



Livable Winter NEWSLETTER

APRIL 1986

VOL. 4 NO. 2

FORUM 86...THE AWAKENING...THE EUPHORIA



Lawrence Decore

It was the breaking down of age-old barriers, the sudden emergence of unexpected new directions, new hope and new opportunity. "Winter city... winter city...winter city..." The speakers repeated the words again and again. A new phrase had joined the language. What did it mean? Winter cities are something special or at least, different. Winter cities are not like other cities. In gaining acceptance by their own gurus and inhabitants, gathered at Forum 86, winter cities gained some respectability.

Many conventions have a day or two

of hype, greetings, exchanges, feverish activity, then peter out. Not Forum 86; the fever mounted with each day and many were heard to say they had never experienced anything like it. A common remark at the close was: "When can we have another such Forum?"

Northerners found that after sitting in at conventions run by non-northerners for many years and worrying about problems not their own while theirs remained neglected, at last they were talking to others who shared their experiences, at last they were beginning to get some answers.

The final summary said attendees included "406 delegates, speakers, media representatives, United Nations Colloquium representatives and exhibitors from 50 cities (and towns) in 11 countries . . . Participation and interest in the Forum has demonstrated there is a need for a regularly scheduled event of this type."

The Media got the message. Some 47 television and radio stations, newspapers and periodicals, received accreditation. The story was picked up around the world and the echoes are still reverberating.

Many played a role in the success of this first major northern conference. There were hundreds of volunteers, dozens of speakers. But four persons, above others, bore the burden of responsibility for the re-

quired decisions, financing and organization. The event would not have been held without the steady support and participation of Edmonton's genial mayor, Lawrence Decore. The vision and leadership in organization came from Arni Fullerton, heading the Winter Cities Conference Corporation.

As has been noted, women play a strong leadership role in the "winter city movement" and two women had much to do with the success of Forum 86. Mary Cameron, chairman of Winter Cities Conference Corporation Board of Directors assisted powerfully in the organization and presided gracefully and capably at plenary sessions; and Pamela Freeman, vice-president of the Winter Cities Conference Corporation, and a director of the Livable Winter City Association efficiently managed the day to day organization.



Arni Fullerton

How To Go About Setting Up LWCA Chapter

At Winter Cities Forum 86 half a dozen or more towns and cities asked for guidance as to how to go about forming LWCA chapters. With chapters now functioning in Ottawa, Toronto and Edmonton and one

announced to be formed in Scandinavia, LWCA welcomes formation of additional chapters. See article on page 11 for suggestions on how to take the first steps and some of the benefits you will receive.

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TROMSOE EAGER TO HOST WINTER CITIES 90

TROMSOE . . . TROMSOE . . . a city of 48,000 inhabitants located just south of the 70th parallel of north latitude in Northern Norway (some 350 km. north of the Arctic Circle) has spirit, ambition, élan that would do a mighty metropolis proud and is resolutely determined to host Winter Cities Forum 90.

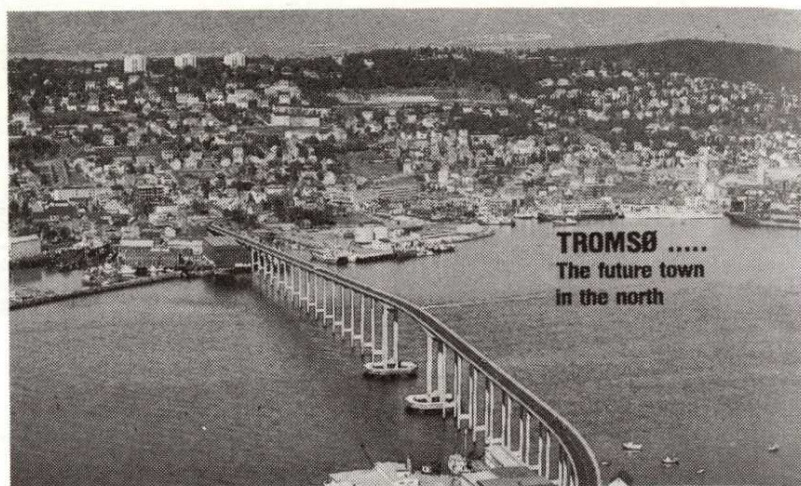
Tromsøe . . . Tromsøe . . . The repeat of the name made the title of a highly professional and quite spectacular multi-media presentation shown several times to packed audiences at Forum 86. The presentation was backed up by a formal delegation that made application to the International Winter Cities Committee for permission to stage the event of 1990.

Prior to Forum 86, there had been no such international committee. But when it became apparent several cities were beginning to make plans to host winter city conferences in the future, it was found necessary to call together those generally regarded as founders of the "winter city movement" to adjudicate on such requests. Members are Arni Fullerton, Edmonton, chairman; Mayor Takeshi Itagaki of Sapporo; Dr. William C. Rogers, Minneapolis; and Jack Royle of LWCA with Mary Cameron serving as alternate for Fullerton and Xenia Zepic LWCA national president as alternate for Royle.

The Tromsøe delegation was headed by Helge Otto Matheson, Development Officer, City of Tromsøe; and also included: Tor Kaasen, of the City of Tromsøe and Mrs. Kaasen; Kurt Knudsen, of the Royal Hotel, Tromsøe; Bjarne Orten, Arne J. Johannesen, Norwegian consul in Edmonton; and David Chocron, who brilliantly conceived and produced the TROMSOE . . . TROMSOE presentation.

Subjects planned for Winter Cities 90 program include: energy, climate and problems associated with annual periods of continual darkness or continual daylight; physiological effect of northern living; culture and ethnicity; housing and architecture, and vegetation.

Announced sponsors include: the Norwegian Foundation, the 3-B



Group, Norwegian Housing Exhibitions, the Norwegian State Housing Bank, Norwegian Architects League, the County of Troms and Tromsøe Town Council.

Events proposed: Exhibition of housing suitable for the northern climate; a Polar night festival; "Built-

In Mountains", a large unusual development project; Medical seminars; Exhibition of fish farming, World Cup down-hill skiing competition and a special presentation of Tromsøe's Northern Lights Planetarium. Other events and program content will be announced.

LIVABLE WINTER NEWSLETTER

VOL. 4 NO. 2, April 1986 Issue

ISSN NO.: 0828-9328

Charitable Donation Registration

Number 0 679 514-21-10

Second Class Mail Registration No. 6952.

LIVABLE WINTER NEWSLETTER is published 6 times per year by Livable Winter City Association, Ste. 301, 250 The Esplanade, Toronto, Ont., M5A 1J2 Tel.: (416) 863-1896

Livable Winter City Association is a nationally incorporated non-profit organization that promotes improved adaptations to and attitudes towards living in northern climates.

Subscription price \$20 per year Canada and U.S.: elsewhere \$25 per year.

Unsolicited contributions and manuscripts welcome. Include self-addressed pre-stamped mailer if return requested. Publishers not responsible for loss or damage of same.

Publisher/Chief Editor, Jack Royle, Ste. 501, 40 Old Mill Rd., Toronto, ON. M8X 1G7 Tel.: (416) 231-1767

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and Patrick Chen, City of Ottawa Planning Branch.

LIGHT MUST COME FROM THE NORTH

Edmonton's Winter Cities Corporation Launches Campaign at Spectacularly Successful Forum 86 For Symbol to be Used by Future Winter Cities Forums

Mary Cameron, Chairman of the Winter Cities Conference Corporation Board of Directors issued a challenge on the final day of Forum 86. She invited northerners to submit designs for a symbol, based on the theme of the northern lights, to be used for future Winter Cities International Forums.

She also officially announced that Forum 86 will be followed by a second much larger conference, again in Edmonton, in 1988. Its official title will be: WINTER CITIES '88 INTERNATIONAL FORUM AND EXPOSITION. She declared:

"The Board of Directors of the Winter Cities Corporation extends a warm invitation for you to return to Edmonton two years from now, to attend the WINTER CITIES '88 INTERNATIONAL FORUM AND EXPOSITION.

"The momentum we have established over the past week will continue to build during the years ahead - the light we have shed on the potential



of the winter city will continue to grow stronger.

"Carry the light with you - then return with it to this major international event, to be held in conjunction with Calgary's XV Olympic Winter Games. Highlight events will include an expanded Winter Cities Forum, the prestigious International 'Meeting of Mayors', and International Urban Design Competition, a world-scale Trade Fair - and an imaginative range of cultural festivities.

CREATE THE LIGHT!

"Light must come from the North" was Mayor Itagaki's challenging theme for the 1975 Sapporo Conference. Now, we challenge you to give this theme shape, form and color - to create 'The Northern Light!'

"Just as the Olympic torch symbolizes a search for excellence, so the 'Northern Light' will stand as a tan-

gible symbol of the shared goal of the world's winter citizens.

"The competition to design this symbol is open to everyone. Let your imagination soar! Your entry may be a drawing, a written description, a scale model. It could involve a laser beam - feature a solar-powered image of a northern bird - or represent the northern lights.

"The 'Northern Light' " will be unveiled during the 1988 Opening Ceremonies. then, for years to come, it will travel to cities around the world as they host the Winter Cities Forums of the Future.'

"Pass the word! When you return home from Winter Cities '86, tell your friends and colleagues about the 'Northern Light' - ask them how they envision this illuminating symbol - involve them in the competition! Then watch for complete information on the competition in future bulletins."

First International Conference on Lightweight Structures

The first International Conference on Lightweight Structures will be held August 24 to 28, 1986 in a major hotel-conference centre in Sydney, Australia. The conference follows on a research program sponsored by the German Research Council and conducted at University of Stuttgart under the direction of Frei Otto a world-known engineer and leader in the technology of lightweight structures.

The prospectus mentions Canada's "work on large climate envelopes, utilising membrane structures ('meta structures') for townships in harsh climates." Arni Fullerton, president of Winter Cities Conference Corporation, Edmonton has been asked

to give a paper based on his work designing membrane domed structures. Other Canadian liaison persons are Prof. Cedric Marsh, Montreal and Vera Straka, Toronto.

The prospectus also cites Australian examples of lightweight structures: "Yulara Tourist Resort, a large new tourist resort and village in Central Australia where membrane structures are used for climate control, and Expo '88, Brisbane, where approximately 30,000 m² of shaderoofing are being built." The Conference is sponsored by Lightweight Structures Research Unit, University of New South Wales. For information write Unisearch Ltd., P.O. Box 1, Kensington NSW, 2033, Australia.

Kudos for Forum

Sir:

The Conference (Winter Cities Forum) was absolutely wonderful. I learned so much and met so many interesting people. It was really a successful event.

Dr. Susan M. Watkins,
Assoc. Prof. Apparel Design
Cornell University, Ithaca, N.Y.

Sir:

Going to the Winter Cities Forum 86 was almost like a religious revival meeting; I felt very much recharged from Edmonton.

Weiming Lu, Executive Director,
Lowertown Redevelopment Corp.,
St. Paul, Minn.

R/UDAT IN EDMONTON —

Take nine hand-picked professionals — planners, architects and other "social engineers" — drawn widely from Canada and U.S. and give them four days to work up and put forward recommendations to help solve problems of winter cities as identified in Edmonton.

This was the challenge handed to Canada's first ever R/UDAT (Regional/Urban Development Assistance Team) immediately following Winter Cities forum 86. R/UDAT teams, chosen by American Institute of Architects, have in the past 18 years prepared reports on some 90 U.S. cities and towns.

The result is an 80-page report that sums up readably and with lively illustrations the current thinking on what needs to be done to make winter cities livable. It is an important addition to the miniscule literature on the subject and should with refinement become a textbook for all "winter city movement" supporters, all architectural schools and geography classes in winter latitude regions.

Copies of the preliminary report may be obtained.

The study broke new ground in several important respects. It was the first time the Royal Architectural Institute of Canada and the American Institute of Architects had worked together on such a venture. It was the first trans-boundary study and one of the first to put special emphasis on climate. It was only the second "generic" study to be undertaken by a R/UDAT team, meaning its findings covered broad scale problems and were presented with the view they would be useful to all winter cities, not Edmonton alone.

Team members received no fees but only travel and living expenses while in the field. Funding came from the Alberta Ministry of Housing and Municipal Affairs, Winter Cities Conference Corporation, City of Edmonton and Alberta Association of Architects. Total cost was \$25,000 but if all team members had received normal professional fees the cost would have been ten times as much.

Prime initiators were Brian E. Eldred, President of the Royal Architectural Institute of Canada and John Busby, President of the American Institute of Architects.

The team produced numerous general and specific recommendations and suggestions but the one that was put forward most often in various contexts was that there must be a change in attitude towards winter by all northerners. The report declared:

"Early discussions during planning of the Livable Winter Cities Forum 86 confirmed that little of substance had ever been done in Canada, or elsewhere, to improve understanding of, or to develop a knowledge base related to the planning and design of more livable winter cities. Simultaneously, a realization emerged that this was not just a Canadian problem . . . and that, if properly handled, a "generic R/UDAT" in conjunction with Winter Cities Forum 86, the planned International Design Competition (for Edmonton downtown

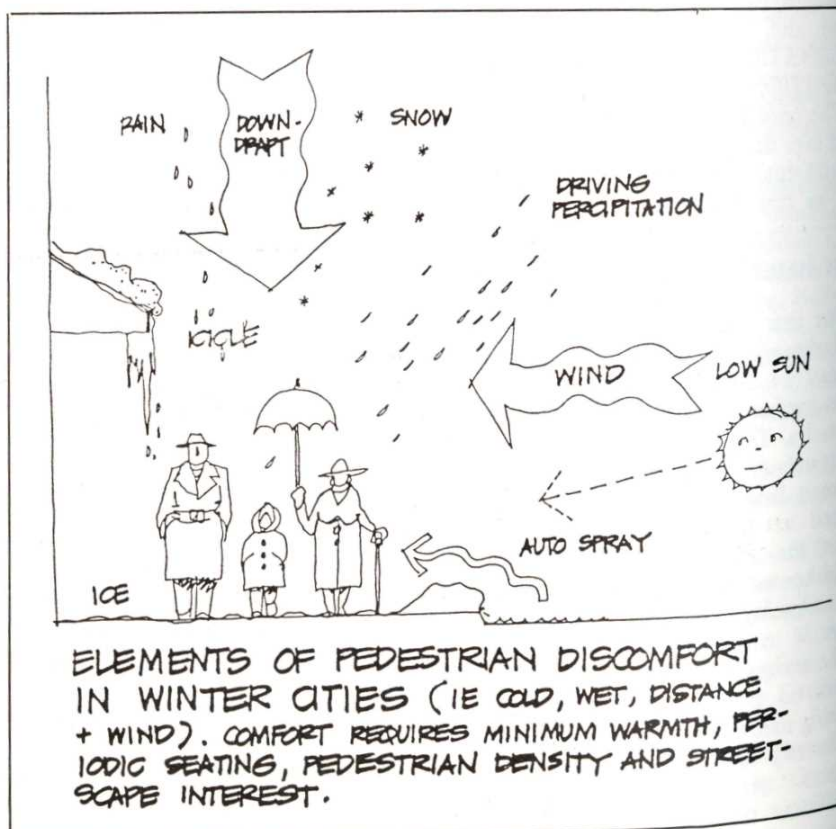
core) and the Livable Winter Cities 88 conference collectively held the potential to exponentially increase the knowledge base in this subject area."

Alberta Association of Architects and the R.A.I.C. Research Corporation agreed to "buy into" the process to give it longer life, states the report. The study may thus become an ongoing project with the hope a definitive and well rounded textbook would be available in time for the 88 Forum.

Change in Attitude

Said the report: "The winter city will not be created by a focus on space age bubbles, heated sidewalks, malls that suck the life out of a city into their corridors, or right-to-sun ordinances. It will require changes that are more profound, also more modest.

"The hardest shift will be attitudinal: to constantly see the city in its winter state, to ask each time a decision is made how things will fare during the months of cold, snow and



Fast Prescription But No Quick Fix

possibly darkness.

"If such questions are taken seriously, new designs will emerge, new standards will need to be adopted, and new patterns of collaboration forged. Many of these have already begun to evolve in cities like Edmonton; the barrier is the persistence of the summer state of mind. Winter cities need to be creative about winter, not simply tolerant.

"Forum 86 collected scores of possibilities for dealing with northern cities, and for the first time allowed experiences to be compared across geography and cultures . . .

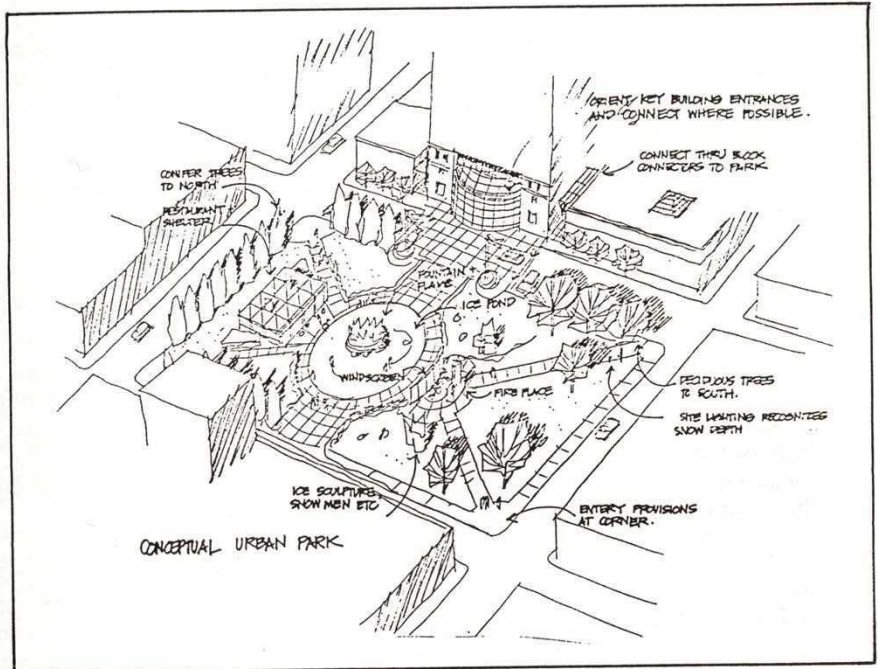
"Every city and community will have its own logic as to how to plan and develop its winter environment, rooted in traditions, geography and resources. The R/UDAT report should be read as general principles, not as prescriptions." Some points covered:

- * Northern cities are different from their southern counterparts because they must be planned and developed for two or perhaps more different environments. The white environment is as critical as the green environment.

- * History and mythology are almost devoid of winter references. Until winter is seen as an inescapable aspect of daily life, it will never find its way onto a city's political agenda. The usual responses to winter are a denial and an overwhelming desire to escape to summer climes.

- * To provide new more integrated environments at all scales from neighborhoods to downtown is critical. New arrangements will be needed allowing public and private funding to be shared and difficult issues of access and control to be arbitrated. Edmonton's new Downtown Development Authority promises to be such a vehicle.

- * The real innovation in building for the winter will emerge from a re-examination of building materials, standards, methods, funding, environmental significance, "and a myriad of other grubby details . . . don't look for a quick fix."



- * Environmental art, lighting, heated rest areas and other ways of adapting the outdoor environment can be essential ingredients in making winter into a more pleasurable experience. Expanding the range of and audience for outdoor winter recreation can have similar impact.

- * Adapting downtown areas to winter use is a critical priority since they serve the largest concentrations of city residents. Skyways, indoor atria and public spaces should be linked, or, if not, clearly signed since many users will not be familiar with them, and those users are the all-important tourists and visitors.

- * Those who cannot afford to enjoy comfortable commercial environments must be considered in the planning — the down-and-out; also other important segments of society, the young, the elderly. There must be a greater span of concern for all categories of citizens which must be reflected in political support for improvements.

- * Public and private elements have to learn new lessons in give and take "in the mixed use, compact winter city".

Unsure of Status

The report comments on the hardy souls who loudly proclaim their love of winter: "So much of our mass advertising, including consumer products, holidays, clothing and transportation, emphasizes sun and green surroundings, that residents are unsure of their own status, living conditions and quality of life in the scheme of things. A defensive chauvinistic pride is often the result of personal insecurity.

Times are changing. Houses, cars, clothing are being improved and made more suitable for the season of cold and snow, but meanwhile people are becoming more sophisticated and mobile and less prepared to put up with the physical punishment previously associated with winter.

"We have noticed lifestyles are changing for residents of northern cities . . . but cities themselves have been slow to change . . . developers have been more preoccupied with establishing profitable buildings . . . at the expense of their impact on the immediate urban environment . . . there has been a failure on the part of public planners to involve their

capital works projects in a more co-ordinated approach to urban problem solving."

Successful planning of a more livable downtown rests on establishment of a new coalition between business and governments but also including residents who are affected. A difficult problem is to find spokespersons for citizens not now involved in downtown who still have much at stake in downtown viability. Local leaders, principally mayors, must "understand the importance of the establishment of a broadly-based coalition that will move the downtown from being a reflection of narrow interest to a more ambitious and more open expression of a cold climate community."

"Construction programs which seek to avoid the obvious — the long winter months — will confirm people's impressions that if they have the choice . . . they should seek to escape from the cold." Obtuse and insensitive city winter design and planning literally force many who have health problems to go south through the worst period of winter.

"Who owns the city?" brings up the question of who is entitled to the comfort and convenience of the most attractive and best designed buildings, atria and amenities. What about the destitute who need the comfort for bare daily survival." The degree to which a city, or its downtown, make it possible for different groups (often with competing interests) to make use of the same spaces may be one measure of civility. In many winter cities warmth is a "class issue".

Denial of Winter

"Our northern cities are built with few aspirations," declares the report. "Winter implies nothing more than overcoming the cold and nuisance that the season represents . . . Of the 52 photographs in Edmonton's tourist brochure, only one is taken in winter and it shows no city at all, only snow covered hills. Changing this sense of the city must be the first agenda for building the winter city."

Specific proposals for Edmonton: "Fort Edmonton closes during the winter months. How much better it would be to open it, perhaps on weekends, portraying winter days at the turn of the century."

Oral and visual histories of winter should be recorded and communicated through historical collections, displays and exhibits.

Structural changes — screened or glazed porches, passive solar house

plans, masonry walls as storage for warmth, reduction of harsh winds through design and placement of buildings, planting of evergreens.

Restoring and preserving nature areas; making the wide river valley that bisects the city more accessible in both winter and summer.

Limitless possibilities for environmental art: ice sculpture in winter, colored lights on snow banks, Christmas lights festooning trees, "wouldn't it be possible to design street lighting to make it colorful and decorative year around?"

Brightly colored buildings; use of mirrors and prisms to add decoration to buildings, particularly if they are large and dramatic.

Access to sunlight should be an essential. Building forms should mitigate wind velocity. Small scale outdoor spaces could be made into heat islands and sun traps. "Every outdoor space should have some use and purpose during the winter months, just as every indoor space should be attractive in the summer."

Co-operation the Rule

"A meaningful winter festival in Edmonton, or other northern cities, could do much to break the denial of winter." While summer festivals emphasize ethnic diversity, how appropriate if winter festivals emphasized and celebrated the city itself as an experience that all residents share. Let such a community festival not be aimed primarily at tourists. The tourists would come later once the event had grown in popularity.

Compactness is a virtue from the points of view of capital and maintenance costs, also winter comfort and convenience. "A recreation centre set away from the street and distant from bus routes represents a summer city. Designed so its front entrance can serve as a waiting area for buses, and located behind the public library and shopping centre, we have the outlines of a winter city." Encourage dual use of indoor spaces — combine lobbies with bus shelters, make heated lobbies serve a group of adjacent buildings or functions.

"Summer and winter pedestrian systems and spaces should be well integrated and frequently connected to optimize choice and year-around use of both." Skywalks and Plus-15's should be interconnected and clearly signed to the greatest extent possible.

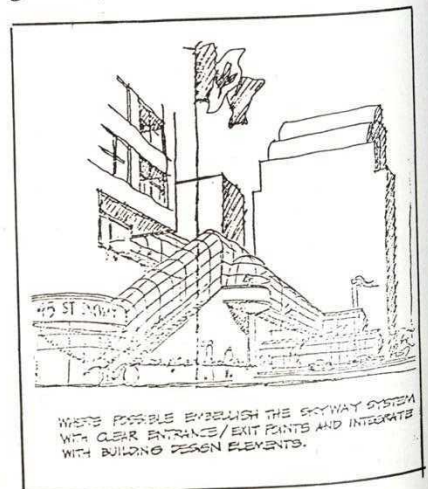
Coordination, co-operation and flexibility must be the rule. "Plans and requirements of private sector ac-

tors change and, as they do, opportunities are created for the public sector to achieve a significant movement towards the objectives set out in an Agenda for a Winter City." Each city has its problems and peculiarities in dealing with the planning, design and financing of development or redevelopment. Normally three principal players are the private sector, the public sector and some such intermediate group as a downtown businessmen's association. Working together far more can be achieved than if each group acts alone. But "there are no set formulas guiding the funding, design, engineering and construction of urban facilities and spaces." Further, "the formula for sharing in responsibility, reflecting the capabilities of the parties, must be developed well in advance."

Edmonton's "A Blue Print for the 21st Century, The August, 1984 report to the Mayor from the Task Force on the Heart of the City sets the tone for actions "which can catapult Central Edmonton into a position of pre-eminence among Winter Cities" and give the city a self-image "which will undoubtedly be translated into an international image in the years to come."

The report reviews basic elements in "A Blue Print For the 21st Century" and concludes with a reference to how all the splendid plans can be paid for.

"Lack of money is never the ultimate problem, nor can it be the reason for inaction." Other cities have allowed unwillingness to seek new cooperative solutions for community betterment to inhibit action. But Edmonton with its progressive and enlightened attitude and long term plans to make itself a model Winter City has laid "the foundation of a great city".





by William C. Rogers

WE NEED THE RUSSIANS

The "Winter Cities Form '86" in Edmonton was magnificent. It marked the coming of age of the Livable Winter City concept and gave it world-wide legitimacy. "Almost", that is, because the Russians were missing. Certainly they were invited but did they know how much we needed them? For that matter, do we really know how much we can learn from the Russians experience with winter? We should know more before we invite them again.

Follow the isotherm for 0 Centigrade for January around the world. (Most atlases have these weather maps in their front pages). Or take a global trip along the 45th parallel. And how much of the Soviet Union do you find below these geographical lines? Very few cities in the U.S.S.R. appear - Baku, Tbilisi, and Tashkent are hardly your typical Russian cities. Certainly 90% of the Soviet cities are winter cities and of the 600 million people who live in Jack Royle's "Winter World" more than one third speak Russian. They live in the most famous winter cities of them all - Moscow, Leningrad, Kiev, Gorki, Kazan, Sverdovsk, and Novosibirsk.

And what do we know about the Russian accommodation to their famous winters? We know far too little. Part of our ignorance is due to the nature of the 60 year old closed Soviet society, and part is because we haven't asked. The winter city idea is so new. Some of the answers are there to be found, however. Certainly the best way would be to promote exchanges with the Soviet Union. In the meantime we can read and look. Much of the message is on public record.

First of all, let's look at Soviet city planning. If there ever was a high density in modern cities they are found in the Soviet Union. May-

be they have a much higher density than any of us would want, with their crowded apartment buildings. Nevertheless there it is to see and to ponder on. With their high density living and general lack of suburbs, we find the ultimate in urban public transit systems. There are very few cars on Soviet streets. We can examine the impact of mass transit and high density in the Soviet cities. The Moscow subway is the most famous in the world. Snow removal certainly isn't the problem in terms of our North American miles and miles in the packed Russian cities, but tales have reached us of the quickness with which snow can be removed from the major highways in the Soviet state. A foreign diplomat once told us that snow plows move in echelons on the super highways around Moscow and beware if you are caught either coming or going.

Probably the U.S. and Canada would not employ older women to use stick brooms for clearing sidewalks but the method by which ice blocks on the curbs are broken up in the spring would be interesting.

More than 700 towns and urban-type communities have been built in Siberia during the past thirty years. We know very little about them, but the experience might be of value in the Canadian north. One Siberian city named Cheryomushki is said to "blend very well with the scenery. Clumps of pines stand between the houses" near the Sayan mountains.

Any lessons about building for the winter world have to start with the Moscow Kremlin and St. Basil's Cathedral. Except for the heating system of which we know nothing, the whole story is told in thousands of pictures - the magnificent winter colors, the rich ornamentation, and

"Hail to thee, Russian Winter
Dazzling Enchantress,
Snow-white swan,
Hail to thee, Mother Winter."

—P. Vyazemsky

the evergreen landscaping. There is not a city in the U.S. Frost belt or in most of Canada that wouldn't make a special place for an exact copy of any one of the ancient structures in the center to what was the heart of the Grand Duchy of Moscow at a time when North America was a wilderness.

Other Russian cities have buildings of similar visual interest. Frequent mention is made of the "lovely pastels" used in old urban mansions. The handsome monasteries and convents of the Russian Orthodox Church are something to conjure with. The color "red" in the Russian language is the same as the word "beautiful". This has important political and architectural significance. The post-modernist architects of North America with their new found interest in color and ornamentation could get new inspiration from Russia. Even Stalins "Balaban-Katz" style buildings look pretty good beside the cold modern buildings such as the "new" Rossiya hotel in Moscow. Compare it to the older Hotel Ukraina with its ornate towers, for example. Many Russian buildings show what can be done with wood. Churches on Lake Onega are examples of ultimate artistry with this material. Visitors to the U.S.S.R. lucky enough to stray off the beaten path speak with excitement over the scroll work and use of color on the window and roof trim of the lowly peasant log "isbas". Why is the log cabin which is so much connected with North American history always relegated to the country? Certainly up to code, handsome log houses ought to be invited back into the city and perhaps decorated with some of those lively Russian colors. From a previous exchange with the U.S.

Department of Housing and Urban Development (HUD) one of the things learned about Russian building was that they have a technique for putting color into concrete. Think of how many raw concrete buildings built in North America could have benefitted from the use of such a technique.

And what about landscaping? If anyone doubts that the conifer is the ideal tree for winter, let him visit the Kremlin and look at the handsome specimens all around the walls in the middle of the biggest Russian city, where the largest number of automobiles can be found. They are doing just fine thank you. In the Russian parks we also see the use of evergreens. Combination of conifers and birches are something that appear frequently in Russian poetry and literature. A thorough examination of Russian literature by those wanting to explore the Russian winter would be very rewarding.

Certainly we can learn about the social environment from literature as well as direct observation. The deeply ingrained winter custom of hours long visits is an appealing one. Sitting around the table long after dinner, talking over tea and maybe vodka is a happy custom that conflicts with the American fast food syndrome. It might be considered as a viable change in our life style.

The arts have traditionally thrived in Russia with the theatre and ballet season in Leningrad and Moscow obviously outclassing what goes on in southern cities such as Rome and Madrid.

In clothing we can now see people on the streets on Russian T.V. and observe their wonderful use of furs. Is there anything more beautiful and functional than Russian winter hats. The felt boot is apparently impervious to cold and it has been improved on in recent years. I've never seen these boots in a Minnesota winter, but I saw

them on exhibit at the Edmonton Forum and met a charming couple of Ukrainian extraction who told me about their grandfather working outside all day long in Alberta without getting cold feet. Bring on those Russian boots for the next time I walk down Jasper Street in Edmonton as I did one -30 degree day.

If alcoholism is a disease of the winter, we certainly have learned that it is a major Soviet problem. An exchange of specialists on that subject is now being arranged by the National Council of World Affairs Organizations and a delegation will be visiting Minnesota before long and we have suggested that a Russian expression of interest on exchanges on "the environment" should include the winter urban environment.

Anybody with knowledge about Russian adaptations to the winter should please write me in care of this Newsletter.

IS "THE NORTHERN OPTION" OUR ACE IN THE (W)HOLE?

By Arni Fullerton, President, Winter Cities Conference Corporation

There are convincing economic arguments for taking off our "Northern/Winter Blinders" and tailoring a national strategy for research, development and marketing that is based on our strengths. Our real and lasting strengths, northerners surely agree, can only come from building on what we can do best, capitalizing on situations where we have the greatest advantage. This means learning from our experiences in living, working and developing in a cold climate. We have to think of many sectoral areas where this must happen. Here are some of them:

Science	Manufacturing
Research	Tourism
Design	Leisure
Transportation	Recreation
Communication	Clothing
Health	

A good example—for years we tolerated inefficient (in our climate) automobiles suited to the tastes and

values of more temperate regions. Then Sweden, and later Japan, designed cars suitable for northern conditions. Their success is obvious nowadays in every northern town.

We possess the north, and we also possess a very high level of technology. Only northerners are so favorably endowed. Thus, our "winter cities" activity sets in motion a dialogue to define our uniquely northern option and to discover its nature and dimensions.

IWCA with its Newsletter, books and seminars was an early step. So also was FORUM 86, our international conference in Edmonton this year. We found Sweden, Hokkaido, Norway, Finland and other northern regions eager to meet with us and exchange ideas. Now we look forward to Winter Cities Forum 88, a major international gathering and exposition that will rally all northern regions as never before to consider their opportunities and problems. The eyes

of the world will truly be on Alberta in February '88 when the XV Winter Olympics go forward in Calgary while Forum 88 proceeds in Edmonton.

We, of Edmonton, hope and plan by 1988 to have laid out and spelled out the full nature and potential of Canada's "Northern Option". Does our northern situation create a viable alternative, an "Ace In The (W)Hole" for Edmonton, for Alberta and for Canada? What are the pros and cons, the possibilities, the difficulties?

We shall most certainly need to involve many more Canadians in this dialogue than the few hundred who have so far seized on the idea.

Do you have an opinion? Will you write and tell us about it. Address your letters to: Winter Cities Conference Corporation, City Hall, Edmonton, Alta., T5J 2R7 —or to: Livable Winter Newsletter, 250 The Esplanade, Suite 301, Toronto, Ont. M5A 1J2.

AT LAST WE'RE DRESSING SENSIBLY

(from Winnipeg Free Press) By Val Werier

There is a gradual but important development in the way Winnipeg men are confronting the world. Many more men are wearing parkas, a matter of considerable virtue on the local scene. Men have come to their senses in dressing for the winter and this realization has some delightful ramifications.

Have you noticed a lot of men are happier this winter, notwithstanding the early onset of Arctic weather? Being comfortable outdoors when it is -25 or -30 Celsius induces an entirely different outlook on life in our city. It imparts a sense of accomplishment, a feeling of well being and self reliance.

Comfort

The man who can walk in comfort when the wind chill reads 1850 can conquer the world. I submit if all citizens wear adequate parkas, the amiability of the city would reach such levels that all politicians would be loved, the post office would be admired even retroactively, and no one would complain about cold soup.

Feel good and happy about oneself and one tends to have a rosy view about the world. Parkas have that potential. I don't say these things lightly. Many people suffer cruelly in winter because they have quaint ideas about geography. They insist that we're residing in sub-tropical climates.

The evidence is overwhelming. Youngsters as well as adults go about bare headed in December, just like the natives do in Acapulco or Palm Springs. Maybe they're trying the theory of self-fulfilling prophecy. Think positively that it is warm and it will be. It doesn't however work that way. Gadding about in December without head cover is like removing

doors in your house in winter. All the heat escapes.

But some do insist on dressing for winter in this preposterous manner. I cannot understand how teenagers can walk about in winter with tight jeans, a flimsy windbreaker and running shoes. On second thought, I do comprehend. They don't walk very far or they'd turn into ice. They put on a good show but they're freezing. They undergo a painful experience going outdoors in the very same sort of dress worn by teenagers in California.

I suggest the reason some teenagers behave more like teenagers in these parts is because of the discomfort they endure in winter. Point to a person in their teens or twenties who gripes and rants about the standard and character of life in Manitoba and you will discover he or she suffers severe distress in these season. They are numb in winter. They meet the world deadened and insensible.

Now I will admit we do have severe winters, colder than in Moscow and Anchorage, Alaska. But that's all the more reason to dress for our weather with some sense of sanity.

Down-filled

Naturally I wear a parka, whether on a walk, or out to any occasion, formal or casual. My parka is down-filled, has an ample hood and extends to just below the knee. It's light and windproof.

The hood is so ingeniously constructed that I can twist it around as a shield against the prevailing wind when it blows with some ferocity. For a walk, I wear cotton drawers, a turtleneck sweater with a wool mixture, boots and one pair of thick socks, and lined, leather mitts. If it is extremely cold, I will pull my scarf

up on my chin and fasten the hood to the ultimate level of bundling.

No problem. Those who dress like imbeciles think I am a hero because I walk in any weather. I don't mind admitting that's good for my self esteem. That's what my parka does for me.

Enticing

Take a look about downtown and you will observe that more men—and women—are wearing parkas. Garment manufacturers have finally cottoned to the fact that nicely designed parkas, light and warm, will entice citizens of all classes. I am told that the "executive parka" is selling like hotcakes. No longer are parkas regarded as wear exclusively for poor clods who have to work outdoors.

It is now becoming *a la mode* for lawyers, doctors and others high on the totem pole to wear sensible garments. They've discarded their coats designed for spring in Sarasota and have taken to the parka. I anticipate more congenial professionals in the future.

One problem arises from the growing popularity of parkas. Cloak rooms are not equipped to accommodate them as you will observe in any restaurant, hotel or institution. For that matter, cloak rooms were never designed to handle winter garments. The people who designed our cloak-rooms denied the existence of our seasons. Some day hotels will be built with windows that can open and larger cloakrooms.

Happily there is now an acknowledgement that winter can be comfortable, a nice omen for the new year. And a happy 1986 to all of you.

"Greenhouse Effect" Computer Model Assumptions Questioned

Wrote Christopher Essex of University of Western Ontario Department of Applied Mathematics in a recent issue of Climatological Bulletin (publication of Canadian Meteorological and Oceanographic Society): "Although climate simulation (with use of computers) has been a great conceptual advance, full knowledge of the real importance of trace gases as triggers of climate change must

await a better understanding of the mechanics of the climate engine."

Scientific calculation of pure radiation is not controversial, Essex declares "but how those calculations were connected to surface temperature perturbations . . . was . . ." Thus, the so-called 'greenhouse effect' measured in terms of surface temperature change . . . is not so much a radiation problem as a problem of model assumptions. It is almost completely academic to infer the effects of trace gases in this fashion."

UPCOMING CHAPTER EVENTS

Toronto Chapter Meetings—May 8 and June 12 at 5 p.m., in the Boardroom of Toronto Planning Department, 11th floor, East Tower, Toronto City Hall.

Edmonton Chapter Meeting - April 29.

Ottawa Chapter Review and Planning Session — May date to be announced.

Sapporo's Northern Research Centre Spearheads Many Programs, Not Strictly Research

Roots of the Northern Research Center, a key element in the remarkable progress of Hokkaido and Sapporo in the last decade, go back to the end of World War Two. Japan's central government then undertook to develop Hokkaido, its wilderness northern island-prefecture, in order to provide a living for such new settlers as discharged veterans and refugees from destroyed cities. Two ten-year plans in succession brought to completion sufficient roads, services, utilities and urban construction to meet the basic needs of the new settlers.

Then, in 1971, Hokkaido's newly elected governor, Naohiro Dogakina, invoked a third ten-year plan calling for vigorous attempts by all elements in Hokkaido to learn from the rest of the northern world how to best deal with severe climate and problems of cost, remoteness and seasonality associated with northness. Ten years later this was followed by a further much more ambitious plan. The first mission, searching for northern answers was sent to Siberia and the Soviet Far East area. In 1972 missions went to Canada and U.S. And to co-ordinate such activities and provide a repository for information gathered, Northern Region Study Association was formed. Each year the number of foreign visits increased and northern countries were repeatedly invited to exchange with Hokkaido and its principal city, Sapporo.

In 1978 the Study Association was renamed Northern Research Center, provided with increased government support and larger offices and instructed to get even busier.

To list just a few of the exchanges and conferences since organized: "Hokkaido-Swedish Industrial and Cultural Co-operation Conference" (1979); "Northern Regions Women's Interchange Conference" (1980); "Northern Regions Marine Accident Prevention Conference (1981); "International Conference on Interchanges in Northern Regions", and "International Symposium on Scandinavian Interiors" (1982); "Symposium on the Northern Regions Economic Exchange", and "International Symposium—Hokkaido: Foreigners' View"

in 1983.

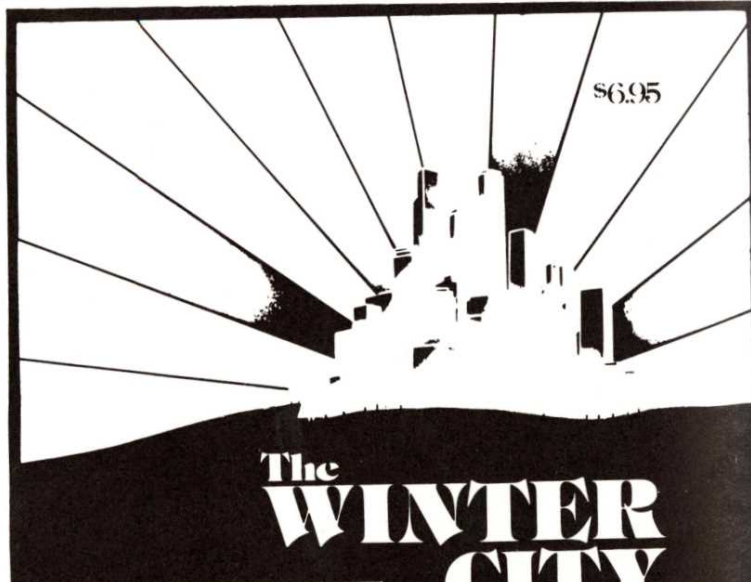
Meanwhile the Center was organizing numerous lectures, seminars and other activities for residents and business groups of Hokkaido. It became involved in sport, successfully introducing curling to Japan and developing programs for sports fishing procedures that would protect species from depletion.

The pace of activity grew more feverish each year. In 1983 the Center became a founding member of the Northern Regions Economic Interchange Association, published 37 reports on a variety of activities including: "Economic Interchanges Between Hokkaido and Siberia and the Soviet Far East", and "The Energy Situation in Canada". Its publishing section produced books, reports, a quarterly titled, "NRC Newsletter." The Center each year holds numerous exhibitions and even provides a self-study course on northern regions languages.

How is all this financed? Sumio Hasabe, managing director of the Center, told all to a UNESCO-MAB Northern Science Network conference in Alaska: "We are supported by membership fees of 1,800 corporation members and 2,400 individual members which accounts for 40 percent of our annual budget of 160,000,000 yen (\$1,100,00 C.). Fifteen percent is a subsidy from the government of Hokkaido; 45 percent comes from revenues produced by NRC projects.

To pay for the travel and expenses resulting from the many exchanges, a Northern Regions Exchange Foundation was established some years ago. Half of the contributions to this foundation come from the prefecture, the remainder from the public and corporations as donations. Total funds invested by the foundation now exceed 500,000,000 yen or some \$3,000,000 Canadian.

NRC Newsletter actively solicits memberships, especially from overseas recipients. The fees: for institutions or corporations, 10,000 yen annually (about \$70 C.) for individuals, 5,000 yen (about \$35). For more information write to: Northern Regions Center, 7-Chome Kita 3-jo Nishi, Chuo-ku, Sapporo, Japan.



The WINTER CITY Book

A Survival Guide for the Frost Belt

At Winter Cities Forum 86 in Edmonton much interest was shown in "The Winter City Book", authored by Dr. William C. Rogers and Jeanne K. Hanson of Minneapolis. Anyone interested in purchasing the book may do so by sending \$7.95 U.S. (postage included) to Dorn Books, 7831 East Rush Lake Road, Minneapolis, Minn., U.S.A. 55435.

By William C. Rogers and Jeanne K. Hanson

HOW TO SET UP LWCA CHAPTER

Representatives of several towns and cities asked at FORUM 86 how they might go about setting up Livable Winter City Association chapters. LWCA board of directors and national executive encourage formation of additional chapters as the only means to apply the efforts of the organization at the all-important local level.

Experience of existing chapters is that after a period of organization and education by means of seminars, workshops and other exchanges, they can begin to involve themselves in local issues and situations and rally public interest where necessary in "winter improvement" causes.

National President Xenia Zepic outlines "FIVE STEPS TO CREATION OF AND LWCA CHAPTER". Here they are:

1. DETERMINE INTEREST—Try to determine - and to list names of people in your community who would be interested sufficiently to involve themselves and put forward some effort to assure success of the new chapter.
2. REQUEST BROCHURES—Write to National President Xenia Zepic, Livable Winter City Association, Ste. 301, 250 The Esplanade, Toronto, ON, M5A 1J2 and advise how many copies of the LWCA brochure (and spare copies of LIVABLE WINTER NEWSLETTER if available) you would like to receive. You should request one for each prospective member and a few extras.
3. DISTRIBUTE BROCHURES AND PIN DOWN INTEREST—Personally, or by mail, send the brochures to your list of prospects and ask them to indicate their interest. National Executive has felt a new chapter should have at least ten members. In smaller communities, a smaller number may be unavoidable through a start-up period, but a chapter is unlikely to function effectively with fewer than ten members. Individuals or groups of two or three are advised to join the nearest and most convenient existing chapter.

4. PREPARE RATIONALE—If there is sufficient interest, advise President who will then arrange that a sample rationale be sent to you, also sample copies of chapter by-laws. The sample rationale and sample bylaws are to be used as models. In preparing your rationale sit down with your group (or a small committee drawn from the group) and put down in writing what you hope the new chapter may achieve, and what its purpose might be. Look around your community and give thought to projects that need to be undertaken. Once you are satisfied there is valid need of the chapter and important work to be done, proceed and organize your chapter and elect officers, form committees and get to work. One thing to consider is whether there are other citizen organizations in your community concerning themselves with four season livability, (urban environment groups, possibly heritage groups, educational institutions, etc.) Municipal government bodies such as parks departments, school boards, transportation bodies, and businessmen's groups are concerned with their own areas. Your more general LWCA chapter may be able to work with them, help with research, and help build public support for projects that will make your community more enjoyable and attractive, or initiate campaigns for such improvements.

5. USE THE LIVABLE WINTER NEWSLETTER—Appoint a press officer to send reports to LIVABLE WINTER NEWSLETTER. Send names of prospective chapter members to NEWSLETTER so that they may receive sample copies for a few months to help them find out more about the organization.

Once your chapter is established, LWCA national executive will give it formal recognition and a portion of membership fees received by national will be rebated to your chapter for local purposes. Of the individual \$50 membership fee, \$20 is earmarked to

cover the cost of a subscription to Livable Winter NEWSLETTER, \$10 is retained by national for purposes of providing brochures, stationery, and other publications, engaging in research, organizing seminars and workshops, for international relations and public relations and promotion. \$20 is rebated to the member's chapter for local chapter operations and projects. (In the case of \$80 family memberships—only one subscription needed—\$40 is rebated to the chapter; in the case of corporate memberships \$55 is rebated to the chapter).

Chapter chairmen on election become members of LWCA national Board of Directors. ■

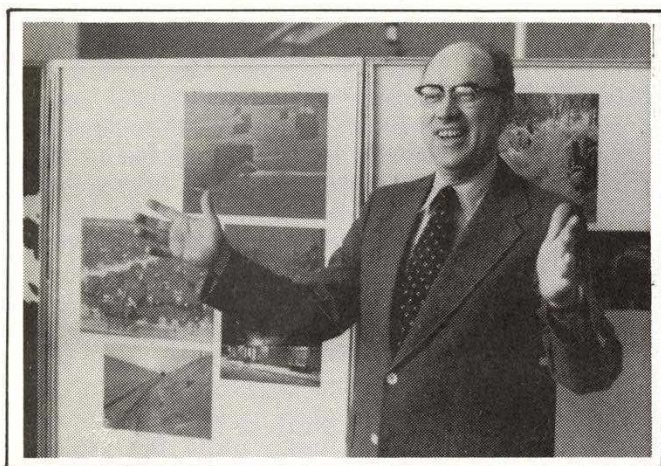
R-2000 Student Design Challenge Involves 455 Students in 13 Schools

Organized by Ontario Ministry of Energy and co-sponsored by Fiberglas Canada Inc., and Select Home Designs of Vancouver, a competition to design energy efficient homes has sparked wide interest among architectural and design students in Ontario. The competition is at the stage where finalists have been chosen and winners are to be announced. Prize winners get summer jobs with Select Home Designs as apprentices and 12 schools producing the top entries receive bursaries ranging in amount from \$10,000 to \$500.

Some 455 students in 13 colleges and schools participated in preparing 40 entries. R-2000 houses feature high levels of insulation, high efficiency heating systems, controlled ventilation systems and airtight construction. The entries are being judged by a jury consisting of: Greg Allen, Allen Associates; Charles Simon, Simon Architects and Planners; Steven Riley, manager of Select Home Designs; Robert Anderson, Director, R-2000 Program of Canadian Home Builders Association and Doug Geddes of the Heating, Refrigeration and Air Conditioning Institute of Canada.

Some 500 R-2000 homes have been built in Ontario and their popularity with home buyers is increasing, according to Hon. Vincent Kerrio, Ontario Ministry of Energy. The new designs submitted in the "Design Challenge" competition will increase the variety of layouts and structural features while indoctrinating the students in R-2000 advantages.

EXAMINING THE 'NATUR



... THE LOGIC

There is no argument, maintains Sweden's architect-philosopher, Peter Broberg. From the time our human ancestor seized a stick as a weapon/tool we've been creatures of technic. The Modern human is as much a product of technology as its generator. A major problem now is how best to achieve "the climatized city".

Based at Landskrona, a small city near Bergen, Sweden, Broberg delivered a thoughtful and provocative address to Winter Cities Forum 86. Some excerpts:

Among living creatures, the human being has displayed exceptional ability "to find technical solutions to environmental problems." This has allowed the species to spread throughout the world even into unkind or destructive environments. "Homo Sapiens could just as well have been named, 'Homo Technicus'."

Human evolution has been linked with advancing technology. "The problems of unbalance, which exist because of man's special ability to break out of nature's boundaries, require new understanding." Evolution is not always forward moving. "Development sometimes stops because of too great specialization . . . instead a younger, less specialized form, takes over and chooses a new path of development . . . Progress is not always a forward step." It was pressure from the human arm and hand with all their technical extensions which placed demands on the human brain and forced its development. "We usually say that man created technic; we should say that technic created man."

On the evolutionary tree, the human was a "general" species. Other species must gamble on strength, speed, poisonousness, etc. But humans, being able to extend their powers and flexibility technically through intelligent use of tools and weapons, is enabled to remain a general species. "It is as a general system that man becomes a superior creature. The general, the flexible, the open, win the evolutionary struggle."

Broberg reviewed the theories of thinkers and philosophers through recent years, pointing out the charac-

teristics of "Homo Technicus" the new human. This being can now extend his powers and effectiveness with devices to multiply his strength and speed; still other devices to increase the capacity of his nerve systems and brain. This mechanical and electrical "macro-man" is blessed with small round legs and a medium weight body that give him ability to transport himself through walking — an important consideration in the operation of cities and communities. Extra powers are obtained through social action when people extend themselves through collective action; and still broader powers when they act as small components in the national or world scale agglomerations.

"And to the four steps which have developed, we can now add two new ones — the first step is micro-technic, a step that is rapidly leading us into the information society; the other step is bio-technical leading us into quite new possibilities for steering our internal and external biology, our minds and bodies."

Finding methods to control these "techno-organs" and extensions of our human powers is the most important task of our society. The city is the natural home of "Home Technicus"; it is "The highest order of the innovation and organization ability of the modern human. It is "actually in great degree our outer body," with the functions of a living system and must be handled as such.

"The human being of the future will therefore be an urban individual. The growing world population, movement from rural to urban districts, and increasing technical deve-

lopment are realities we must live with and learn to handle . . . an enormous challenge to civilization." We worry about famine, damaged environment, unemployment and nuclear war." It is time to also raise the question of urbanization and bring it to the highest level of concern."

We have been building cities without proper thought or plan. Some things must change. We must stop allowing cities to grow like octopuses with congested areas and endlessly expanding extremities; we must stop building cities where functions are separated so that a fantastic traffic apparatus is needed to move the citizens back and forth; and we must accept the concept of the big city arranged as a tissue of smaller cities.

"The urban environment must pulsate life. Here we will shop and play, stroll and work, perform and speak, meet and take farewell."

And, "we must see to it that city life not be interrupted by months of bad weather which drives people into the houses. We need cities which can rise above cold and heat, wind and fog."

The climate protecting layer "is therefore of highest importance" among the urban organs. It is the quality of this which decides the quality of life in many cities.

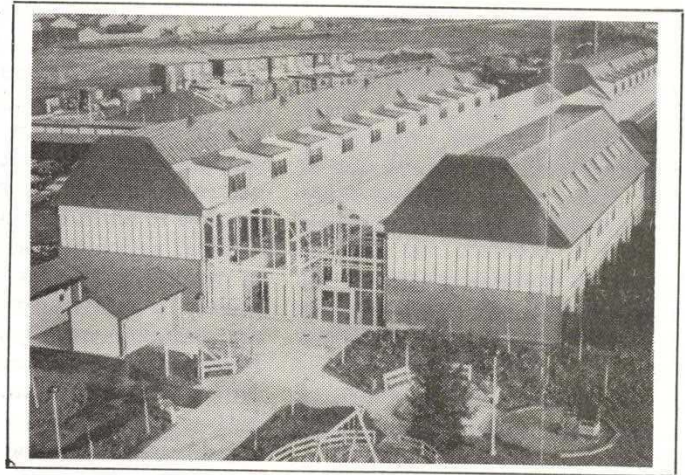
"When we begin to speak of climate protecting membranes, or of encapsulating urban rooms, we face considerable technical and structural problems. The membrane necessary is a transparent layer which we must learn to use." We have recently seen extension of glass cover to enclose

VS. TECHNIC' ARGUMENT

... THE IMPLEMENTATION

Meanwhile Peter Broberg, through The Landskrona Gruppe, a design and development company, has moved to test out his theory of the advantages of encapsulation by creating glass-roofed residential streets.

Ann Thulin, an architect and member of The Landskrona Gruppe described two such projects.



our largest buildings. The next step is for the transparent layer to create its own room between or in direct connection with the building. Even back courtyards, streets and squares can be enclosed.

"It is only to be expected that when we go out of doors in our bad weather winter cities and consider the half-dead urban life, we wish for a more useful urban environment."

But much of human technological development is associated with meeting bad weather—the development of clothing, of fire and heating and of structures. But we still have only partially usable cities.

"During winter we are forced to move into the buildings" . . . our cities are really half-year cities or half cities for much of the year. "By encapsulating we can steer the climate of the urban room and thereby open to new possibilities for urban life." We create a fourth membrane to protect ourselves after clothing, heating systems and structures . . . we can now see the climatized city." We thus create a balance between the "paradise genetics" heat of our bodies and our surroundings. Climatically we are searching for paradise lost. That is why livable winter cities are not only an ambition for architects, but a necessity if we are to shape an urban milieu in harmony with our biological makeup.

"By using technology wisely and well, it will be possible to create integrated cities within cities, including central areas usable all year round. If we connect our planning to our genetic background, we will be able to realize a paradise city." ■

TARNAN AND NEW ESLE

By Ann Thulin

Tarnan and New Esle are very similar and yet very different since one of them is very large and the other very small. The two projects share aspects of energy conservation, which was the primary concern of the authorities, and a glass covered street with areas of semi-private character which was perhaps the aspect which was of most interest for Landskrona Group which initiated the projects and functioned as architects. I am a member of the group and participated in design work in both projects. I am especially qualified to speak about these projects since I have lived in the small project for almost three years now. A situation which I can highly recommend to all my colleagues.

I have another qualification in that I have been working with greenhouses for many years and find them to be extremely interesting from the point of view of the advanced technic necessary to make life as pleasant as possible for the cultures grown in the greenhouse.

Building with glass has generally enjoyed a renaissance in recent years. I see a growing tendency to use glass to create local environments that really function for the people who live or work there.

There has also been an important social development which must be carefully considered when planning housing in a buyers' market. The "average family" has become the "average household" in at least all

of the larger cities in Europe. One or two person households, with or with-

shorter periods of time. It is our contention that these households will, as soon as they see examples that they can accept, be asking for *housing* with built in security.

The social pattern today is built upon groups of friends and acquaintances at work, at school, in conjunction with a sport or hobby that we are involved in, relatives in some cases.

These contacts are important and it is seriously wrong that many forms of housing do not give people a chance to build up this kind of contact circle right on our own doorsteps, particularly people who don't often get out of their homes. The anonymous entrance halls in city apartments allow us to keep our privacy but not much more can be said for them.

One form of housing that small households will be asking for is the private apartment which gives access to a sort of loose and informal extended family - *if* that can be done without giving up their privacy. They will want to be able to very quickly get to know their neighbors since mobility is a way of life nowadays.

Both Tarnan and New Esle offer the people living there more than an apartment. Here you have an apartment placed in a connected environment - a part of a whole but without any loss of privacy.

The little project, Tarnan, consists

of 9 apartments of 120 - 130 m² with 5 rooms and kitchen. It is situated right in the heart of the town of Landskrona in southern Sweden - an area called Scania.

The project has a lot of operational equipment, a group energy system with heat pumps and ground water wells, greenhouse roof, ventilating equipment, etc. We save a lot of energy, and the glass covered courtyard is automatically cooled if necessary.

Because of the control instruments and the shading curtains we will at most experience a couple of degrees warmer in our greenhouse/street than the temperature outdoors. A difference that cannot be felt - only measured.

In the middle of the day the temperature is very close to the outdoor temperature while the evening temperature most often is 6 to 8 degrees warmer.

In the winter we do nothing to heat the street, but even so find that the temperature must sink to -10°C before we will begin to get freezing temperatures.

These projects start with the street, since this has been the main point of contact between people through time. In recent history we have gotten the idea that the street is mainly for transportation between two points, preferably as rapidly as possible. This is not true and people are taking back the streets all over the world, usually aided by commercial interests. It must be about time to reoccupy our streets as private citizens.

Our little street has become a community urban room - a social room if you will - which has changed our lives. It is completely free of automobiles and quite safe for children and pets. Its not your usual public thoroughfare financed by commercial interests and there is no tradition for its use. But we are finding ways to use it all the time.

The project is a Scandinavian type of condominium. We are nine families who rent out apartments of the organization which owns them. We are also the organization. We all have a seat on the board of directors which meets once a month to talk about money. We also take care of the maintenance. This is a very healthy form of social interaction. No one is expected to take part in any purely social activity and no one has to be

coaxed to take part in talks about his own investment. Therefore our meetings are well attended and our social activities are also.

The street is lower than the ground floor so we can see what is happening from out kitchen windows but passers-by can't see in. We have a wonderful window above the sink which brings winter sunlight all the way into the north wall in the winter time. A true winter-city quality. A winter protected window to let in the low winter sun.

What we have basically discovered in our project is that we have more privacy in our living situation than in an ordinary row-house situation. Firstly, we have a totally private roof terrace with a large room beside it to balance out the semi-private courtyard - and secondly, we don't "go in" to one another. We meet on the street, drink coffee, eat breakfast on Sunday mornings, etc., in a very informal unarranged way, but we don't find it necessary to invite the neighbors in. Ever! Except for taking a turn at being host for a monthly meeting during the winter half of the year. In the summer we have our meetings out on the street. Also, the children play there much of the time, but they can also go out the backdoor to play out-of-doors.

When a neighbor knocks on the door we most often both go out unless it is very cold. We don't find it necessary to invite neighbors in for dinner during the long winter months when we wouldn't ordinarily meet in a normal row-house or detached house situation. We meet all year round.

At New Esle or Gardsakra, as it is now called, the glass covered street is almost 400 meters long and the water, soil and air systems are separated from the building framework for reasons of economy, ease of maintenance, etc.

Each apartment has its own private backyard or a roof terrace. Most also have a semi-private front yard along the glass covered street.

The temperature difference between outside and inside follows a pattern that is a little different from Tarnan. Because of the large volume of air enclosed in the glass room it is usually cooler inside on a warm day. And when the temperature sinks down toward freezing the heating system will keep the temperature at plus 5°C. Semi-tropical plants can be grown all year round. ■

Lynn Lake Development Corporation — Model for Canada.

(From Vol. 1, No. 1 of *Groundswell*, Newsletter of the Canadian Association of Single Industry Towns).

The Northwest Manitoba Development Corporation has two unique features. First, Sherritt Gordon Mines Ltd., will be make a capital contribution to the Development Corporation and has appointed a senior executive to sit on the Board of Directors. Secondly, the Board of Directors is comprised of representatives from two "mining communities" and seven neighbouring "native communities".

This partnership, in developing a "Success Model" for Development Corporations in Canada, is also extended to the Federal Government and the Province of Manitoba. The Honorable Flora MacDonald, Minister of Employment and Immigration has provided the \$100,000. grant to get the Corporation off the ground and has also provided up to \$4. million to Sherritt Gordon Mines Ltd., to help bridge the gap between the closure of Fox Mine in November of 1985 and the opening of the new MacLellan Gold Mine in May of 1986. Part of this \$4 million will be used to help develop new business in the region. The Province of Manitoba has made a \$2 million dollar loan to Sherritt Gordon Mines Ltd. to help with the development costs of the new MacLellan Mine. Notably, the provincial government has taken a bold new step and given new hope for development in this region by asking that the loan be repayable to the new Development Corporation.

Dennis Young, President of the Canadian Association of Threatened Single Industry Towns is the Project Manager for this exciting new venture and says, "The partnership we have formed between the communities, the company, the unions, the Province and the Federal Government is the first of its kind in Canada and will undoubtedly lead to one of the most successful regional development initiatives ever undertaken." Young went on to say that the development strategy calls for using the strenght of the new gold mining developments in the region to build strong diversified secondary industries over the next five years. Young said, "It is the first true test of the "bottom-up" planning process our Association has been fighting for."

MID-CANADA DEVELOPMENT CONCEPT STILL ALIVE - BUT BARELY

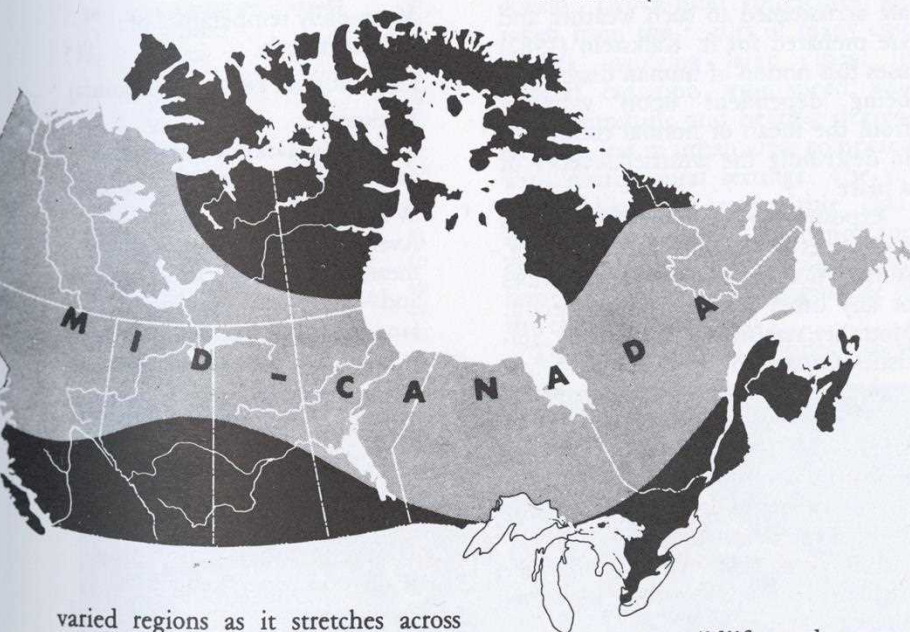
(Noted Author Richard Rohmer told Winter Cities Forum 86 his dream of creating a huge belt of development in Canada's Mid-North had been promoted "Before Its Time", but that at least one Canadian leader is still interested in the project. Following are excerpts from his luncheon address).

"The Mid-Canada Corridor is a green forest that overlays a million square miles out of the roughly four million that comprise the Canadian mass. This is an enormous area. It is habitable, sparsely populated, has abundant water supplies in all its

and the nation. Also because of greater fragility of the natural environment in a more northerly region, special provisions would need to be made to protect the environment. Long term planning would be required with co-ordination between various government levels, departments and agencies.

It was proposed that the Federal government accept leadership in a program of development:

- that would promote a vigorous, attractive way of life for the citizens of Mid-Canada;
- that would permit the designation of development areas, conserva-



varied regions as it stretches across Canada from the Pacific shores of upper B.C. and Yukon to Newfoundland."

Organized by Rohmer and supported by provincial governments, corporations, universities and others, a two year study of a Mid-Canada Conference was kicked off in Thunder Bay in 1969. At a wrap-up session in Montreal in 1970 the consensus was that planning, development and research in the Mid-Canada Corridor were unco-ordinated because of jurisdictional and other factors, but whatever was done to develop the area would be of great importance to Canada and the world.

Policies and plans were needed that would permit Indian, Metis and Eskimo populations in the area to fulfill themselves and be a contributing force to the future of the region

tion areas, wildlife and game preserves, and, if called for, the location of main regional service centres;

- that would provide for the development of integrated transportation and communications systems.

However, Prime Minister Trudeau and the Federal Government had been cool to the proposal. "There was never any official response to what had taken an enormous amount of money and effort to produce," Rohmer declared.

"On the other hand, all of us involved in the conference had the satisfaction of knowing that the awareness of the Mid-Canada region in the minds of the people of Canada had been substantially enhanced. To that extent, I think all of us felt that

we had made some contribution to a better understanding of the present and a better understanding of the future that this country might enjoy if it was able to put its collective mind around the incredible potential of Mid-Canada."

What of the future of the Mid-Canada proposal? "There is one man whom I know and who, of his own motion, has recently expressed an interest in the Mid-Canada concept and the report. He is a man of tremendous energy and a man who could marshal the resources necessary to put something together. He is a man who recognizes that this is a nation with few goals — perhaps none at all — which serve to unify it or to uplift its people, or to bring them together in a common cause.

"And he also realizes that the goal of maximizing the opportunities for the Mid-Canada region that would be to the advantage of the people of Canada South is of significance and value. He understands that the studies and findings and recommendations of that group that came forward fifteen years ago might have ingredients and substance that will transcend the bearpit politics that are so characteristic of government in Canada today. That man is Hon. Sinclair Stevens. ■

Canadian Medical Establishment Neglecting new Discoveries

Dr. William Cochrane, president of Connaught Laboratories Ltd., told an audience in Winnipeg recently that Canada has not taken advantage of one billion dollars spent on medical research in the past ten years." In contrast to countries such as Sweden, Switzerland, Japan and U.S., Canada's efforts in transferring such discoveries for commercial development have been poorly orchestrated," he stated.

He urged formation of a task force created by Canada's Medical Research Council to attempt to bridge the gap and that a "research innovation development program" be instituted. Advancing science and technology to boost Canada's economic growth has been largely ignored in the past, he added.

UNDERSTANDING WINTER CLIMATE

by David W. Phillips,
Canadian Climate Centre, Environment Canada, Downsview, Ontario

Canada is much more than a cold snowy forest. It is a vast territory stretching across 5½ time zones and covering more than a quarter of the Western Hemisphere. Vancouver is closer to Mexico City than it is to Halifax, and St. John's nearer to Moscow than to the Beaufort Sea. Not surprisingly, Canada has a wide range of climates, including polar ice-cap, semi-desert, maritime, Mediterranean, and dry and humid continental. Each climate is characterized by four seasons with varying lengths. In the settled south, there are places where cold winds, slush and blowing snow may never occur during the year, and other places where winter is the longest season, even in the mildest year . . .

Locally and globally some seasons and years are colder, warmer or stormier than others. Seventeen years ago Edmontonians received certificates for surviving a record cold winter - 26 consecutive days with below zero (°F) and that was only their fourth coldest since 1881 (103 years of record). In 1984 these same people had the balmiest January to March period on record, more than 7 degrees above normal and milder than Toronto that year. Variability is a normal characteristic of climate. . .

There is strong evidence to suggest that residents in most climates become adjusted to the weather norms in their region. Large deviations from normal occur from time to time. It is then, when conditions get uncomfortable and stressful. For example, if it were -10°C with light snow and a wind speed of 8 km/h at Vancouver on a particular winter day, this would represent a most uncomfortable and dangerous situation and Vancouverites would be suffering accordingly.

However, a similar situation in Edmonton or Winnipeg would be relatively common to most natives who are accustomed to such weather and are prepared for it. Kalkstein (1982) uses this notion of human discomfort being dependent upon variation from the mean or normal conditions in describing the weather severity of a place . . .

Exposure to extreme cold claims more lives in Canada than lightning, storms, floods, heat waves, tornadoes or any other weather phenomenon. Mortality statistics, compiled by Statistics Canada over a recent 15-year period, show a total of 1,621 deaths attributed to "excessive cold" for an average of 108 deaths per year or about 0.5 per 100,000 persons. Cataclysms - a composite category including deaths caused by storms, floods, earthquakes, tidal waves and other natural events - claim only 17 Canadians a year. . .

In 1984, Phillips (the author of the paper) and Crowe developed the climate severity index, a human climate classification that describes in a single number many of the unfavourable (uncomfortable, depressing confining and hazardous) aspects of the Canadian climate. Extremeness of 18 climate parameters, including windchill, humidex and length of winter/summer are combined into an index that ranges from 0 to 100. The index has proven quite popular as a guide for those selecting the more amenable climates for recreational and retirement living, for those employers concerned about the timing of outdoor activities and performance, and for workers seeking fair and equitable remuneration for working outdoors. . .

TABLE 1

Weighting Assigned to the Factors and Subfactors Composing the Winter Climate Severity Index

A. Discomfort Factor (400 points)	
	Points
Wind Chill	
Mean percentage of time in January that wind chill exceeds 1400 W/m ²	170
Length of Winter	
Number of months with mean daily temperature less than 0°C	115
Severity of Winter	
Mean daily temperature of coldest month	115
B. Psychological Factor (100 points)	
Darkness	
Increasing darkness factor with increasing latitude	55
Wet Days	
Average number of days with measurable precipitation (rain and/or snow) in December, January and February	45
C. Hazardousness (100 points)	
Strong winds	
Mean percentage frequency of January wind speed equal to or greater than 30 km/h	34
Blowing Snow	
Absolute frequency in 10 years of the number of hours with blowing snow	44
Snowfall	
Mean winter snowfall (cm)	22
D. Outdoor Immobility (100 points)	
Freezing Precipitation	
Absolute frequency in 10 years of the number of hours with freezing precipitation	67
Snowfall	
Mean winter snowfall (cm)	33

Table 2 shows winter severity values for Canada's 24 largest cities. For instance, Toronto with 34 points and Halifax with 38 have only moderately stressful winter climates, whereas St. John's (50) and Montreal (47) are more uncomfortable. Winnipeg has the highest index value (62). Victoria with 8 has the lowest index. It is noteworthy that Edmonton's three airports (International, Nnamo and Municipal) have winter climate severity values of

54, 52 and 49, respectively - an indication of the degree of moderation provided in an urban setting.

TABLE 2

Winter Climate Severity Index for Metropolitan Area* Arranged in Decreasing Order of Population (1981 Census)

Population Rank	Metropolitan Area	Severity Index
1	Toronto	34
2	Montreal	47
3	Vancouver	10
4	Ottawa-Hull	46
5	Edmonton	49
6	Calgary	44
7	Winnipeg	62
8	Quebec	56
9	Hamilton	34
10	St. Catharines-Niagara	36
11	Kitchener	37
12	London	38
13	Halifax	38
14	Windsor	29
15	Victoria	8
16	Regina	61
17	St. John's	50
18	Oshawa	37
19	Saskatoon	57
20	Sudbury	53
21	Chicoutimi-Jonquière	60
22	Thunder Bay	49
23	Saint John	44
24	Trois-Rivières	52

*Note:

These values are estimates for central city locations. In some cases, there are significant differences between these and the values calculated outside the city at the airport.

Where there is a cluster of buildings, expansive asphalt and concrete surfaces, and a concentration of people in small areas, local and regional climates are greatly changed. Urban areas differ from their rural counterparts in atmospheric pollution, surface materials, surface geometry and heat and moisture sources. In turn these affect climate elements, eg., radiation, precipitation, runoff, visibility, wind and temperature. Table 4 summarizes the influence of urbanization on several climate elements for the year and for the winter season. Urban-rural differences are taken from the results of many case studies involving large cities. In general, radiation, wind speed, visibility, sunshine and heating degree-days are less in urban areas compared with nearby rural settings. The reverse is likely for temperature, cloudiness, thunderstorm frequency and air pollution. For precipitation, however, the sign and magnitude of the change is uncertain . . .

The greater warmth of cities relative

to their rural environments has some advantage in cold climate cities by reducing wind chill, snowfall and snow cover. On the economic side, snow clearance costs should be less. It should also reduce heating requirements in buildings by as much as 13% . . .

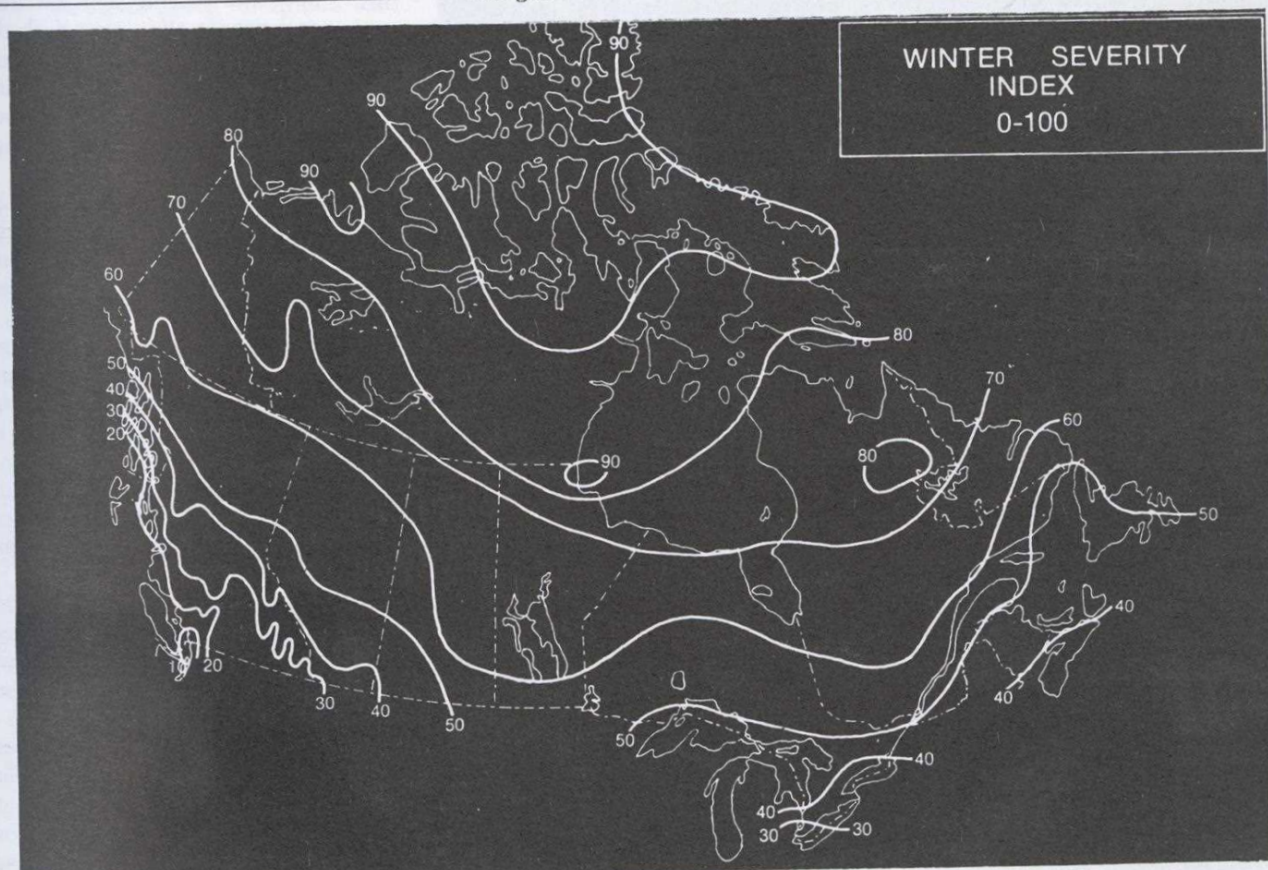
Planning With Climate

Until recently, most architects, designers, planners, developers and contractors were oblivious to the implications of climate in making cities, new communities and buildings more livable, as well as improving their socio-economic performance.

When climatology is considered in the planning or design phase, it is usually directed at reducing or eliminating the adverse effects of climate extremes. Seldom do we take advantage of the "free" aspects of climate - the sun, brightness, cleansing rains, and fresh, ventilating winds . . .

There are many good reasons for selecting sites with climate in mind. Siting relates to energy conservation, air quality management and comfort and safety. In cold climate localities, sites can be selected to minimize the accumulation of snow and to protect entrances and windows from prevailing cold winds.

A structure must be able to withstand the forces that can reasonably



be expected to occur over its lifetime. Over-design can cost millions, under-design can threaten lives. The climatologist provides climate risk values that are just right for safe and economic design and that meet the comfort of the occupants. From the safety aspect, the forces of prime concern are wind, rain and snow, and atmospheric pressure. Extreme events are very important but are rare. The building operator is much more concerned with steady wear and tear during the general run of climate (McKay, 1983).

Construction is highly weather sensitive. Examples include high winds that concern crane operators, soil moisture excesses that affect trafficability, and temperature extremes and precipitation occurrence that may influence scheduling of workers pouring cement and that may effect the curing of concrete. Job site safety and worker performance are crucial factors that are controlled to a major degree by weather.

Following completion of the building, maintenance costs and energy bills are of interest to the operator as is the comfort within the building and outside in the immediate vicinity of the building . . .

TABLE 3
Average Effects of Urbanization
on Climate Elements

Elements	Urban-Rural Difference	
	Annual	Winter
Solar radiation on horizontal surface	-22%	-34%
ultraviolet	-15%	-30%
Temperature mean	+1.0°C	
minimum		+2.0°C
heating degree-days	-10%	
Precipitation	+5 to 10%	
rainfall	+14%	13%
snowfall	±10%	±10%
rain days	+10%	
snow days	-14%	
Wind speed + mean	-20% to -30%	-20%
gusts	-10 to -20%	
calms	+5 to +20%	
Cloudiness frequencies & amount	5 to 10%	+5%
fog frequency	+60%	+100%
Humidity relative	-6%	-2%
Visibility frequency	-25%	-34%
Sunshine duration	-5 to -15%	
Thunderstorm frequency	+16%	+5%
Atmospheric pollution particulate matter	+5-10 times	
gases	+2-200 times	

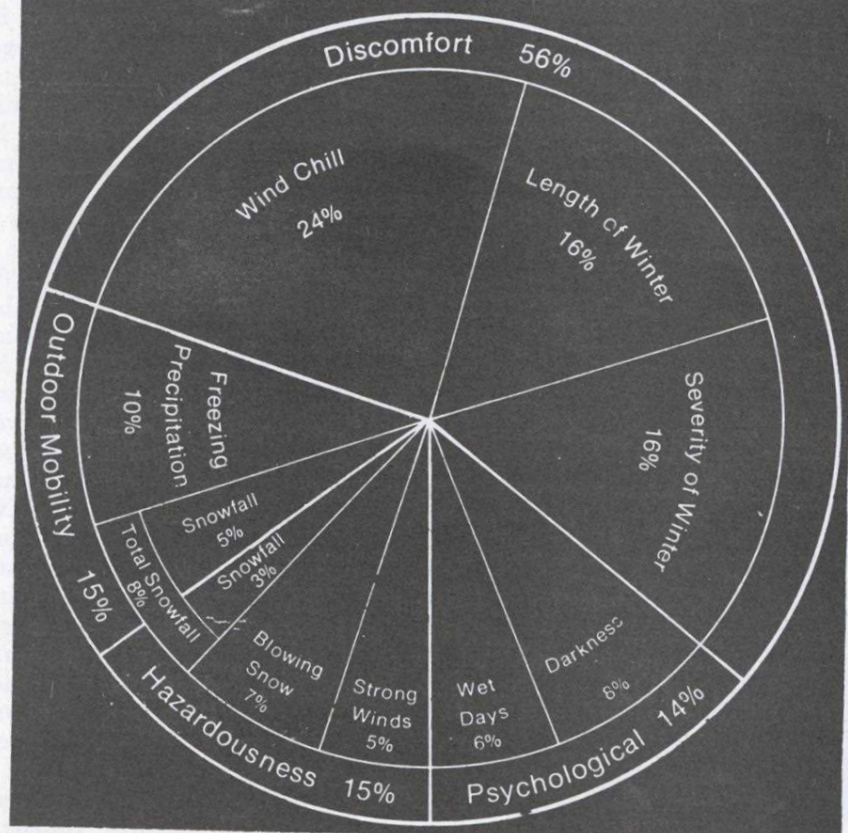
Urban Planning and Climatology

Much has been done to enhance comfort and reduce energy costs at the individual building level. Much less has been done to humanize the environment in a climatically responsive manner at the neighbourhood or city level. There are, however, some good examples of new settlements in Canada where aspects of the atmospheric environment were considered in the design and development of the town. Fermont, Quebec and Kitimat, BC are the best-known examples. While there might be some new towns built in Canada in the future, most urban planning will apply to re-development of existing areas.

By injecting some climatological sense into the urban planning process, much of the deleterious effect of climate extremes can be minimized while at the same time, securing maximum comfort and improving socio-economic performances. Examples of the sensible use of climate knowledge applied to urban-scale design follow:

- (i) planting coniferous trees can beautify streets year-round and at the same time provide effective shelter from accelerated city winds and blowing and drifting snow.
- (ii) adequate spacing between cities and proper alignment with the prevailing wind may avoid cumulative pollution build-up and inadvertent fumigation of one city's plume onto another one downstream (Oke, 1976);
- (iii) in some settings, locating the airport on a plateau above the fog-formation level should result in far fewer flight interruptions;
- (iv) knowledge of prevailing wind direction is crucial in developing landuse plans, eg., industrial parks leeward or downstream of residential areas;
- (v) prohibiting development on the floodplain will reduce local flood losses and reduce the flood potential downstream;
- (vi) radial treed boulevards, roof gardens and grass between paving stones in parking lots derive benefits from climate processes (Findlay, 1976);
- (vii) city greenery (parks, grass, trees) provides welcome shade in summer, shelters pedestrians in winter, acts as an effective snow fence, cuts city noise, filters out

PERCENTAGE CONTRIBUTIONS OF EACH OF THE WINTER SEVERITY FACTORS



- some kinds of air pollution, and reduces rainfall runoff (Findlay 1976; Oke, 1976);
- (viii) street and building orientation can be designed to enhance natural ventilation or prevent natural air passages from being blocked and prevent the canyon effect of winds (Findlay, 1976);
 - (ix) orientation of major thoroughfares can be planned so as to eliminate vehicle air exhaust (Oke, 1976);
 - (x) restricting industrial operations under certain weather conditions can alleviate problems with ice fog and air pollution;
 - (xi) proper designing and planning can avoid mutual shading of buildings and maximize solar energy potential (Oke, 1976);
 - (xii) earth tones for paving materials will absorb solar radiation and promote self cleaning to melt snow and ice and keep the pavement dry (Kehm, 1985);
 - (xiii) storm water retention ponds can lessen the impact of flooding from short duration intense rainfall and provide recreation facilities year-round (Kehm, 1985);
 - (xiv) valleys and slopes are subjected to the effects of air drainage and possibly strong mountain and valley breezes; sites in deep valleys have a shortened period of possible sunshine in winter (Critchfield, 1983).

Information/Models/Analysis

In practice, determining design criteria is a joint task involving the building climatologist and the building scientist or architect. Climate elements of use by the building trade include dry-and wet-bulb air temperature, wind speed and direction, solar radiation, soil temperature, precipitation, and derived values such as degree-days. This information is usually computed from climate data contained in national archives. Design criteria desired for winter season performance and operation of buildings include information on: snow loads on roofs, snow drifting around buildings, ice loads on structures, freeze-thaw cycles on building materials, frost heave and soil moisture on foundations, freezing of pipes, precipitation penetration, air leakage, material corrosion, and air ions on health.

The architect needs data for different times of day throughout the year. Also required is information on

the duration of a given condition, eg. average duration of cold spells below -18°C , average wet or dry spells, etc. Statements of means and extremes are no longer sufficient for the requirements of the building designer. Frequencies and sequences of elements, and combinations of climate elements are required. They can be presented in the form of maps, graphs or tables. For a number of purposes the return period of some extreme event is needed. For example, a wind speed of 100 km/h lasting for a least one hour is likely to occur only once in 50 years.

In most branches of applied climatology, communications between the potential user and the supplier of data/information is not as good as it might be. Exceptions include the aviation industry and agriculture where climate services are used without persuasion. Why not in architecture, civil engineering and urban planning?

Realization of the full potential of climatology to the optimization of our cities and buildings requires fully collaborative working partnership in which each learns something of the others discipline and acquires an appreciation of their problems.

Making climate design data available in convenient, relevant, digestible forms and making the urban professional aware of the nature, availability and potential of climate information will accelerate acceptance of climatology by the industry. That, in turn, will lead to more economical, safer, more energy efficient and more comfortable communities.

Climate is changing

Recent scientific evidence suggests that at least in climatology, the past may not necessarily be a key to the future. The increasing concentrations of greenhouse gases are expected to cause a significant warming of the global climate in the first half of the next century. Decision-makers making decisions on long-term projects such as major water resource facilities, coastal engineering projects, energy planning and structural designing in city centres must refine their estimates taking knowledge of climate change into consideration. While major uncertainties exist in the climate projections, the Villach conference statement (UNEP, 1985) concluded that:

"... the understanding of the greenhouse question is sufficiently developed that scientists and policy

makers should begin an active collaboration to explore the effectiveness of alternative policies and adjustments."

Projected temperature increases attributable to the observed increase in CO_2 and other greenhouse gases are up to 5°C in winter for central Alberta (Hengeveld, personal communication). This would produce winter temperatures for Edmonton by the year 2030 in the range of temperature what is today normal for locations along the Alberta-Montana border - a distance of about 200 km. While warming is something future generations could look forward to, it does not present the whole picture. Modelled results also point out that along with the warming will be increased climate variability. ■

Food Grade Salt Activates Heating Pad

On display at FORUM 86 was a self activated heating pad sold under the trade name, "Thermo Pad" and manufactured by Hood Thermo-pad Mfg. Ltd., Edmonton. The pad is a heavy gauge vinyl pouch manufactured in a variety of sizes and shapes and containing Sodium Acetate which converts from a liquid to a solid at 54°C (130°F). The salt remains in liquid form until by use of a trigger mechanism the conversion to solid forms takes place. After use, the heating pad may be melted back to a liquid by placing in boiling water to be ready for re-use. Handled in this way it can be used over and over many times. So far it has principally been used in hospitals as a heating pad that requires no plug in, but use in outdoor clothing would appear to be a possibility.

Winter Exodus Higher in Spite of Low Dollar

Statistics Canada reports 726,400 Canadians took vacations in the U.S., mostly in the sun belt, in January this year, up 4.8 percent from the comparable figures of January 1985 in spite of the considerable decline in the value of the Canadian dollar. This is 2.8 percent of Canada's population. In the same month, 365,300 Americans vacationed in Canada — about .16 of U.S. population—but an increase of 18.3 percent from January 1985.

LONG TERM PLANNING, CLEAR GOALS, CREATION OF DOWNTOWN "PEOPLE PLACE"

Forward looking Grande Prairie, Alta., (pop. 25,000, "Biggest Canadian City North of 55") put its plans and hopes on the line as a "demonstration city" at Forum 86 with the support of Alberta Ministry of Municipal affairs.

Top-ranked experts visited the city in advance of the Forum to size-up its programs and problems and one entire Forum session was devoted to hearing the recommendations of the panel, the reaction of city officials and comments of the large audience that included a number of architects and planners. The panel of three experts consisted of Arni Fullerton, president, Winter Cities Conference Corporation, Edmonton, chairman; Ernest Balmer, Toronto developer; and Lawrence Alexander, Editor of "The Downtown Idea Exchange", New York.

Following Forum 86, Fullerton directed a letter and a four-point recommendation to Mayor E.J. Blais, of Grande Prairie summarizing the consensus of the panel of experts and the demonstration session.

Eight Scandinavian Architects/Planners Address Toronto Workshop

Eight visiting speakers, en route home to Scandinavia after participating in Winter Cities Forum 86 in Edmonton, stopped off in Toronto to make presentations to a Post-Conference Workshop organized by Toronto LWCA chapter. Proceedings of the workshop will be published as quickly as its availability can be arranged. It will be announced in Livable Winter Newsletter. Seven Canadian and U.S. speakers also participated.

More than 60 attended the event held Feb. 21 and 22 in University of Toronto Faculty of Architecture theatre.

Theme of the workshop was: "Curing the Common Cold, Urban Design Challenges for the Livable Winter City." The organizing committee was headed by George Stockton, of Moriyama and Teshima, Architects and included Grace Strachan, Stephen Blevins, and Peter Shore.

Recommendations:

1. that Grande Prairie council with the assistance of consultants create a "development package" for the central section of downtown core;
2. that council take leadership in locating in this central section new facilities such as library or town offices that would strengthen it as a focal point and gathering place;
3. that the province be approached to also include its offices and assets in the development area as possible;
4. that Grande Prairie ask the province to re-examine its legislation to enable some simple solutions such as "doorways between shops" now not permitted; also, to improve incentive programs possibly permitting "tax increments" as in some U.S. states allowing some portion of property taxes in special core areas to be used to provide public amenities such as "indoor town warmspots", farmers' markets or socializing places;
5. that council develop plans for blocks adjacent to downtown with

The Scandinavian speakers were: From Finland: Kari Rauhala, Architect and Senior Researcher, Technical Service Centre, Helsinki; Jorma Manty, Architect, University of Tampere; Marikka Rimaaja, Planner, Helsinki City Planning Office; From Sweden: Peter Broberg, Architect of the Foundation for Industrial and Ecological Biology; Ann Thulin, Architect of Landskronne Gruppe; Boris Culjat, architect of Stockholm; and from Norway, Harold Hoyem, Architect and Professor of Architecture, University of Trondheim.

Other speakers: Jaff Nash, Sociologist, Professor of Sociology, Macalaster College, St. Paul, Minn.; Michael Hough, Landscape architect, Hough Stanbury and Assoc.; Charles Simon, Simon Architects and Planners; Patrick Chen, Planner, City of Ottawa.; Carl Knipfel, Planner, City of Scarborough; Dr. Michael Persinger, Biometeorologist Laurentian University, Sudbury (unable to attend through illness but who forwarded his paper) and Prof. Neil Evernden, Environmentalist, York University Department of Environmental Studies,

guidelines as to types of projects preferred for these areas.

The report notes that local business men are holding back on development plans because of uncertainty as to what uses will be permitted in the downtown. Suggested amenities to be encouraged would be such as to bring people and activity to the downtown core. Such might be a hotel and convention facility, a library, medium density housing, town offices, a farmer's market, small shops, a "plus-15" to provide protected pedestrian circulation and some type of park or assembly space. The "Plus-15" system could be built on a block-to-block basis as in numerous smaller communities and sections could be proceeded with immediately. Also encouraged, would be a 10-block core-area identification program for the benefit of the large number of visitors who come regularly to Grande Prairie from the surrounding Peace River area.

All of these and other recommendations would provide "an attractive warm 'peoples' place' in the very heart of its vast and rich region." ■

Spokane Skywalks Helped Combat Urban Sprawl

—Michael Owen

Downtown Spokane captures 25 to 30 percent of the city's retail sales compared with 10 percent in some other cities. Part of the credit, Asst. Prof. Michael S. Owen of Washington State University told a session at Winter Cities Forum 86 goes to the expanding skywalk system.

Bridge crossing counts show Spokane's system is used much more heavily per kilometer than Minneapolis' system. Both were privately developed. Questions are now being asked as to the future of the system. One complaint is that street level retail operations have suffered as a result of the creation of the skywalk network. Civic leaders are now wondering if the system should be more closely integrated with the public pedestrian and transit systems and whether a broader set of public-related objectives "might result in still greater benefits obtained from the skywalks."

"PLUG-IN" PARKAS

— One of Many New Ideas In Outdoor Clothing

(Dr. Susan Watkins, Associate Professor of Apparel Design at Cornell University, Ithaca, N.Y., described remarkable new developments in outdoor clothing technology at Forum 86).

Clothing "the nearest environment" must provide insulation and protection and the key to insulative value is the proportion of unmoving air incorporated in the fabric. "We must think of fabrics," she declared, "as mixtures of air and fiber in which fiber dominates by weight and visibility but air dominates by volume".

Wool and down are good natural insulators because of the crimped or podded nature of their fibers which trap myriads of tiny air cells. Man-made fabrics can also be crimped or contain hollow stems or cells to add insulative value. Thin layers of foam are being increasingly used in outdoor wear as insulation. Closed-cell foam is superior to the open-cell type. Some new types of hiking jackets are inflatable being connected by a tube to bellows built into the heels of the wearer's hiking boots.

Garments, to be comfortable, must not fit tightly and must protect against penetration by moisture. Moisture nullifies the insulative value of fabrics. New types of fabrics allow the body to breathe through a multitude of tiny pores. But the pores are so small water droplets are unable to pass through. Rain and wet snow are thus shedded. However, body moisture or perspiration turned by body heat into air dampness, can penetrate the fabric and be dispersed. Some fabrics, including polypropylene, polyester and silk, have the characteristic of "wicking" body moisture, drawing it away from the skin to be dispersed through outer layers of the garment.

Vapor barriers are combined with "wicking" materials to make clothing waterproof and windproof. Aluminized materials may provide the impermeable layer, and such gar-

ments are lightweight, supple and quieter.

There has been much experimentation with electrically heated garments for industry and armed forces—from diving suits to gloves. Electrically heated socks for hunters and outdoorsmen and a line of electrically heated garments for motorcyclists are being sold. Some fabrics have electric heating wires woven into them and some experimentation has been done on using tubes that circulate hot water through garments, but both these techniques are at an early experimental stage.

Dr. Watkins predicts that the future will see "body powered" clothing that responds to the needs of each part of the body. "We could be wearing clothing that automatically sends bursts of heat to those parts of the body that need it, or even stimulates the flow of blood to specific parts of the body."

Another new idea is the use of chemical reactions to provide heat in garments. Vests can be self-heated when chemicals within them are triggered, and may be carried in glove compartments of automobiles in case of emergencies. In Sweden charcoal pellets have been used to provide heating for garments with the heat produced in a small lightweight furnace zipped into the garment.

"It is conceivable that provisions could be made to "plug in" electrically heated garments into outlets in phone booths or even bus stops. If we take this idea and add it to the idea that garments could be designed to respond through a computerized intelligence to differing needs for warmth, we have a very interesting program, designing for people in winter cities." Solar energy cells are a possible source of electricity for "plug in" garments.

(Dr. Watkins is author of the book, *Clothing, The Portable Environment*, 254 pages, published by Cornell University, hardcover, \$27.95 U.S.; paper, \$16.95 U.S.) ■

New Council Monitors Environmental Impact

Canadian Environmental Assessment Research Council, formed in Jan. 1984 to advise "governments, industry and universities on ways to improve . . . environmental impact assessment" has produced a brochure asking for comments and suggestions that could be incorporated in future research agendas.

Correspondence is to be directed to: Secretariat, Canadian Environmental Assessment Research Council, 13th floor, Fontaine Bldg., Hull, Que. K1A 0H3.

Priority research programs being undertaken by the Council include work on social impact assessment focussing on developing linkages between the biophysical, economic and social planning processes. "The Council has recognized that managing the biological and social effects of multiple developments will require a more comprehensive approach than merely adding together single project assessments."

Earth-Sheltered Buildings Conference at Minneapolis

"Advances in Geotectural Design: The Second International Earth-Sheltered Buildings Conference" will be held June 15 to 19 at University of Minnesota, Minneapolis. The first international conference was held at Sydney, Australia in 1983. Five American universities and seven associations are co-sponsors. More than 200 delegates from 20 countries are expected to attend. An international advisory group includes representatives of the Soviet Union, Sweden, Japan, South Korea, West Germany, Britain, Columbia, China and U.S.

Three principal themes for the conference are: Vernacular Approaches, Theoretical Developments and Contemporary Practice. The Conference hotel will be the Radisson University on University of Minnesota grounds.

For information write to: Second International Earth Sheltered Buildings Conference, c/o Theresa Duty, Department of Professional Development, 315 Pillsbury Dr. S.E., University of Minnesota, Minneapolis, MN, U.S.A. 55455. Tel: (612) 373-3188.

LWCA NETWORKING — SURVEY FOR MEMBERSHIP DIRECTORY

(For publication in future directories appearing in LIVABLE WINTER NEWSLETTER).

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(FIRST) (MIDDLE) (FAMILY)

MAILING ADDRESS:
(NO.) (STREET) (CITY)
.....
(COUNTRY) (POSTAL/ZIP CODE)

BUSINESS FIRM:

TELEPHONE:
(BUS) (RES)

● CIRCLE TO INDICATE YOUR MAJOR FIELD OF TRAINING AND EXPERIENCE:

- | | |
|--|--|
| ☐ ANTHROPOLOGY | ☐ INTERIOR DESIGN |
| ☐ ARCHITECTURE | ☐ LANDSCAPE ARCHITECTURE |
| ☐ ARTIST | ☐ MEDICINE |
| ☐ CLIMATOLOGY/METEOROLOGY | ☐ PSYCHOLOGY |
| ☐ ECONOMICS | ☐ PSYCHIATRY |
| ☐ EDUCATION | ☐ PUBLIC ADMINISTRATION |
| ☐ ENERGY CONSERVATION | ☐ SOCIOLOGY |
| ☐ ENGINEERING | ☐ URBAN AFFAIRS |
| ☐ ENERGY CONSERVATION | ☐ URBAN DESIGN |
| ☐ GEOGRAPHY | ☐ URBAN & REGIONAL PLANNING |
| ☐ HUMAN FACTORS | ☐ OTHER |

● CIRCLE UP TO THREE TO INDICATE YOUR AREA(S) OF INTEREST:

- | | |
|--|--|
| ☐ ARTIST | ☐ HOUSING |
| ☐ AESTHETICS | ☐ HUMAN FACTORS |
| ☐ AGING | ☐ OFFICE PLANNING |
| ☐ CHILDREN | ☐ PARTICIPATION |
| ☐ CLIMATE/WEATHER INFORMATION | ☐ PRECEPTION/COGNITION |
| ☐ COMMUNICATION | ☐ PLANNING |
| ☐ DESIGN METHODS | ☐ POST OCCUPANCY EVALUATION |
| ☐ ENERGY | ☐ PRISONS |
| ☐ ENGINEERING | ☐ PROGRAMMING |
| ☐ ENVIRONMENTAL PROCESS | ☐ RECREATION |
| ☐ ENVIRONMENTAL STRESS | ☐ SCHOOLS |
| ☐ FIRE SAFETY | ☐ SOCIAL IMPACT ASSESSMENT |
| ☐ FUTURISM | ☐ SOCIAL BEHAVIOUR/PERSONAL SPACE |
| ☐ GRAPHICS | ☐ TRANSPORTATION |
| ☐ HANDICAPS | ☐ URBANISM |
| ☐ HOSPITALS | ☐ INDUSTRIES |
| | ☐ OTHER |

● PLEASE WRITE A 100 WORD STATEMENT ON YOUR CURRENT PROJECTS OR RESEARCH.

LETTERS . . .

LETTERS . . .

Urges Two-Way Flow of Ideas Between Native Communities and LWCA

To the Editor:

Northern cities may be designed more or less well to accommodate European peoples who have moved into cold climates. But the people who have always lived there—native Indians, Inuit, Sami (Lapps) and others—have a whole range of living experience from which the wise northern resident quickly learns. The prevalence of Inuit parkas in Ottawa, where official business in the north has taught many of us how to dress, is one small example.

Surely a two-way traffic in ideas and assistance is possible between the formally qualified experts of many sorts who make up the Livable Winter Cities Associations and the many small communities and their representative organisations which make up the native north. That north, about 75% of Canada including two northern territories and large chunks of seven provinces, is a land of scattered small villages.

The fact that native housing renewal and community construction programs are often on a sizable scale provides scope for the injection of creative planning design. Government agencies often shake their heads and say that native needs and opinion will reject experiment. What they don't say is what are the alternatives.

As Indian, Inuit and Metis peoples take on more and more of the management, construction and costs of physical facilities through devolution of powers to their local and regional administrations, as well as through the initiatives of local development corporations, the usefulness to them of alternatives to the ways of the past is obvious. Unfortunately, few may be aware of the options and opportunities available.

Native communities are wary. They have been badly mauled by government administrators and, in recent times, by careless or unscrupulous consultants. But, increasingly there are native corporations and organizations ready to deal with outside experts and technical bodies.

The needs in northern communities, where sub-standard facilities and social distress are common, are a national problem. But the resilience and calm of those communities in the face of the dark and cold of winter are no less evident.

Clearly the northern native peoples have a lot to show us about cold weather adaptation and ways of living. Clearly native communities would have much to gain from the availability of expertise such as can be mobilised by LWCA. If the representatives of a few self-confident native corporations could get together with a team of qualified southerners, many good ideas and some pilot projects could result. It's worth a try.

Peter Jull,
Box 1129, Station "B"
Ottawa, ON K1P 5R2

Is LWCA Wasted Effort?

To the Editor:

No amount of effort by LWCA will change my mind about winter. I simply detest it and will continue to escape it if I can find the ways and means to do so.

Mrs. Jessie Matthews,
Winnipeg, Man.

(Ed. Note—LWCA aims not to prohibit people from escaping winter, but rather to make our cities and communities so comfortable, appealing and attractive in winter, we won't feel compelled to "escape". This may not be easy to do and may not be done quickly, but it will never be done if we don't make a start. And when winter is so large a part of our year, it should certainly be worth a mighty try.)

Urges More "City" Displays at Winter Cities Conferences

Sir:

Winter Cities Forum 86 in Edmonton was a delight and really enjoyable. The people, the ideas and the conference organization itself have set a valuable precedent for future gatherings. I am convinced that of all conferences I have attended, this one will lead in the long run to a clearer perception of our environment and greater efforts to civilize what we live in and work with.

The display by the City of Calgary was the only "City" display, per se, at the conference. We recieved a lot of interest. It would have been of greater interest if other cities, such as Sapporo, or St. Paul, or Minneapolis, had displays as well so that delegates could learn from the presentations of other cities' projects, activities and experiences beyond the somewhat ephemeral slide show/talk. I suggest, therefore, that in the next conference, a concerted effort be made to attract and encourage displays by as many Winter Cities as possible.

Don Sinclair, +15 Coordinator,
Development, Land Use and
Planning Division,
Calgary, Alta.

SCANDINAVIAN LWCA | CHAPTER ANNOUNCED

Boris Culjat, Stockholm architect, announced to the closing session of Winter Cities Forum 86 that Scandinavian architects, planners and other speakers attending the Forum had decided to form a Scandinavian Chapter of the Livable Winter City Association. Chapters now exist in Ottawa, Toronto and Edmonton and a half a dozen Canadian and U.S. towns and cities have also indicated interest in forming chapters.

Local chapters can work with local authorities in implementing programs to improve adaptations and attitudes towards winter and severe climate.

Chapters can tune into worldwide research and innovations through their affiliation with LWCA and help to pinpoint local conditions and situations where changes are indicated and then help rally public support for proposed programs.

Scandinavian architects and planners who have indicated support for formation of an LWCA chapter, besides Culjat include: Pelle Hulte'n, Peter Broberg and Ann Thulin of Sweden and Maria Anker, Harold Hoyem, Ane Rodsjo, Anne Grete Hestnips, Oyvind Asckehang and Anne Britt Borge of Norway. ■

Winter Cities Presentation to Hamilton Association

Vladimir Matus, LWCA membership chairman, gave a slide presentation to the Hamilton Association, March 1 on the subject, "The Livable Winter City — an Emerging Challenge". The event was held in McMaster University Medical Centre.

Dr. Leslie Laking, Association president, in a letter to Matus rated the presentation a "highlight of the season."

President Zepic Presentation To Thunder Bay Seminar

Organized by Carol A Rusak, manager of Seminar Centre of Confederation College, Thunder Bay, a one-day workshop on "How to Improve Winter Living in Northern Cities and Communities", was held April 4 at Confederation College. Seminar leader was Ms. Xenia Zepic, National LWCA President. Prof. Norman Pressman, LWCA past

president, also spoke.

The seminar was sponsored by Northern Ontario District of Professional Planners Institute and Ontario Ministry of Municipal Affairs.

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