



Winter Cities

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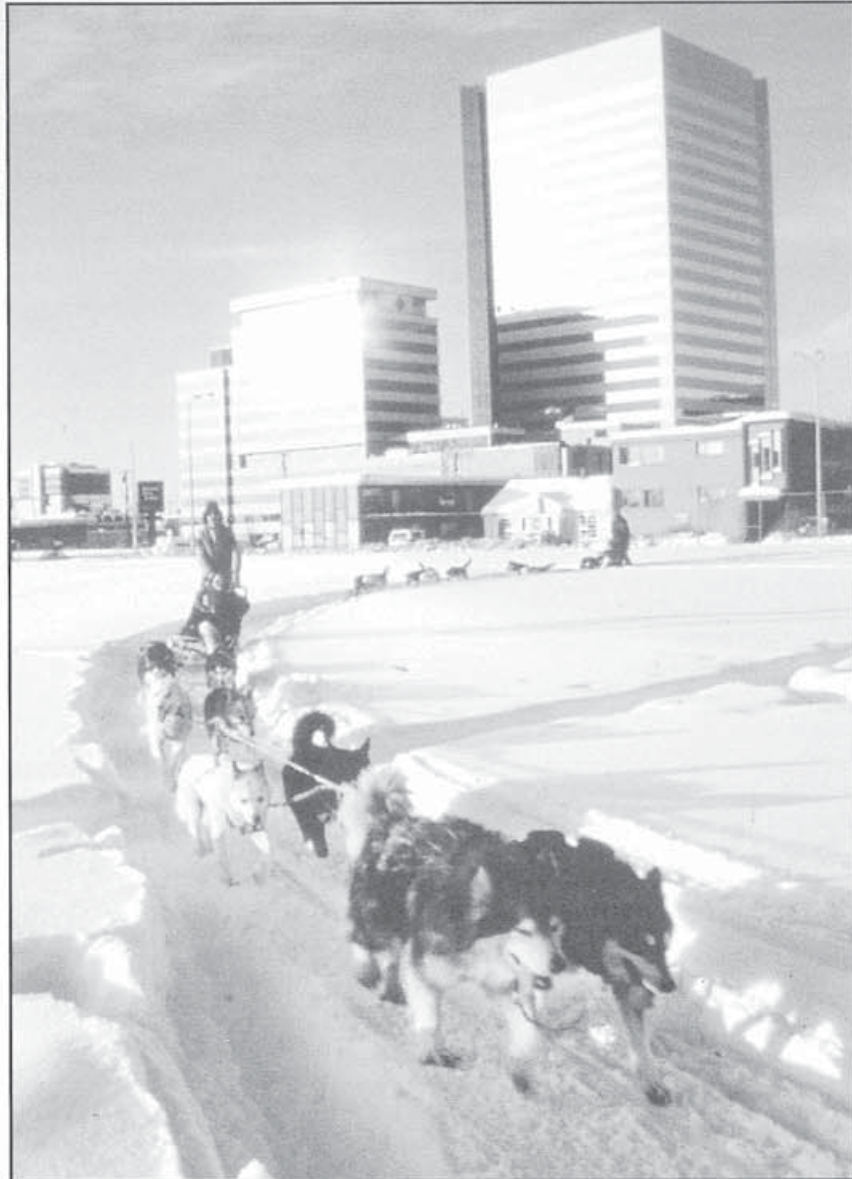


Photo: Courtesy Anchorage Convention and Visitors Bureau

Dog-sledding in beautiful Anchorage, Alaska

Message from the president

The calendar says spring, yet winter declines to release its hold along the south shore of Lake Superior. In the daily complaints heard about our weather, I find wisdom in the thinking of the Sami people of northern Scandinavia. They use eight seasons to define the northern climate. Would a word to describe this season in-between winter and spring help people feel better about this time of year?

The Winter Cities Forum and Exhibition '99 at Prince George, BC was a delightful experience and a celebration of the north's attributes. Congratulations to the many persons who were involved. As with all cities that host the winter cities conference, there will be positive outcomes for the City of Prince George and northern BC region. For both conference organizers and delegates, the coming together of all sectors and interests of northern communities provided exposure to other parts of the northern world. The conference showcased the great potential of the north and the creativity being applied to solve winter city issues.

Quebec City, Quebec, Canada has been selected to host the Winter Cities Forum 2001. Quebec City, the capital of Nordicity, is planning to hold this event during the world famous Carnival de Quebec in February, 2001. The organizational talent and commitment demonstrated by their proposal, the quality of the venue and the charm of Quebec City will make this event great. Congratulations to Quebec City!

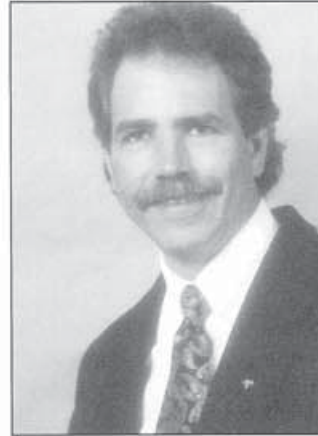
At the Board of Directors meetings held in Prince George, the WCA took action to strengthen our organization. As a result of on-going discussions with our affiliate organizations, Winter Cities Scandinavia and the International Association of Mayors of Northern Cities (IAMNC), we have become the Winter Cities Association of North America. This change will enable the WCA and our affiliated organizations to better focus limited resources and energy. We have established improved lines of communication and defined specific roles with our partners in the winter city movement. Cooperative efforts are underway for upcoming issues of *Winter Cities* and web-site links.

Another important advancement is that a WCA web-site will soon be under development. The Geography/Planning Department at Northern Michigan University in Marquette, Michigan, USA has agreed to take on this task. Our newest board member, Dr. Michael Broadway will be directing this project. Thank you NMU and Michael Broadway for this generous contribution.

On this note, we would appreciate hearing from our readers. We need your input. What can we do to improve the content and delivery of winter cities information? What are the issues we should focus on with a web-site and our current magazine? Please let us know.



Pat Coleman
Winter Cities Association President



Pat Coleman



Winter Cities

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The Winter Cities Association is dedicated to realizing the unique potential of all northern communities. Through publishing, networking, organizing conferences, facilitating research and other means, the Association seeks to make available solutions and to promote awareness of opportunities associated with the winter season.

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NASA Conducts International Winter Testing

BY LARRY COEHOORN, KI SAWYER REDEVELOPMENT TEAM
& VIKKI KULJU, U.P. ENGINEERS & ARCHITECTS, INC.

On January 31st, 1999, a National Aeronautics and Space Administration (NASA) Boeing 757 landed at Sawyer Airport, just south of Marquette, Michigan, USA, accompanied by 46 NASA engineers and aircraft specialists and over 20 engineers from Canada, Norway and France. The group's mission was to assemble data for the "Winter Runway Friction Measurement Program", a five-year effort by NASA, Transport Canada and the Federal Aviation Administration (FAA).

A disproportionate number of aviation accidents occur due to aircraft braking difficulty, directional loss of control, or sliding off the end of icy runways. During snow and ice conditions airport operators use various instruments to determine how slippery a runway is and report readings to the pilots. Unfortunately, the instruments and runway protocol used differ country to country. Two primary goals of NASA's winter testing were to create an international standard of reporting runway conditions to pilots and to reduce traction-related aircraft accidents.

In addition to its airfield capabilities (a 12300 X 150 ft runway and 24,000 sq/ft hangar) and uncrowded airspace, Sawyer was chosen for its winter climate. Mother Nature assisted the team by providing a variety of climatic scenarios to test.

While at Sawyer the international group of experts acquired data on seven different snow conditions and braking data on six different snow conditions. A test site 1,500 ft X 50 ft contained everything from 25 inches of loose snow for the first tests to 1/4 inch of compacted snow toward the end of the tests. Data from the aircraft is compared with ground equipment instruments many airports use to correlate the results.

Upon completion of testing, NASA reported that Sawyer met all their requirements and exceeded their expectations, not only in terms of climate, but also the response of local communities. During free time the team snowmobiled, cross-country skied, and took a horse-drawn sleigh ride. As they frequented local businesses they were welcomed with open arms. As they departed for the NASA Langley Research Center, they brought back with them valuable winter data and a lasting memory of the Upper Peninsula of Michigan and winter at its best.

ICICLES

What's Up in Winter Cities



Photo courtesy Al Wuori

Michigan's latest trail-groomer.

High-tech trail grooming

Snowmobilers may soon be able to enjoy a longer season, on smoother trails, thanks to a new trail groomer being tested in Michigan's Upper Peninsula. The prototype, developed by Michigan Technological University's Keweenaw Research Centre, will turn soft, bumpy snowmobile trails into "snow pavement," designers say. The groomer grinds the snow particles very fine – one millimetre or smaller – which allows the grains to bond together very rapidly," says Al Wuori, a consultant near Houghton, Michigan, which is looking into mass producing and marketing the groomer. Wuori has also worked with similar equipment on runways in northern Greenland and the Antarctic. Phil Quenzi of

Prime Designs in Atlantic Mine is the designer. He told the Daily Mining Gazette of Houghton that the machine is a significant improvement over "drag groomers now used to create snowmobile trails across the country."

Cold weather hotline solves snowy problems

The city of Escanaba, Michigan is taking steps to make taking steps on winter sidewalks a little safer and easier. A hotline has been established so people can call and report unshovelled sidewalks or any city-code violation to city officials. The city promises that all complaints will be investigated within 24 hours. People have 48 hours after a snowfall to clear their sidewalks. If they haven't done so in that time and a complaint is registered on the hotline, Jim O'Toole, city code official, will visit the residence and issue a warning (or a \$50 ticket for repeat

offenders). If the sidewalk is still not shovelled within 24 hours, he hires a contractor to clear the snow, and the resident is sent the bill.

O'Toole says the program is working extremely well. "I've been with City for 10 years," says O'Toole, "and this has been the best year yet." This despite approximately 60 inches of snowfall in the season, double the usual amount.

After a snowstorm, there is an average of 50 calls on the hotline waiting for O'Toole to investigate. "The public has been very receptive," he says. "People like it because they can call anonymously. They can call at three in the morning if they feel like it. It's made things a lot easier."

Kick-sled part of Sweden's image

The kick-sled is nothing new for Europeans, and the rest of the world is becoming more familiar with this old-fashioned mode of transportation, thanks to its incorporation into the Winter Cities 2000 logo.





The kick-sled looks like a chair on two skis, that the rider stands on and swings one leg back and forth to propel forward. On the chair/platform, groceries, packages, or even a passenger can be carried.

The kick-sled was derived from the ice sled, a version without the runners that was pushed along the ice. The design is thought to have emerged in Scandinavia around 150 years ago, and is now used by many people throughout Europe.

The photo here shows Bjorn Rosengren, former Swedish country governor and current Minister of Industry and Commerce, going full speed ahead on a kick sled. For details on Winter Cities 2000, to be held in Lulea and Kiruna, Sweden, Feb. 12-16, check out the web site at www.wintercities.lulea.se or www.wintercities.kiruna.se.

16th Arctic Winter Games

Whitehorse, NWT,
Canada - March, 2000

The first Arctic Winter Games, hosted in 1970 by the City of Yellowknife, began a tradition of northern competition and outdoor tourism. The games have been held every two years since, changing northern hosts each time. The 16th Arctic Winter Games will be held in March, 2000 in Whitehorse, Yukon.

Competitors are expected to come from the Northwest Territories, Yukon, Alaska, Northern Alberta, Greenland and two provinces in Russia: Magadan and Tyumen, to participate in 19 different sporting events and cultural exhibitions. An extremely popular event, the Arctic Winter Games relies on volunteers for its success. It is estimated that more than 1,600 volunteers will be needed for the 2000 games.

Northern Business People's Conference

Tourism Development
in the North May 31-June
3, 1999

ROVANIEMI, LAPLAND, FINLAND

This three-day event will offer attendees the opportunity to learn about tourism development, as they join experts in a wide range of fields. Seminars include: "Northern Tourism-Related Development," "How Does Nature-Related Tourism Benefit Local Community and Government?" and "Marketing Cultural Heritage to Tourists."

Circumpolar Women's Conference

November 18-20, 1999
Whitehorse, Yukon

"Different Lives, Common Threads" is the theme for the first Circumpolar Women's Conference, planned for November 18-20, 1999 in Whitehorse, Yukon. The conference will bring together women from the Circumpolar North to discuss issues of particular relevance to northern women, to examine issues pertinent to circumpolar nations from women's perspectives, and to share ideas about cross-cultural "bridge-building." A secondary goal is to ensure that the discussions and the conclusions of this conference are not lost, but widely disseminated. Organizers envision using this gathering to collect material that addresses the commonalities and diversities of women's lives in the North. The steering group is committed to creating curriculum materials for elementary and secondary school levels (approximately ages 6-18) that will be useful to departments and ministries of education throughout the Circumpolar North. In addition, the group is committed to publish, in more traditional format, conference proceedings to add to the knowledge about women in the North. For more information on the conference, visit their web-site at <http://www.yukoncollege.yk.ca/~agraham/womensconf/>

Thanks, Prince George!

BY ANNE MARTIN



Photo by Katherine Stoddart

The Civic Centre in downtown Prince George provided ideal facilities for the Forum.

Over 400 people – including speakers, delegates, exhibitors, sponsors, organizers and volunteers – met in Prince George, BC in February for the Winter Cities Forum, 1999, the Northern Living Exhibition and the pre-Forum Health Conference. Most were from northern BC, but delegates and speakers also came from other parts of Canada, the United States, Scotland, Japan, the Peoples Republic of China, Mongolia, Greenland, Sweden and Finland.

The four-day event included field trips, plenary sessions and workshops, the trade show and social events. The slogan of the event was: "Set Your Sights on Northern Lights."

Planning for this biennial event began in February, 1997 at the closing of the Forum in Marquette, Michigan, when the Winter Cities Association announced that Prince George had been selected as the next host city. A steering committee and sub-committees reviewed past Forums and agreed that the program quantity in Sault Ste. Marie (1991) and the degree of community involvement in Marquette were examples of what we wanted to achieve.

Advice from previous organizers proved valuable, i.e. to have forestry, our primary industry, as a main focus and to concentrate on marketing the Forum in the region. As most settlements in northern BC have small populations and

are remotely situated, program topics were chosen for their relevance to smaller winter communities.

Key issues for northerners were identified as the program developed. These included the need to find northern, not imported, solutions to northern problems; the challenge for winter communities to remain competitive in a global economy; the need for sustainable resource extraction and responsible land use; and the impacts of climate change in the north. Recognizing the need for a balance between economic, environmental and social demands, the theme chosen was the promotion of a sustainable quantity of life in winter communities. For the workshops, it was

deemed important to emphasize practical solutions and opportunities for northern living rather than academic presentations. This approach was carried through to the Northern Living Exhibition, the Health Conference and the field trips.

The greatest challenges for the steering committee were budget-related. In the months leading up to the Forum, the Provincial economy declined, and there were significant downturns in the forestry industry. The unemployment rate in Prince George (pop. 80,000) rose to 18%, the highest in BC. These developments impacted on our final registration and numbers of exhibitors. Plans were scaled back but sponsors remained generous in their support in spite of difficult times.

The pre-Forum Health Conference, "Building Healthy Northern Communities" was attended by about 75 elected officials and people working in the health and social services professions. Many northern communities are isolated, have



Du Yu Zhu of Harbin, China, was one of many interesting speakers from near and far to make presentations at the Forum.

Photo by Katherine Shoodart

resource-based economies with seasonal employment, potentially dangerous jobs, high costs of living and limited access to health care. Northern winters can limit mobility and community participation. These factors can have a negative impact on health. The workshop looked at ways in which negative effects can be reduced through

health promotion initiatives, the creation of supportive environments, strengthening community actions and developing healthy northern public policy. Discussion took place about health issues for women, aboriginal people, children and the elderly, including mental health and substance abuse issues. Food security and the development of sustainable food systems in the north were also examined.

Several field trips were arranged for the first morning of the Forum. Delegates toured Prince George to look at architecture, recreation and forestry resources, infrastructure and winter city planning. After lunch, Dr. David Foot, noted economist and co-author of the book *Boom Bust and Echo*, gave the keynote address and discussed demographic trends in Canada and the circumpolar regions.

Only a few highlights of the Forum can be mentioned here. Everyone enjoyed the social events, including the opening ceremonies, with a parade of international flags and multicultural entertainment; the Bundle Up Barbecue in the Plaza, the reception at the College of New Caledonia and the closing banquet. At the ongoing Northern Living Exhibition there were several booths celebrating the forestry industry and value-added wood products. The central feature was the "WoodWorks" display which was specially designed for the Forum to showcase wood construction and to promote the use of wood in public and commercial buildings. Communities throughout northern BC were also well-represented and gave



Photo courtesy Anne Martin

The Woodworks display was a highlight of the Northern Living Exhibition.

Winter Cities Magazine Reader Survey

The Winter Cities Association exists to serve as a conduit for information related to the physical, economic and social viability of northern communities. Winter Cities is the primary means of delivering information to our members. We are examining ways to better communicate winter city ideas, and serve our membership. Please take a moment to complete this questionnaire, and mail or fax it to:

**Winter Cities Secretariat, C/o Dr. Terry Weniger, 3330 22nd Ave.
Prince George, BC Canada V2L 1P8 Fax: (250) 561-5829**

1. Please indicate who you are:
 - Student
 - Practitioner/Corporate
 - Academic
 - Government/Political
2. Do you read Winter Cities?
 - All of it
 - Most of it
 - Some of it
 - None of it
3. Do you enjoy the present content of Winter Cities?
 - Yes No
4. Do you have any recommendations for changes in content? Please explain.

5. Is the article length
 - Just right
 - Too long
 - Too short
6. Two issues of Winter Cities are devoted to the Annual Conference. Is there a benefit in devoting two issues to this subject?
 - Yes No
7. Do you think that Winter Cities magazine should be available to audiences outside our membership for a fee?
 - Yes No
8. Do you think Winter Cities should be sold at newsstands?
 - Yes No
9. Do you think Winter Cities should have paid advertising?
 - Yes No
10. Would your organization advertise in Winter Cities Magazine?
 - Yes No
11. Do you see a need for an electronic version of Winter Cities magazine, in addition to the printed version?
 - Yes No

Thank you for assisting us.

visitors an effective overview of our region and the pride we have in it. A group of experienced snow sculptors from Alberta spent several days building snow sculptures in the Plaza. This was a first for Prince George and created widespread interest. A snow fireplace, complete with snow chimney, mantle and illuminated hearth that encased a real, pellet-burning stove was particularly popular.

Evaluation sheets were distributed at the workshops, and delegates responded warmly to the calibre of our speakers, rating most workshops either good or excellent. Topics on the economy included winter tourism and winter wilderness holidays, cultural events and winter festivals, lightscaping in winter and community economic development through communications technology and infrastructure.

Environmental topics included responsible management of natural resources, management of waste and local food production and distribution in the north. Quality of life topics included winter livability, planning of winter cities for children, snow management and a number of case studies of northern planning and architecture.

The final plenary session "Circumpolar Connections" provided an opportunity to introduce Mayor Jimmy Kilabuk of Iqaluit, the capital of Canada's newest territory: Nunavut. Information about future Forums sponsored by the International Association of Mayors of Northern Cities was presented by delegates from Lulea and Kiruna, Sweden (Forum 2000) and from Aomori City, Japan (Forum 2002). The Winter Cities Association also announced that Quebec City, Canada, will host the WCA Forum in 2001.

About 100 people were involved in planning, organizing and helping out during Winter Cities Forum '99, the Exhibition and the Health Conference. We received many comments about our friendly volunteers and courteous staff. We were privileged to host the Forum and proud to welcome our visitors. We saw people get involved and inspired, gain new perspectives on winter as a resource and discover ways of improving livability in winter communities, large and small.

Anne Martin is a Councillor, City of Prince George and second vice-President, Winter Cities Association. She was Chair of the Program Committee for Forum '99.

The Winter Tourism **CHALLENGE**



Photo courtesy ADVB

Anchorage in winter.

ADAPTED FROM A SPEECH PRESENTED BY RICK MYSTROM, MAYOR OF ANCHORAGE, ALASKA, AT THE WINTER CITIES FORUM, 1999.

The Potential

For cities of the North, there is wealth to be found in our winters. Winter tourism holds great promise for our future, promise that has been largely untapped. We live in lands of great beauty. We enjoy natural wonders experienced by only a small minority of the human race. Our wildlife is abundant.

Amortizing our Investments

Winter tourism is one of the more immediate ways winter cities can improve their economies. As we find ways to attract more wintertime visitors, our tourist businesses will become more profitable year-round, encouraging greater investment.

Anchorage has 6,800 hotel rooms and 900 bed & breakfast beds. Many of these rooms remain empty in winter. Our upscale hotels enjoy 94 percent occupancy in the summer, while averaging only 62 percent the rest of the year. In December and January, occupancy drops to 52 percent.

The potential lies in filling those rooms in the winter.

The Challenges: Competing with Giants

As we aim to attract winter visitors, we are competing with the giants in the tourist industry. In 1996, Hawaii spent \$245 million, mostly to attract the wintertime traveller. Alaska spent only \$7.8 million for its year-round tourist promotion, and only a small percentage was dedicated to the winter market. As a result, we in Anchorage have taken the initiative ourselves, spending \$4.2 million last year alone.

Strategies for Success:

1) QUALITY FACILITIES THAT APPEAL TO THE AFFLUENT ADVENTURER

Our survey data show that winter tourists in Anchorage are, on average 10 years younger than our summer tourists. They are better educated, more affluent and spend more money per trip than their summer counterparts. Obstacles in the minds of our winter travellers are the false perceptions that northern accommodations are primitive and uncomfortable. Our success depends on convincing potential winter visitors that they will be warm, safe and well-supported as they enjoy winter adventures.

2) UNIQUE ACTIVITIES AND EVENTS

Harbin, China

The "Ice Lantern Gala" is truly one of the wonders of the winter world. This 45-day ice and light spectacular, held in Zhaolin Park, has been China's first festival of the year for the past 23 years. By establishing

this remarkable tradition, Harbin has developed world-class artists and sculptors and has become a "must see" for all winter travellers.

Edmonton, Alberta, Canada

Edmonton's success comes from world-class sports and shopping. This dynamic city has gained a reputation for outstanding professional sports teams and events; hockey, football and rodeo. But perhaps most remarkable is the success of the West Edmonton Mall. This shopping centre, encompassing 24 city blocks, attracts millions of visiting shoppers each year. With 7.8 million visitors each year, tourism contributes more than \$1 billion annually to Edmonton's economy.

Tromso, Norway

Tromso is successfully marketing winter visits for Aurora viewing, mostly to Japanese visitors.

Aomori City, Japan

Here, a village of Snow Huts is available for both citizens and tourists. Each of these igloo-like dwellings offers dining delicacies - from Ghengis Khan



Native participation in "Cultural Tourism."

barbecues to local "Jappa" stew. Aomori has learned that visitors are drawn to their city by the "taste" of winter. Wintertime seafood, taken from colder seas, is richer in oils and tastier.

Anchorage, Alaska, USA

The Iditarod Trail Sled Dog Race is a unique winter event in Alaska. Beginning in Anchorage each March, the "Last Great Race" has contributed to the mystique and appeal of wintertime Alaska. It commemorates a heroic and life-saving episode in 1925 when courageous men and dogs, in the depth of winter, carried diphtheria serum 1,600 km from Anchorage to Nome. The modern race has captured the imagination of people all over the world and opened up remote Alaska villages to winter tourism.

3) PARTICIPATION BY ABORIGINAL PEOPLES.

Cultural and historical tourism is one of the fastest growing areas of tourism worldwide. Of special interest are indigenous people - their art, music, dance



The Iditarod Trail Sled Dog Race brings participants, spectators and media from around the world.

Photo courtesy ACVB

Photo courtesy ACVB

Living in harmony with winter

By Norman Pressman, MCIP, AICP

"Designing and building in both a sustainable and a climate-responsive way that provides thermal comfort (especially in the outdoor realm) can go a long way toward establishing livable, dynamic, and vital city form. The public realm must be treated with care while reflecting the local landscape and cultural heritage."

This 55 page booklet outlines "concepts, strategies, trends and principles that promote a fuller understanding of the critical variables impacting on sustainable development in the northern context".

Norman Pressman, Professor Emeritus in Urban Planning in Waterloo, Ontario provides an excellent synopsis of key elements and concepts involved in climate-responsive design.

Each booklet only \$7.50 CN, includes shipping and handling.

Make Check Payable to **Winter Cities Association** and mail with shipping information to:

Winter Cities Association, c/o The City of Prince George, 110 Patricia Blvd., Prince George, BC Canada V2L 3V9

and traditions. Cultural tourism requires sensitivity and tact. The key to success in Alaska is Native ownership.

Historically, Aboriginal people have been exploited by more dominant cultures. In the past decade in Alaska, however, we have seen a dramatic change, and this change is working to the betterment of all.

Seventeen new companies provide tours of Alaska Native villages, interpreting Native cultures. Fifteen of these are companies are owned by Natives. With Native ownership has come local participation, a welcoming spirit and a dedication to accurate representation of Native traditions and values.

4) STRONG MARKETING PROGRAMS

Marketing is vital to success. Using wildlife cartoon characters and the theme 'Wild about Winter', the Anchorage Convention and Visitors Bureau has marketed winter-time in Anchorage as a great place to have fun. The ACVB team of 37 employees is financed by half of the receipt of a hotel bed tax. This tax generated \$9.6 million in 1998. The majority of ACVB efforts focus on non-summer markets, and the results have been impressive. From 1993 through 1997, annual tourism sales in Anchorage, as reported by North American wholesalers and travel agents, have doubled from \$33 million to \$66 million. The economic

impact of conventions and meetings in Anchorage has also nearly doubled – from \$33 million to \$57.5 million. Eighty-two percent of the conventions and meetings took place outside of the summer season. Last year's total of \$128.6 million in tourist sales represented a return of \$32.61 for every dollar invested in promotion.

Conclusion

The most important aspect of successful tourism, regardless of the season, is the friendly attitude of people. That is the key, above all else, to help our guests enjoy themselves and make them want to return.

Planning and Designing for *Children* IN NORTHERN COMMUNITIES

BY MICHAEL BARTON

About 45 years ago, my own experience of moving around the city was a combination of walking bussing cycling and using trains. This provided me, along with my peers, an intimate knowledge of routes to and from bus stops and train stations. It also provided us with a junior expertise on types and models of buses and trains. We had many favourite "nodes" although this word was unknown to us. Our geography was very experiential!

Recently, Professor Greg Halseth of UNBC has revisited "kids mapping" studies in Prince George. From the studies, it is apparent that children's experiences of these routes are more likely to be from the back seats of automobiles. Changes in city planning in North America have not been sympathetic to the needs of children, (or indeed the old, the poor and the disabled). As Colin Ward said nearly 20 years ago: "Our problem is not to design shops, streets, housing...that can lend itself to play, but to educate society to accept children on a participating basis."

It is much the same problem in northern towns. We are

becoming used to designing for snow drifting, prevailing winter winds, orientation and using heliomorphic form generation etc. For children, however, it is the links and pathways which connect house and school; school and park, which are so important. Often, the experience of getting to places is more important than arriving.

Many northern towns are scattered into specific zones which are spread out over a landscape. Typically, there will be an original core; an industrial zone; then, a school here, a recreation centre there, a park over here, a college campus way out over there, and so on. In between these zones there will be amorphous spaces of uncertain designation. Quite often, the distances between the zones, (and user-unfriendly transit systems) deter walkers and cyclists. The result is the endless ferrying of children from place to place in cars, which so many of us are familiar with.

Because of the mania for the efficient movement of vehicles through urban centres, together with the upsurge in "sub-urban" residential zones, the integral networks which existed in the urban villages of the

'30s and '40s, between home, school, neighbourhood, friends, street, park and workplace, have changed dramatically.

Looking for Solutions

Having briefly looked at "how we arrived here," we should ask ourselves "what is it that now needs to be done in order to achieve a measure of user-friendliness in this (or any other) northern town?"

To begin with, things should be more compact. Places should be accessible by a variety of means, and by the young and the old. The links between the zones that were previously mentioned should be person-related, not vehicle-related. Some of what is happening in downtown Vancouver, for example, is good. The old industrial area, on Granville Island, is now an integral mix of housing, retail space, market place, recreation areas, footpaths and cycle paths. All of this is within easy reach of the core (using public transit).

Another example is Nuuk, Greenland, where the schools are accessible by pathways and bridges, so there are no main roads to cross. It is a curious paradox that in the land of

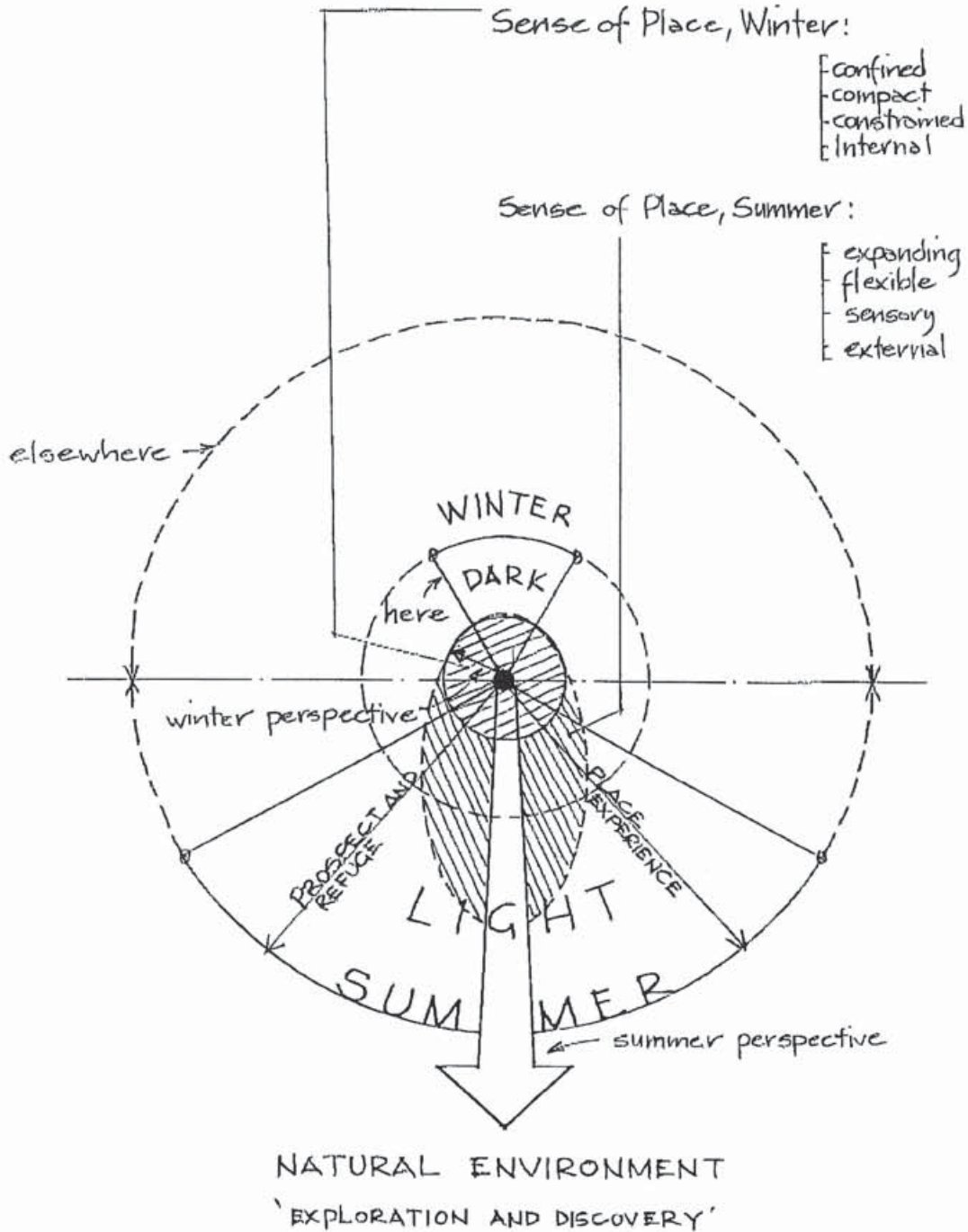


FIG. 1 ECOLOGICAL MODEL; PLACE-EXPERIENCE
FOR CHILD-SENSITIVE NORTHERN HABITATS.

C.R.P.A. '75.

Disney, where there is such a current proliferation of thematic enclaves, there is very little design and planning with children in mind.

Micro-level

As it will be some time yet before planning and urban design enables children to participate in their environments, we might have to make a start at the micro-level of neighbourhoods. People who have taken the time to study children in the urban environment come from a very broad range of disciplines, for example architecture, planning, environmental psychology, recreation, medicine and so on. However, some of the things that they have collectively noticed include:

- Differing sightlines (fig 2)
- Scale, proportion and distance

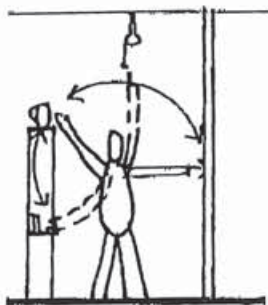


Fig. 3

- Anthropometrics
- Ergonomics (fig 3)
- Colonization of small spaces (fig 4)
- Prospect and refuge

Some of my own research, which has taken place in various settings (classrooms, clinics, hospitals, playgrounds, housing estates, airports and the street)

has produced a myriad of behavioural and environmental information.

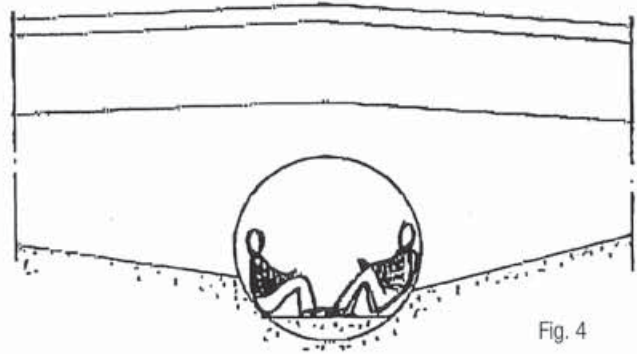


Fig. 4

The Northern Ecological Model (fig. 1)

This model is a result of combining the kind of design-relevant information which has already been alluded to with northern appropriate design and planning information. The latter component is also a blending of climate-related criteria and socio-cultural information, which comes from observing people and movement patterns in small northern communities.

This model demonstrates the way a community is able to expand and contract; not in a physical sense, but in the way people are able to accomplish things and move around. In design principle terms, winter is concerned with 'refuge' in varying degrees. Of course, 'prospect' may also be afforded when viewing the low winter sun from a wind-sheltered spot. The summer season however, promotes expansion through the use of the sensory environment and the external range.

The qualities listed below would be part of a community model of this type:

- Climate-appropriate orientation
- High-density and compactness
- Clustering of units and structures
- Using natural topographic forms for buffering and protection
- Having a central meeting/gathering place

This model could lend itself to a small community by itself; or be part of a town or neighbourhood. A sense of place would allow for child-participation in a natural, risk-free but challenging setting.

Michael Barton, Dipl. Arch, MA, Yukon Architect and Principal of Circumpolar Research and Design for Architecture

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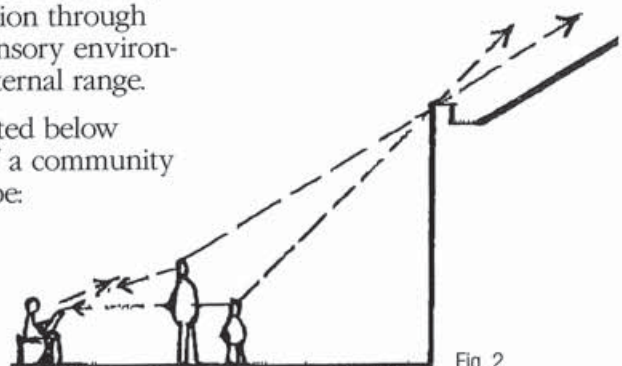


Fig. 2

Snowplow Know-How

Heavy snowfall no match for Prince George's Snow Task Group

BY FRANK BLUES, PUBLIC WORKS OPERATIONS MANAGER, CITY OF PRINCE GEORGE

Prince George is a thriving community of approximately 80,000, located at the junction of the Fraser and Nechako rivers in the geographic centre of British Columbia. Winter lasts about five months, bringing an average 225 cm of snow and average January temperatures of -10 degrees Celsius.

The winter of 1990/91 was instrumental in changing the way the city managed its snow and ice control operations. Heavy continuous snowfall and an operation that was driven by efficiency and cost led to a significant number of complaints and demand for change. In the late 1980s, City Council had also completed the development of a mission statement that focused on the delivery of service and the provision of an excellent quality of life. The challenge was to take snow and ice control operations through the change process and deliver excellent service.

A Mayor's Snow Task Group was struck to review winter operations and the city's Snow Policy. The policy stated that snow would be plowed from downtown and arterial roads when the depth exceeded 7.5 cm and in residential areas when the depth exceeded 10



A snow shovel illustrates a typical windrow of snow in a residential driveway after a grader has passed following a light snowfall.

Photo courtesy of the City of Prince George

cm. The Mayor's task force included representatives from council, senior management, and members from the various levels of public works and support departments including Bylaw. Resource people including contractors within the community were also invited to participate and provide input. The objectives of the Task Group were clear:

- Allow reasonable accessibility for pedestrians and vehicles throughout the city.
- Meet public expectations in managing snow and ice.

The Task Group identified a number of areas for improvements and operations staff were invited to identify barriers that were viewed as "red tape" and if eliminated would improve operations.

One area of considerable public frustration was the blocking of residential driveways with a windrow of snow and ice during residential plowing. This item was targeted for immediate improvement and resulted in a pilot project to begin the following winter. Snow and ice windrows were to be significantly reduced during plowing operations to permit reasonable access to and from residential driveways.

To solve this problem, a grader equipped with a snow-gate was used. A gate is dropped to carry snow through the driveway opening, and then opened so the snow and ice can be deposited on the far side of the driveway. In heavier snowfall (greater than 150 mm) the snow typically spills over the gate and leaves a small

windrow. Driveways are opened for the approximately 18,000 properties located on curbed streets.

The pilot project proved that opening driveways was indeed practical and possible. The service was implemented city-wide in the winter of 1992/93. While the gate does not do a perfect job of clearing snow from driveways, the public response was overwhelming with many letters of appreciation submitted to the City and the local newspaper's editorial page. The public acceptance of this service along with a commitment from management to eliminate "red tape" was well received by snow crews who began to take a renewed pride in delivering the best possible service to the community. The stage was set to continue the process of change, which over the next six years evolved from a budget-driven to a service-driven operation. The

most notable changes include:

- Reduced time to clear snow off 540 km of city streets from 55 days to 35 days.
- Strict enforcement of winter parking restrictions since parked vehicles slowed down operations and left snow on cleared streets after vehicles leave their parking spots.
- A new policy on hiring effective equipment and operators.
- Emphasis on improved training for city winter operators.
- Establishment of a 24-hour, "snow line" to receive questions or concerns from the public.

Costs of managing snow and ice can vary between \$3 million and \$6 million depending upon the actual winter conditions. The budget in the early 90s was approximately \$25 million and today the budget is \$3.8 million. High expenditures

are covered using a snow reserve account built up from surplus money in low expenditure years. Part of this increase in cost is due to the increase in the City's population during the 90s from 75,000 to 80,000 and the associated increase in road networks.

The public response to the changes implemented has been support of and a willingness to pay for the increased service to sustain the quality of life in the north. City crews continue to innovate and experiment with new methods and equipment to meet the ever-changing demands for improved services. Operations emphasize our internal and external communications processes and the use of the media to keep the public informed. City Council's mission to "Provide an excellent quality of life" is being supported by our winter operations.



Photo courtesy of the City of Prince George

A grader equipped with a snow-gate is shown here with the gate in the "down" position. The gate is dropped to carry snow through the driveway opening. Snow is deposited on the far side of the driveway. Photo courtesy of the City of Prince George

Sustainable Urban Settlement Patterns

BY PROFESSOR NORMAN PRESSMAN ©



A serious crisis confronts us both as citizens of our own countries and as global citizens. This was re-emphasized at the Kyoto confer-

ence, held just over one year ago, dealing with pollution, global warming and ecological balance. We must - at any cost - reduce the harm caused by inefficient use of energy, land, and resources; by an insatiable use of the private car which continues to fuel pollution and urban sprawl; and by an urban form that is neither terribly rational in its spatial configuration nor one which stirs the soul.

Some of the factors which will assist in creating a higher quality of urban life are clean air, safe streets, good public transport, and well designed public spaces, cycle paths and pedestrian movement systems - which are at least partially climate-protected, close to transit stops. These will have to be integrated in town planning and urban design.

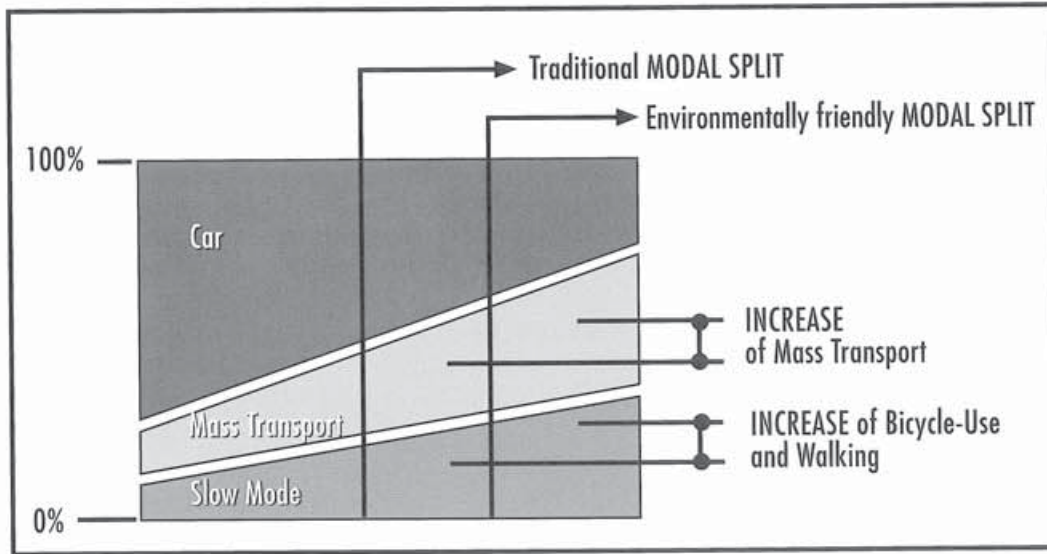
The North American city has experienced successive phases of urban development - industrial growth, automobile dominance and suburban sprawl of the post-war era. These events have left an indelible mark on the structure of cities. From its inception, the car has been responsible for shaping the

urban form and the landscape of the modern city (since the 1930s) especially in North America. As pollution and congestion worsen and the appetite for private space increases, the inhabitants of cities move to the suburbs in order to live in what is perceived as a more desirable environment - less crowded, safer, less polluted, less congested and less dangerous. However, this phenomenon of movement and relocation fuels the need for greater car ownership, car dependence, and private commuting to city centres and, in North America, "suburban centres" also known as "edge cities" which are often major sources of employment. Consequently, suburban living becomes automobile dependent. Shopping and work in North America typically rely heavily on individual private mobility.

The development of cities has gradually generated a transportation infrastructure that decentralized and dispersed urban form. Planning exclusively based on the car is dangerous, costly, wasteful and economically inefficient. It fails to recognize underutilised and underdeveloped sites suited for development in the inner cities; fails to take advantage of existing and underused infrastructure; fails to reduce automobile reliance. New roads, new infrastructure and new suburban communities continue to underuse the existing resources of cities. Moreover, they continue to devastate and exploit the natural environment.

Quite simply, the automobile as a constant variable factored into transport planning policies combined with traditional patterns of low-density development consume staggering amounts of land and energy. Nearly one-third of land in cities worldwide is devoted to cars. In the US and Canada, every kilometre of freeway occupies a total of six hectares of land. The growth and development of urban areas have resulted in a significant conversion of land from rural and natural uses to urban uses over recent decades.

The transportation and environmental problems confronting our cities and regions suggest that automobile dependency needs to be reduced. There exists strong evidence to assume that the scope of these problems will worsen, perhaps to a state of irreversibility if not addressed immediately. If greater sustainability is to be part of urban development, alternatives to the car - public transport, cycling, walking - and a corresponding urban form conducive to their use will have to emerge. In essence, a healthier modal split must occur. The transport problems of the modern city necessitate land use and innovative long-range concepts which promote sustainable urban form. There are two basic types of development: centrifugal and centripetal. The former stresses peripheral extensions while the latter emphasizes central area infill. It is essential, if car-dependency is to be reduced or stabi-



lized - to make investment decisions that promote development in central city districts and curtail sprawl. If policy does not stimulate such development, then peripheral growth will attract further use of cars, generating demand for more roads, parking, and transport-related infrastructure. This is a vicious cycle that is difficult to break, once it has gathered substantial momentum.

A decentralized, sprawled urban form also results in the loss of a city's public realm that is essential to human interaction and health. Suburban development, away from the city's centre, is based primarily on a desire to distance oneself from the 'ills' of the city (especially in North America). The effect of this type of development is often the displacement of functions and activities to outward, suburban locations which adversely affects the role of the city centre - making it unsafe and underused.

Many medium-size European cities have introduced measures to discourage private car dependency and use. Strasbourg, France was awarded the 1996

European prize for excellence in public transport by re-introducing tramways, improving bus services and integrating park and ride prices that included a free tram ticket or bus ticket. Together, its policies resulted in reducing car traffic in the city centre by 17%. Second place went to Lindau, Germany, and third place to Innsbruck, Austria. In Austria, Salzburg has managed to achieve a staggering modal split whereby 63% of all trips are now made by public transit, walking and cycling. Additionally, a private radio-taxi company picks up close to 50,000 evening passengers - a system similar to that of "Treintaxi" which is popular in the Netherlands. This innovative Dutch system, only partly subsidized by the Dutch Railway, the local municipalities who are partners in the project, and the Ministry of Transport and Waterways, provides a normal taxi service within a radius of approximately six kilometres from the train station for rail passengers holding a train ticket. The price of the treintaxi is a mere six guilders (\$4.00) and must be obtained when the

train ticket is purchased. This reduces the number of cars circulating within the city and improves air quality.

Most small Swiss cities have completely pedestrianized their town centres and have strongly promoted public transit over car travel largely for social and environmental reasons (to reduce pollution levels, save the forests, protect scenic built and natural landscapes, and save scarce and highly valuable land). The Swiss have also achieved intermodal integration by linking commuter and light rail, trolleybus, bus, tram, park and ride facilities, lake-steamers, mountain railway, and cable car services. Railways and airlines are integrated so that train stations serving international destinations can be found below the major airports of Zurich and Geneva and baggage can be checked from any rail station in Switzerland to destinations anywhere Swissair flies via the "Fly-Rail" concept, pioneered by Swissair and the Swiss Federal Railway. This is exemplary from a sustainable perspective.

Recent North American innovations include, for example:

- A "free-bus", within the central business district in Denver, Colorado, for passengers who have used the light-rail commuter system.
- A "no-fare" ride zone on the light-rail line sector which falls within the central downtown area of Calgary, Alberta.

Western Europe has adopted policies that clearly promote public transit linking ex-urban districts to the central cities; stimulate high-quality public spaces for human encounter; and discourage endless low-density suburbia based on strip or ribbon development and regional, car-oriented shopping malls. Acting together, these policies based on stabilization or reduction of cars have the potential of reducing future car use over the next 15-20 years by up to 20% of what could be expected if no action at all were taken.

Strategies to Encourage Walking, Cycling and Transit

Numerous strategies, operating on different levels, can assist in diminishing car dependency particularly in places where land is scarce, or extremely expensive, or where roads and parking lots destroy the basic fabric that contributes to livable, healthy environments. Simultaneously, they promote cleaner, greener modes of movement. The most effective planning principles required to achieve a better balance between cars and public transit (including walking and cycling) are those that attempt to deal with:

- land use.
- parking policy.

- road pricing.
- traffic calming.
- routing design to stimulate bicycle commuting and transit.
- climatic protection to encourage walking and cycling.

The environments that can benefit from climate-protection strategies and improved micro-climatic conditions are those which connect important nodes of activity such as shops and public transport stops, public spaces and cycle-parking zones, major institutional buildings and high-use functions (eg. railway or bus stations). If these strategies also contribute toward energy conservation and environmental protection, they will have made a powerful impact in improving urban quality. Both physical design and social organization have to work together to support everyday life, and urban architecture has an important role to play. Urban design concept plans should indicate major pedestrian links between origins and destinations suggesting where climatically sheltered zones might be realized. In areas of significant pedestrian and cycle activity, consideration should be given to the requirement for weather protection devices such as canopies, awnings, arcades and colonnades.

Climatic protection also increases the power of economic attraction when a regional centre competes with other centres for business and shoppers. A project for total climate protection (by glazing-over the entire major pedestrian shopping street and adjacent car-free zone) in the small town of Vlissingen, The Netherlands, (which experiences abundant wind and rain), completed in 1992, has met with immense success by increasing the regional shopping radius by

an additional 10 kilometres.

If walking and cycling (the soft/slow modes) could be encouraged (through improvement of collective transport modes) and continuous paths and networks for pedestrians implemented where people live, work and play, then the public and semi-public spaces of the city's fabric which are woven into these paths could be appropriated for a wider range of uses.

New attitudes (especially in North America) will be required if funding, participatory measures, legislative means and marketing are to evolve with the intent of making serious changes to our behaviour and with respect to how we move around. All scales of development will have to be tackled simultaneously. Solutions developed for an urban region will significantly affect strategies targeted at specific, localized parts of the city. If quality in urban life is demanded, then walking must ultimately be viewed as part of the overall plan, and as a constituent element of the broader civic space.

Attractive and well-managed streets and open spaces form the essence of urban life. They should be genuinely public in nature as a counterthrust to the gradual disappearance of public life resulting from large "atrium-style" shopping malls downtown and in the suburbs. Social enjoyment, visual pleasure, climatic comfort, efficient mobility, strong identity and sensory stimulation must be viewed as goals to which the spatial organization of the city should aspire. All cities must evoke a sense of place with unique attributes universally recognized and appreciated, in every season.

City of Lights

BY STEVE SCHROPSHIRE

Anchorage is fortunate to have a Mayor in office who is very connected to his physical surroundings. A main focus of his administration has been encouraging residents and businesses to "Take Pride and Take Part!" by participating in a variety of city-wide beautification programs, such as the "City of Lights" program.

The program was started by the Anchorage Chamber of Commerce in 1983. However, it was not until our current Mayor, Rick Mystrom, made beautification a priority, lending multiple municipal resources to the program, that it gained in popularity.

The program is a public/private partnership between the Anchorage Chamber of Commerce, the Municipality of Anchorage, the Mayor's Beautification Task Force, the Anchorage Convention & Visitor's Bureau and many companies and individuals.

When days begin to shorten to a minimum of five hours of daylight, miles of strands of tiny white lights are placed on trees, shrubs and buildings, transforming Anchorage into a winter wonderland of sparkling beauty.



Photo courtesy ACVB

ABOVE: Businesses and homes with the best lights display can win prizes!

RIGHT: Lightscaping is big business in Anchorage, with approximately 60 percent of homes and businesses participating

Today, you would be hard pressed to drive down any street and not see at least one home or business illuminated. People are more creative each year in the way they use the millions of miniature white lights that are sold. We used to just hang them up — now we wrap them around each tree limb, swirl them through tree branches, create waterfall affects on the sides of buildings, etc.



Photo courtesy ACVB

This program has spurred on a new business classification, i.e. "Lightscapers." Landscaping businesses have been very successful at using their design talents in the winter months by charging for their services to illuminate homes and business-

es. Lightscapers were busy all winter long with customers on waiting lists.

Everyone can participate in the City of Lights program. We simply ask residents and businesses to put their lights up in October and keep them on through the dark winter months. When the last musher crosses the finish line in Nome (usually the second week in March) it's time to turn them off.

Retail stores love the program. The fact that the City of Lights Committee works with local media partners to promote the

program gets people out in the stores purchasing the latest "thing" in miniature white lighting. For the past two years, most stores have sold out, at least once, on various styles of miniature white lights. Approximately 60 percent of businesses and 60 percent of residential homes participate in the program by lightscaping.

The committee also conducts a contest each season, seeking the best miniature white light displays. The Grand Prize Winner is rewarded with a round-trip for two to Hawaii, including accommodations.

With the City of Lights program, everyone wins. Crime has decreased; the streets and neighbourhoods are well illuminated and safe for drivers and pedestrians; retailers and lightscapers are able to turn a profit; and for those who suffer from light deprivation it makes getting through our cold, dark winter a lot more enjoyable. And if those things are not enough, it simply just makes Anchorage a more beautiful place to live, work and play.



Tiny white lights on trees, houses and businesses around Anchorage brightens the city through the dark winter months.

Photo courtesy ACVB

*Winter Cities 1999:**A Personal View*

BY MICHAEL L. BARTON
FIRST VICE-PRESIDENT, WCA, NORTH AMERICA



When the plane touched down at the airport, it seemed remarkably bright and sunny. It was in fact plus 3 degrees. The night before in Vancouver, it was raining and blowing a gale. It felt colder! My spouse Donna and I were

picked up by the shuttle service which had been alerted to our arrival. On the way into town, the friendly driver chatted to the Mongolian delegates who had been similarly picked up. It was a one-way conversation, but I'm sure they enjoyed it.

Regulars at Winter Cities events enjoy meeting old friends and colleagues, whilst also meeting new ones. The new delegates enjoy meeting each other. Typically, there is so much activity that is crammed into four or five days, it would be almost impossible to be bored. This activity is a stimulating mix of learning and socializing. The host city people become too involved to actually enjoy much of the action themselves. Some of the younger ones do manage somehow, although this means getting by on about three or four of hours sleep a night. The mayor and council play a significant role at these events. It affords them a good opportunity to look good and to be human and normal like the rest of us. Mayors and councilors, who are worth their salt, can gain a considerable amount of credibility during a Forum. Certainly, host city mayor Colin Kinsley (as well as councilor and committee chairperson Anne Martin) must have won a good deal of support for their efforts and charming interpersonal manners.

The successful organization of a WCA Forum is, in itself, a hard act. It requires the right amount of blending of serious and not-so-seri-

ous deliveries. As a presenter myself, I am aware that presenters tend to be more critical than most. Hence, when one receives good and positive responses from other presenters, this is a real boost!

The keynote speaker at Forum '99, Dr. David Foot, delivered an opening address entitled "Boom, Bust and Echo: Opportunities and Challenges for Winter Cities." Dr. Foot has gained quite a reputation for identifying economic opportunities from demographic studies, especially in respect to the "baby boomer" phenomenon. I think the "for winter cities" part might have been tacked on for our benefit.

Dr. Foot was quite unlike any other economist I have met or seen. He "boomed, busted and echoed" his way through the presentation. Although this was not my cup of tea, Dr. Foot seemed to be able to carry along a lot of the audience with his performance. Most of the presentations that I was able to attend were very good and well-received. I also heard excellent reports about some of the others that I missed. All in all, the workshops appeared to elicit a very favourable response. I particularly enjoyed meeting other presenters and exchanging ideas and perspectives. In fact, exchanging ideas and perspectives is one of the key reasons for anyone to attend a WCA Forum.

Meeting again with Peter Barfoed, from Nuuk, Greenland, was a very pleasant experience. Although we have corresponded on a variety of issues and themes, I hadn't seen Peter himself for about five years. From what I saw and heard at the Forum, Peter was a big hit. His soft-spoken and humble manner appeared to elicit a warm response from the people who attended his presentations. He has managed to blend his

serious side (architectural design and planning) with his "fun" side, (snow sculpture expert), to great effect. His workplace in Nuuk has been transformed into a snow castle, complete with tower and crenellations. Apparently, Peter's workplace is now a community centre and drop-in cyber café, as well as being a professional office where award-winning designs are produced.

It is probably fair to say that interest in snow-sculpting was fired up somewhat by the examples outside the Civic Centre at the Forum. The 'zero-clearance' fire unit, which was built into a cosy fireplace and flue next to a sofa with reclining bear, all made from snow, was a natural setting for the 'bundle-up' barbeque. I think I heard that Prince George is planning to have their own snow sculpture festival. This is a great idea, and one which is sure to have many spin-offs, as both Sapporo, Japan and Nuuk, Greenland have discovered.

It was exciting to hear Patrick Coleman announce that Quebec City will host Forum 2001. This has to be one of the most interesting of all the winter cities, and has a lot to offer the winter visitor, including the famous carnival, its unique location, great culture, nearly 400 years of history, and superb restaurants. Perhaps Celine Dion will come and sing for us. The Mayors Conference and Forum 2000, which will be in Lulea and Kiruna, Sweden, is also shaping up nicely for next year. It may be the only chance we'll ever get to go ski-joring behind a reindeer! Also, I expect mayor Colin Kinsley will be practising his form for the local kick-sled races.

On the return flight I spoke to a man from Dawson City, Yukon. He had not heard of the Winter Cities Association until this year. He also told me that the idea of celebrating winter had not occurred to him before. He said that the presentations (including mine, he was kind enough to say) had changed his perspective quite markedly. He would be spreading the word now, he said, and would be getting the people of his community more involved in the cooler six months of the year. And really, this is the main point of it all. Two weeks in Florida is very nice, but that still leaves five and a half months of the northern winter season. If we all recognise this, we can help to make our communities more livable.

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