lorne Leman, Paulina Mikicich and Robert Russel.

Submissions were received from other Ontario universities, from Nova Scotia, Quebec (in French) and a number of strong contenders from Manitoba.

A number of sponsors contributed to costs of staging the competition. They included, besides the LIVABLE WINTER CITY ASSOCIATION, the University of Waterloo Faculty of Environmental Studies, the School of Urban and Regional Planning at University of Waterloo, the Urban Development Institute, the Canadian Housing Design Council, and the Municipality of Metropolitan Toronto.

Whether another national student "cold-climate-design" competition will be held in future has not been decided.

FEATURE ARTICLE

FERMONT REVISITED-- DESIGN ARCHITECT REVIEWS MODEL TOWN'S PERFORMANCE . . . By Prof. Norbert Schoenauer

Fermont is a new town in Northern Quebec with a population of about 6,000. It was built for the workers and managers of Quebec Cartier Mining Company engaged in the exploitation of the Mount Wright iron ore deposit.

A proposal for the development of a design concept and a capital cost estimate for the construction of this new town was submitted on Dec. 12, 1969 and approved seventeen days later. The initial proposal outlined the following main objectives:

- to provide "a milieu for voluntary social interaction bringing about a lifestyle in harmony with the realities of a sub-Arctic region;"

- to build a community "congruous with its natural environment featuring outdoor spaces with favorable microclimatic conditions facilitating recreation in the open," but also complementing the outdoors "with an artificial environment, a shelter from the inclement weather;"

- to take "advantage of technological achievements to create an exciting and viable place" of residence that would become "a trend setter rather than a follower of outdated traditional planning standards which in spite of their inappropriateness in the North are nevertheless common."

The development of the planning principles and design concepts commenced in January, 1970. Four months later (April 30, 1970), the design concept for the new town was submitted for approval. Construction began in the summer of 1971 and the first resident families of Fermont spent Christmas of 1972 in their new homes. In 1976 the new town site was completed.

To bring about reasonable cooperation with nature, settlement design in the sub-Arctic must respect its special topographic and climatic conditions. This cooperation is not merely desirable, but is essential in a severe climatic region if living conditions are to be pleasant instead of just tolerable. In accordance with these principles, Fermont was planned to occupy a southerly slope where maximum solar radiation could be enjoyed. A windswept hill top was shunned for obvious reasons, and so was a deep valley, because cold air accumulates in low lying areas on calm days and nights.

Since the combined effects of wind and low temperatures create very adverse outdoor living conditions, wind breaks, both in the form of tree belts and a windscreen building, were prominent features of the design concept. Of course, most people suspect that windchill factors in the sub-Arctic region have a greater adverse effect than in the temperate zone, but the magnitude and critical nature of this effect is only understood by those who live in the sub-Arctic. Although in the temperate zone the windchill factor may create great discomfort, it nevertheless cannot be equated with the near unbearable consequences it entails in the North.

Any abatement of the sub-Arctic wind may make the difference whether children and adults can venture outdoors or not. On a recent visit to Fermont, the author observed scores of children playing in the schoolyard in the shelter provided by the windscreen building although temperature stood at -28°C (-18°F).

Other important planning principles entailed the use of a compact urban land use policy, a hierarchical order of vehicular movement with "T" type street intersections only, and a town centre design with a mixed land use embracing educational, recreational, commercial, institutional, and residential accomodation.

Fermont's compact land use resulted in shorter walking and driving distances within the townsite and ensured greater proximity to the natural park-like landscape surrounding the town. The hierarchical vehicular movement pattern was conducive to the design of short streets instead of long straight roads which encourage excessive car speeds and whose alignment, when it coincides with the prevailing wind direction, results in very unpleasant wind tunnels. Finally, the multi-use town centre emerged as the focal point of the community with the optional use of either a climate-controlled interior, or wind-protected exterior pedestrian spine.

The windscreen building is three to five stories high and over one kilometer in length. Being the tallest and largest building in Fermont it naturally dominates its skyline and is visible from a distance when one approaches the town. An initial apprehension that this mega-structure would prove to be unpopular has proved to be unjustified. Quite the contrary -- it is affectionately, rather than derisively, nicknamed "le mur" (the wall) and its presence is perceived as a "big city" feature and an important landmark unmistakably identifying Fermont.

Social Aspects

Resource towns in the north inherently have many socio-economic and demographic characteristics which seem abnormal when compared with those of long established communities further south. First, there is the stigma of a "company town". Second, men are inevitably in the majority, young people predominate and, at best, there is a sprinkling of the elderly. The few old people rarely live alone, but live with close members of their family. There are no old people's homes. Third, many inhabitants view their stay in resource towns as temporary, an attitude confirmed by the absence of cemeteries. The most transient residents of these communities are the single male workers attracted by relatively high wages but who often leave within a year primarily because of loneliness. Fourth, resource towns are usually small communities where there is a tendency to spatial segregation of white-collar and blue-collar workers' homes. Fifth, the trauma of unemployment is less visible since the loss of one's job usually implies that one is forced to leave town. Sixth, isolated and small communities are relatively free of major criminal activities.

Many of these characteristics are intrinsic to resource towns and cannot be modified significantly, but some conditions can be improved as exemplified in Fermont.

Special attention was given in this new town to the interspersation of homes of managerial staff among those of non-managerial employees. In fact, residences of both types of workers are basically of equal dimensions and appointments, the only difference being that the homes of managerial employees usually have a two-car rather than a single garage and often occupy a corner lot, slightly larger than the standard lot.

Perhaps the most important social characteristic of Fermont is that accomodation for unmarried single workers was provided within the windscreen building among married couples with or without children. This arrangement is in contrast to the usual practice of relegating them to barracks at the periphery of the community. The design team felt it logical that single workers live near the amenities of the town centre with ready access to restaurants, movies, library and recreation facilities while avoiding their isolation and relieving their loneliness. Some parents of teen-age daughters attending school in the town centre have criticized this arrangement feeling the young men "hanging around" the indoor public areas have an adverse affect on their children. Whether this problem warrants a return to the previous practice of isolating single workers is doubtful, especially if the new arrangement proves that high turnover of single workers is considerably reduced. Surely extended residency is accompanied by greater identification of place and therefore with greater accountability of social behaviour.

Energy Conservation

Fermont was designed about two years before the energy crisis of 1972. Initially, the source for heating was to be oil with each house having its own oil furnace and the windscreen building as well as adjacent town houses, served by a central heating plant. Despite the fact that statistical decision models favored oil in those low-cost times, electricity was chosen for heating of all the buildings.

This action was taken because electric heating implied no pollution of air by heating furnaces and it seemed absurd to transport oil for thousands of miles to Fermont when electric power was generated nearby. Economic justification for electric heating was based on the reduction of capital costs with the elimination of large furnaces, ductwork and chimneys, and the acceptance of higher maintenance costs much of which was tax deductible. Costs of additional insulation, wisely insisted on by Hydro Quebec, was offset by savings in heating plant installation costs.

The solar orientation of the town and reduction of wind chill by the windscreen building helped to lower heating bills.

The Windscreen Building

This dominant architectural feature of the town provided a climate-controlled interior walkway and wind protected exterior pedestrian spine linking educational, recreational, commercial and institutional establishments and also giving access to the vertical circulation cores serving the apartments above.

The windscreen concept used at Fermont was inspired by Ralph Erskine, a renowned Stockholm architect, who first employed this principle for a new town in Sweden. Fermont has important differences from its Swedish predecessor, for example, the windscreen building accomodates such North American demands as vehicular access to all facilities and services and all buildings.

Salient design features of the windscreen apartment building are as follows: First, living and dining rooms and daytime activity rooms face south or southeast since the predominant sunshine hours are in the morning. Only nighttime occupancy rooms (bedrooms) face north. Second, more than two thirds of the dwelling units have the potential for cross ventilation.

Third, every dwelling unit which has two or more bedrooms has an outdoor extension, a balcony or terrace, each of which faces south or southeast. Fourth, although five stories high, the apartments are served by only two corridors, one at grade and the other at the fourth level, necessitating only two stops for elevator service; the three storey segment of the windscreen building (towards each end) has no elevator service and has only one corridor at grade.

Fifth, to ensure animation of the grade level pedestrian spine as well as to enhance security, the upper corridors are discontinuous, i.e. entrance to adjacent corridors is blocked by a fire escape; the inconvenience of having to descend and ascend again if one visits a friend in a distant segment of the windscreen building is, in fact, similar to what happens in most cities to apartment dwellers, except that in Fermont it is not necessary to go outdoors to go visiting.

Some criticism of multiple housing developments is unavoidable. In spite of the fact that national standards in sound insulation were met in the windscreen building, some tenants felt these standards were inadequate. Poor sound insulation between dwelling units is a frequent source of complaint in most apartment buildings. In isolated communities where there are no masking street noises, and where all neighbors know each other, higher standards of sound insulation are especially important.

There were also complaints about vandalism in the climate-controlled walkways. Graffiti in outdoor urban spaces is normally accepted as a mere nuisance. Moving streets indoors does not seem to prevent graffiti and it can occasionally be found in the windscreen building walkways. A recent visit to the town indicated it is not a widespread practice.

While educational and recreational facilities linked in the windscreen building function as intended, commercial operations have been less successful. A large shopping centre at nearby Labrador City attracts shoppers from Fermont while shops in the windscreen building's mall stand empty. Fermont residents enjoy a fairly high standard of life and most have their own automobiles.

A "Livable Winter City"

From the outset, Fermont was designed to be in harmony with the realities of the Canadian North. Of course, it is not the ultimate design solution, but represents only the beginning of an attempt to build an urban environment in a sub-Arctic region where living conditions are no better than merely tolerable.

Favorable orientation, wind protection, clustering of houses, mixed land use in the town centre and efficient land utilization set this community apart from previous new towns built in similar regions. These planning principles also ensure that Fermont's inhabitants are less restricted in their day-to-day activities in inclement weather than are their counterparts in other sub-Arctic settlements. And, if these characteristics are acknowledged to be valid, Fermont is a "Livable Winter City."

(Prof. Schoenauer of McGill University Faculty of Architecture carried out much of the design and planning of Fermont as a member of Desnoyers and Schoenauer architectural firm. Fermont has been stated to be the most advanced example of cold-climate urban design existing anywhere in the world as a completed project fully in place.)

SWEDISH "GREENHOUSE RESIDENTIAL PROJECTS"
EYE-OPENER FOR L.W.C.A. STUDY MISSION

"We would be pleased to consider giving joint illustrated lecture on our European tour."

By Prof. Norman Pressman and Xenia Zepic

During the first ten days of May, this year, we visited Finland and Sweden as a "core group study mission" for L.W.C.A.

Our objective was to obtain an overview of approaches to policy development, management, planning and urban project designs which are responsive to cold climate environments. We had the cooperation of Architect Juhani Pallasmaa of the Museum of Finnish Architecture, Helsinki, who organized our itinerary throughout Finland, and also of the Swedish Institute in Stockholm which planned our time in Sweden.

Town Planning Departments of Helsinki and Stockholm were visited and discussions took place with architects, planners and policy advisers on the subject of climate-responsive development. Visits were made to new satellite towns around Helsinki -- Tapiola, Kivenlahti and Olari -- as well as to inner city developments near Helsinki harbor. Also visited in Sweden were the School of Architecture and Planning at University of Tampere and recent architectural developments near Tampere. In Sweden we visited newest planned towns -- Akalla, Husby and Kista -- near Stockholm and held discussions with local architects and planners.

We visited Linköping housing project in Sweden, a development designed for special needs of single-parent families, the elderly and young couples. We also visited other projects that were innovative socially as well as structurally, and held meetings with Boris Culjat and Ralph Erskine, trend setting professionals in nordic architecture and planning who are familiar with L.W.C.A. and support its objectives.

Perhaps most innovative and interesting were a series of "greenhouse" residential projects and an entire "neighborhood-under-glass" in the commune of Eslov, Sweden, designed by Architects Peter Broberg and Ann Thulin of Landskrona. A glass-covered pedestrian street is flanked by three-storey apartment buildings and stacked townhouses together with other community-related facilities (e.g. school, community centre, etc.) The purpose of the project was to construct a neighborhood which is closely-knit, energy efficient and requires as little land as possible.

What is significant about this development is that the Atrium concept is being used in conjunction with housing and collective support facilities, whereas in Canada this idea is mainly utilized for large-scale commercial development, such as Eaton Centre, Toronto. Can this suggest a fundamental approach adopted by the Swedes more oriented to human well being than primarily to profit? Surely, such an approach, if successful in Sweden, must have our careful consideration.

Energy savings at the Eslov project are estimated to range between 40 and 85%. Eslov town officials, the State Building Research Council and various industrial organizations are involved. The scheme is constantly monitored to see what lessons can be learned.

Located in an Eslov suburb named Gardsakra, this "city within a city" emphasized communal living, a timely concept since the regional government was concerned about covering good agricultural land with urban development. Sweden has a policy of self-sufficiency in both energy and food.

Gardsakra uses some 30% less land than conventional planning. Energy is saved by the glass-covered street which is a solar collector. Lighting, people's bodies and recovered waste heat also generate warmth. Heat pumps recapture heat from exhaust air and waste water.

Projected street temperatures range from 5° C (41° F) on coldest days to about 30°C (86°F). Louvres in the greenhouse roof frame are controlled by shades and an operating sash in the roof. Wind velocity, temperature, humidity, sun brightness and other weather factors automatically determine the settings of the louvres and sashes. Tropical plants are used within the greenhouse because nordic varieties remain dormant in winter.. Total cost of the entire project was close to \$16,500,000 Canadian.

While in Europe we also took on the task of identifying possible keynote speakers and contributors from the nordic nations for "Winter Cities '86 International Forum". Our success in this venture is indicated in a report on the Forum elsewhere in this issue.

As Canadians, we were extremely well received. Everyone we met expressed interest in our L.W.C.A. activities. It appears no equivalent organization exists in Finland or Sweden at the moment. Finally, it became clear to us that much greater collaboration is required between Canada and such northern countries as Sweden and Finland in climate-oriented project design, urban planning and management and development policies.

Organizations, citizens' groups or educational institutions who would be interested in receiving an illustrated lecture/discussion reviewing our European trip may contact Ms. Xenia Zepic of Metropolitan Toronto Planning Department or Prof. Norman Pressman, School of Urban and Regional Planning, University of Waterloo.

HOUSING AND DESIGN RESPONSES TO THE CANADIAN CLIMATE . . .

By Charles and Joan Simon

(Excerpts from a paper given last month by Toronto architect-planners and L. W.C.A. members Charles and Joan Simon to "8th International Conference on People and Their Physical Surroundings" in West Berlin)

Canada's winter and summer extremes call for a chameleon-like response to the climate. In winter, dwellings should be sheltered, air-tight, super-insulated igloos which optimize penetration of the southern sun. But in summer they want to be airy, well-ventilated and deeply shaded "southern plantation" houses. These dichotomies provide a constant architectural challenge which does not lend itself to stock solutions, cookie-cutter cliches or formalist jargon.

A pioneering concept was Forster House at Guelph, designed before the 1973 energy crunch. A double-glazed greenhouse served as a solar collector, a place in which to grow food, and the major circulation space in the house eliminating corridors. In winter it provides outside living area indoors. Also experimental, an underground home near Toronto provides three thermal zones: living area, bedroom block

and workshop garage. Its hillside location assures good sun penetration in winter.

A passive solar home in Scarborough was a winning design in a Federal Ministry of Housing competition administered by Housing and Urban Development Institute of Canada. This model was calculated to achieve energy savings of 75 % compared with a comparable standard model. The house had large glazed areas in a double-height sunroom built on the rear of the house. Air locks at all entrances controlled cold air infiltration.

At Christian college, Brockville, a 22-unit housing project is, we believe, the largest passive solar housing project in Canada at this time. Sunrooms are provided with each living unit as well as a view of the St. Lawrence river. Covered walkways link college buildings and housing units.

Our plans for small communities in central and Northern Ontario seek to achieve a high level of energy efficiency, curtailment of dependence on automobiles by planning for density, and the use, as much as possible, of measures that are inexpensive or even cost-free.

We have found the technical developments and increasing public and private interest in climatic design principles over the past few years are truly remarkable. On the technical side, the latest projects incorporate not only greatly improved conservation measures, but also solar fractions varying between 45% to as high as 78% are being obtained. In terms of acceptance, government departments, developers, bodies such as HUDAC (now Canadian House Builders' Association) Ontario Hydro, private clients, etc., are all displaying increasing interest in the design of thermally efficient buildings.

Demonstrating that energy issues of the 1980's can be tackled in our northern climate while maintaining environmental quality and creating settings for family life.

WINTER'S TEN COMMANDMENTS

(At meetings addressed by L.W.C.A. speakers, the question is sometimes asked: " You talk much about cities and communities. I happen to live in the country. What can I, as an individual living in the country, do to make my life more comfortable and pleasant in winter? As an answer to this question NEWSWEEKLY editors offer these "Ten Commandments" to see what NEWSWEEKLY readers think of them. Please forward any changes you would suggest, or comments you would make. If "Winter's Ten Commandments" can be sufficiently refined and improved to make them genuinely helpful, we might consider producing them on a poster for display in schools, community halls or elsewhere.)

THOU SHALT take a positive attitude towards winter, longest season for most of Canada, shall appreciate its beauty, exhilaration and enjoyment. After all, winter holds an important key to Canada's unexhausted resources our plentiful living space and promising future.

THOU SHALT teach they children also to respect and enjoy winter.

THOU SHALT get out of doors and enter into winter activities -- shalt buy skates and cross country skis and use them.

THOU SHALT encourage the holding of winter carnivals, skiaramas and similar events and participate in them if possible.

THOU SHALT build a house that takes the reality of winter into account by making it energy efficient and including such features as solar porches, maximum use of glass to the south and southeast and siting of the house on its lot in order to obtain most benefit from the winter sun. If possible, paint your house in warm and gay colors to brighten the winter landscape.

THOU SHALT plant coniferous trees to the north and northwest of your house to provide snow and wind breaks and add color to the winter months. And plant deciduous trees to the south to assist summer cooling.

THOU SHALT dress sensibly and warmly on cold and windy days to reduce discomfort and reduce frostbite.

THOU SHALT select an automobile that is efficient in snow and ice. Automobile manufacturers now offer a wide selection of front-wheel-drive and four-wheel-drive vehicles.

THOU SHALT encourage your club or social group to devote at least one meeting each year to discussion of the importance of the winter season in our lives and what we might do to better adapt to winter and enjoy it more.

THOU SHALT urge your municipal officials to think and plan with all four seasons in mind. Urban or community improvements that "think green" and plan only in terms of summer represent much wasted effort and money.

..... May we have your ideas, criticisms, re these "Ten Commandments?.....

OTTAWA COLLOQUIUM TIMED WITH "WINTERLUDE" WAS SUCCESS
ANOTHER BEING CONSIDERED FOR NEXT FEBRUARY'S "WINTERLUDE" . . .

Missed issues of NEWSLETTER prevented publication of a report on the Livable Winter City Association first colloquium held Feb. 10 and 11 to coincide with Ottawa's annual winter festival "Winterlude". More than 125 attended an evening session to hear an address by Raymond Moriyama, prominent Canadian architect-planner with a special reputation for designs and concepts that are sensitive to human nature and human needs. Saturday morning, Feb. 11, 35 gathered for bull pit sessions to discuss improvements that might be made in big winter cities and in small or resource communities.

Sessions were held at Carleton University. A large proportion of the audience on Friday evening consisted of students. Carl Aass, Planner with National Capital Commission, organized the colloquium with help from Patrick Chen, Byron Johnson, Chris Bradshaw and Sheila Pepper. Timing to coincide with "Winterlude" was done with the encouragement of "Winterlude" organizers who were interested to see whether a "Livable Winter City" colloquium or seminar might be an appropriate new feature to be included in the "Winterlude" activities.

Moriyama's talk consisted of two sections, one dealing with projects his firm has undertaken in which designs carefully provided for the winter needs and problems of users, a second giving his thoughts on the Livable Winter City Association and movement. The latter portion of his talk has so much value for L.W.C.A., and so much requires our thoughtful consideration, NEWSLETTER editors are reserving it to be used as guest editorial and special feature in the next NEWSLETTER issue.

The four projects described by Moriyama were Scarborough Town Centre, Calgary Civic Centre, Buffalo Main Street Mall, the Meewasin Project covering Saskatoon and surrounding area.

Some guiding principles used by Moriyama and his associates in these projects:

Think of the future "both by accretive and linear means". Today's young trees will big trees for the enjoyment of the next generations;

Developing community activity spaces, both indoors and outdoors planned "to give joy, light and a sense of belonging to the individuals;"

Giving a choice to the public whether it chooses to use inside or outside public spaces, or inside or outside walkways and connectors;

Cut moisture migration from inside to outside by creating a "raincoat" of outer skin for large structures, a skin that can be changed in future;

Use heat pumps to conserve energy;

Deemphasizing dependence on the automobile where possible;

"To compact and infold, to share walls where possible, to reduce overall outside surfaces, to share energy and avoid heat loss;

Plan to minimize winter's wind chill and maximize winter sun;

Weather vestibules create a buffer between indoor space and outdoor cold;

Spectacular lighting flags, banners, and signage can be used to give a street or mall a bright and gay image. Such devices are proposed for Buffalo's Main Street Mall;

Carefully consider, and use where possible all available assets. In the case of Saskatoon, it was realized the University of Saskatchewan could make a large contribution to the revamping of that city in order to make it more enjoyable in all seasons. The Meewasin plan envisages several ways in which this can be done.

Next Colloquium

Plans for a second colloquium in Ottawa, again to coincide with February's "Winterlude" were discussed by L.W.C.A. in May. Michel Michaud attended representing "Winterlude" organizers. Byron Johnson consented to act as chairman of the colloquium organizing committee. Two themes were approved: Planning and Animation. Sessions would be held at Ottawa Convention Centre, possibly with an evening dinner at a restaurant overlooking the Rideau canal and its ice sculptures. Several speakers are being considered as possible keynoters in the day-long sessions. Jane Jacobs, author, urbanist was one potential keynoter contacted.