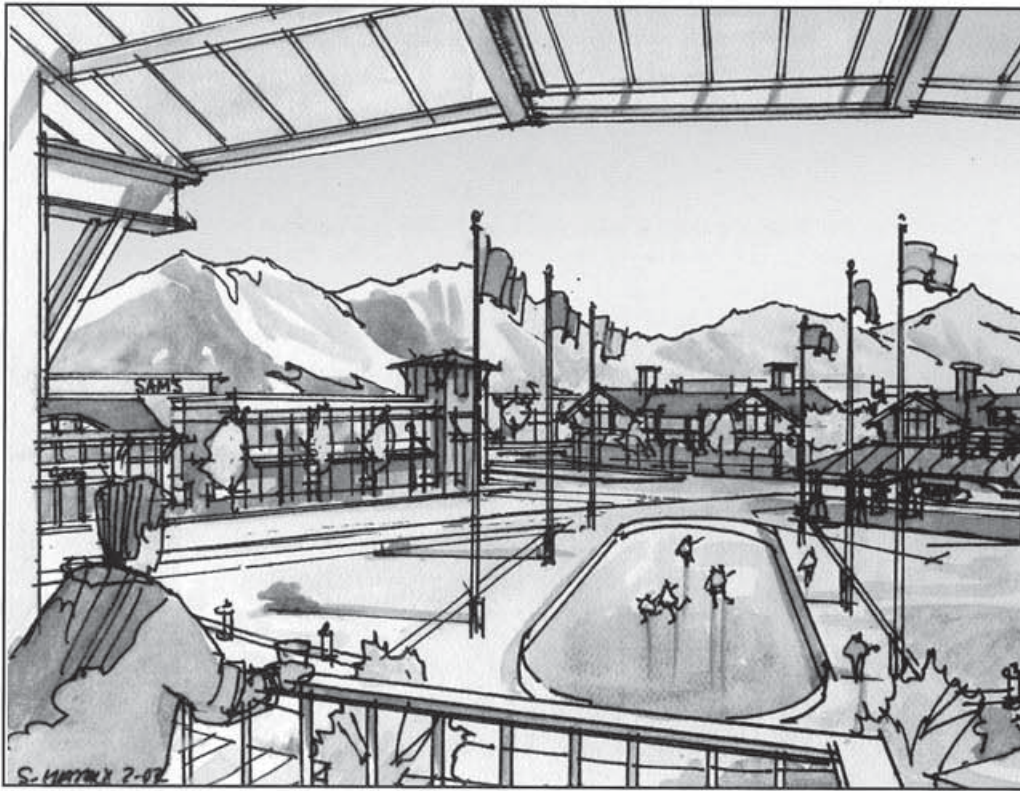




# Winter Cities

VOLUME 22 • NUMBER 2 • MAY 2003



*Planning In  
Cold Climates*



# Winter Cities

## ASSOCIATION

c/o CITY OF PRINCE GEORGE, 1100 PATRICIA BOULEVARD,  
PRINCE GEORGE, BC CANADA V2L 3V9

### MISSION

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

### HISTORY

The Winter Cities Association was founded in 1983 by the late Jack Royle, a retired journalist and pioneer in the winter cities movement. The Association was incorporated in 1984. Professor Norman Pressman served as its first President.

The purpose of the Association is to bring together professional, private, commercial and municipal interests and researchers who are committed to enhancing the liveability and quality of life in communities where winter conditions present unique challenges and opportunities. The Association seeks to support, and may enter into affiliations with, other associations that support its goal.

The Association publishes a quarterly magazine, periodically sponsors other publications dealing with winter issues, and promotes a biennial "Winter Cities Forum and Trade Show" in partnership with a host city/corporation.

The head office of the Association is currently located in Prince George, British Columbia.

### MEMBERSHIPS & SUBSCRIPTIONS

Annual membership fees in the Association are by category:

INDIVIDUAL - \$60.00 Cdn.      STUDENT/SENIOR (OVER 65) - \$30.00 Cdn.  
CORPORATE/INSTITUTION - \$125.00 Cdn.      CITIES AND MUNICIPALITIES - based on population

All members receive the *Winter Cities Magazine* and municipalities receive 10 copies of each issue. Members are eligible for discounted registration fees at Winter City Forums, and may purchase books and other materials published or distributed by the Association.

Subscriptions for the magazine only are \$40.00 Cdn. for one year, \$75.00 Cdn. for two years and \$100.00 Cdn. for three years.

Visa and MasterCard are accepted. Cheques are payable to the Winter Cities Association,  
c/o City of Prince George, 1100 Patricia Blvd., Prince George, BC, Canada V2L 3V9

*"A winter city is one in which the average maximum daytime temperature is equal to or less than 0 degrees Celsius for a period of at least two months or longer".*

Pressman, Norman, 1988. "Images of the North: Cultural Interpretations of Winter", in *Winter Communities Series*, No. 5, Institute of Urban Studies, University of Winnipeg.





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*Ono Fleischer has spent much of his life sharing his rich cultural heritage with youth of the Circumpolar region from Alaska to Greenland - traveling this vast area by dog sled.*

### **MIKE DILLEY**

Mike Dilley is a well-traveled film and television producer living in Eugene, OR. His career has included commercial wine-making, music and spoken word audio production and writing freelance articles for a variety of publications. Professional association activities span two terms as President of the Mid-Oregon Production Arts Network, recognition as an Honorary Governor of the San Francisco Chapter of the National Academy of Recording Arts and Sciences, and six terms as a board member of the Oregon Winegrowers Association. He is currently producing a documentary on northern sports and culture titled "So Cool." A featured segment of the documentary will be the introduction of northern sports and culture by northern youth coaches to lower 48 youth at an event in Oregon. Support for the documentary has been received from the Government of the Northwest Territories with the assistance of Dr. Larry Neal (University of Oregon) and Dr. Samuel Lankford (University of Northern Iowa). Email: [producer@cyberis.net](mailto:producer@cyberis.net).



## *President's Message*

*I*t was a great pleasure to return to Sault Ste. Marie for Forum 2003. That City hosted the very successful Forum in 1991 and it was good to be back. We all enjoyed the kind hospitality and warm welcome of Mayor John Rowswell, his Council and the many staff and volunteers who were involved in planning and organizing this year's Forum.



Our Association was founded by the late Jack Royle to educate the public about ways of improving the liveability of winter cities and to bring together professionals, academics, elected and appointed municipal officials and others who are committed to enhancing the quality of life in the north.

In 1983, when the Association was founded, our members were primarily concerned with design and planning issues in the fields of architecture, engineering, planning, transportation and municipal infrastructure. In the last ten years, attention has been increasingly directed to climate change and issues of socio-economic and environmental sustainability in northern communities, where winter conditions present special opportunities and challenges.

In spite of raising people's awareness about these issues over twenty years, our original purposes remain valid. We still need to make our cities and communities more comfortable, convenient and aesthetically appealing. We must stop wasting planning and construction dollars by ignoring local climatic conditions. We still tend to ignore the pedestrian, particularly the elderly, the very young and the handicapped who must get out and around in winter but cannot because sidewalks are heaped with snow, are impossibly icy or are inundated with slush and muck. We have failed to give enough attention to developing northern oriented industrial and economic strategies, although this is changing as we all strive to compete in a global economy.

Winter Cities Forums give us an opportunity to share ideas and success stories and to celebrate winter together. We have some unique opportunities not enjoyed by people in the south, with ready-made tourist attractions like Sault Ste. Marie's Bon Soo winter carnival that are potential bases for all kinds of businesses. Between our biennial Forums, we keep in touch with each other through this quarterly magazine and we will soon be adding the website as another networking vehicle.

If you are not already a member, we invite you to join and help us continue in our search for the best northern solutions to northern problems.

Anne Martin  
President, Winter Cities Association

# ICICLES

*What's Up in the Winter Cities*

## *From the Editor*

The first time I became aware that the field of urban planning existed, and that I had a right to expect that my community should be designed with greater care, was after the 1994 Winter Cities conference in Anchorage, Alaska. A newspaper reporter followed conference participants around as they toured Anchorage. Several criticisms were leveled and useful advice was offered. It was the wake-up call that made me realize that Anchorage didn't need to settle for what developers were providing and that my frustrations with the aesthetics and functionality of my hometown were legitimate. I was involved in another career at the time and was simply satisfied to know that there were people who were educated in such matters, who cared, and who could fix it. Several years later I found myself at the University of Michigan in its urban planning master's program, where I was able to define my own area of specialty in northern design. This was possible because the Winter City Association exists. I was able to draw on the Association's resources and I benefited greatly from the help of generous members, who supplied me with additional resources, advice and support.

As a relative newcomer, I have had a great experience in the

Association and have a sincere appreciation for what members and the Board of Directors have contributed in the 20-year history of the organization. As the newly elected chairwoman of the Marketing and Communications committee, I am committed to working with you to make sure your membership in the Association is a great experience. I look forward to learning more about the needs of members from all perspectives – individual, corporate and city – and how the Association can fulfill those needs.

What I have received personally and professionally from the Association has been enhanced by attending the conferences in Aomori, Japan, and Sault Ste. Marie, Ontario, Canada. I encourage all members to consider attending the 2004 conference in Anchorage, especially if you have never attended a Winter Cities Forum or International Association of Mayors of Northern Communities conference. I believe it will strengthen your connection to the Association and fellow members; provide great information and give you the chance to experience another northern community in a way that will offer new insights back in your own hometown.

I encourage you to communicate with the Marketing and Communications Committee at [wintercities@aol.com](mailto:wintercities@aol.com).

René C. Akre  
Editor, Winter Cities Magazine

## Magazine Submissions

Members are encouraged to submit articles, book reviews, events and other news to the Winter Cities Magazine. We also welcome your suggestions for possible topics and authors you would like to see in future issues. The editorial staff may be contacted at [wintercities@aol.com](mailto:wintercities@aol.com) or c/o René Akre, 305 Virginia Avenue, Ann Arbor, MI 48103, 734.645.7874.

Refer to the inside back cover for more information about publishing an article in the Winter Cities Magazine.

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## Call for Papers Deadline

The Municipality of Anchorage is hosting the 11th Winter Cities Conference in February 2004. The conference theme is "Challenging Winter Frontiers: Health, Cultural Heritage, Rural Outreach & Technology." Winter Cities Association members are encouraged to submit papers to the host committee by email at: [callforpapers@wintercities2004.org](mailto:callforpapers@wintercities2004.org). Additional information can be found at the conference website: [www.wintercities2004.org](http://www.wintercities2004.org)

## Submission Deadline

Submission Deadline: May 31, 2003  
Selection of Abstracts/Papers:  
July 15, 2003  
Notification of Acceptance:  
August 1, 2003  
Final Submittals Due:  
December 31, 2003



# How do city residents feel about winter?

## A community survey questions winter attitudes

by PATRICK J. COLEMAN, AICP

It often seems that one of the favorite pastimes of winter city inhabitants is to complain about the weather, but how do people really feel about their climate? A community survey in Marquette, Michigan may be the first-ever attempt by a city government to measure residents' attitudes about winter. Now, city officials intend to use this information in a new Master Plan.

Located on the south shore of Lake Superior in Michigan's isolated and snowy Upper Peninsula (U.P.), Marquette is a winter city of 20,000 plus residents who are looking to achieve a sustainable future. City residents feel strongly about the city's natural setting and environment and are concerned about change in their community.

Like many northern communities that have developed in response to natural resource extraction (iron), Marquette's economy has struggled. A national economic development expert (from the south) who studied Marquette's economic development prospects several years ago said "It's a matter of snow, cold and isolation that is against you from the get go". Fortunately, Marquette is rejecting this kind of thinking.

City officials and the community share the vision that Marquette's ability to sustain itself comes from its dramatic setting on Lake Superior

and city livability. There is recognition that as a winter city, Marquette has special challenges and opportunities it must respond to in order to maintain and improve upon the community. Therefore, when the City of Marquette began the preparation of a new Master Plan last year, it wanted winter livability addressed in the planning process.

As part of an extensive community participation program, a survey was conducted to assess residents' attitudes about a number of important issues facing the community. Two surveys were actually made, a scientific or random survey, and a survey available on the city web page, at City Hall or at the public library.

The random sample was a telephone survey of 380 households in the City of Marquette. The survey asked 36 questions and was conducted in December 2002. Three questions relating to the winter season were asked.

- What types of indoor or outdoor recreation activities do you participate in the winter season? (specifics)
- Is winter a positive or negative attribute to living in the community? (positive or negative)
- Why? (specifics)

The responses to these three survey questions were a pleasant surprise to the city planners.

Overwhelmingly, most respondents (306 or 81%) viewed winter as a positive attribute to living in the community. 82% of males compared to 78% of females were positive about winter. Persons in the 65-74 age group were less likely to see winter as positive (33%), while of the eight respondents over the age of 75, 87% saw winter as a positive attribute.

To the question "why", respondents expressed a number of common likes and dislikes. Of those who responded that winter is positive (81%), the following reasons were given.

### POSITIVE

- Winter activities (47%)
- Like snow (18%)
- Change of seasons (12.5%)
- Tourism (12%)
- Like winter (12%)

Of the persons who view winter as negative, the following are the most common reasons:

### NEGATIVE

- Dislike cold (36%)
- Difficult to get around (15%)
- Dislike snow (15%)
- Shoveling snow (10%)
- Dislike winter activities (10%)
- Winter is too long (10%)
- Too much snow (10%)

The survey also questioned residents about the types of outdoor and

*continued on page 8*

# *Sault Ste. Marie*

## *Highlights from the Annual General Meeting*

by ANNE MARTIN



*Board Members attend a Winter Cities Association work session at the Sault Ste. Marie conference.  
Pictured (sitting): past-president, Norman Pressman, current president, Anne Martin, and past-president, Patrick Coleman.  
Standing (left to right): Larry Neal, René Akre, Michael Barton and George Paul.*

**T**he Annual General Meeting of the Winter Cities Association was held on Friday, January 31, 2003 at the Holiday Inn in Sault Ste. Marie, Ontario. Eleven members attended.

Anne Martin, President, chaired the meeting. She noted that we were celebrating the twentieth anniversary of the founding of the Association. She expressed sincere thanks to Mayor John Rowswell and the members of his organizing committee for hosting Forum 2003 and acknowledged the hard work that had been needed to plan and present the conference

within a short time frame. She also thanked Patrick Coleman, Past President, for the help he gave to the organizers.

In her report, the President noted that members of the editorial committee had been successful in producing four issues of the Winter Cities magazine in 2002. The development of a new website began during the year and discussions about a host for the website and website maintenance are taking place. The Bidding Criteria to host Winter City Forums had been revised and a host city is needed for 2005. A display panel was purchased

during the year for use at trade shows and exhibitions and was first used at the WCA booth, International Winter Construction Symposium in Edmonton, in November 2002. The Association has entered into a contractual agreement with the Anchorage organizing committee hosting the International Association of Mayors of Northern Cities conference in 2004. We have agreed to help with program planning and marketing.

George Paul, Treasurer, presented the financial statements for the year ended December 31, 2002. There was



a surplus of \$1,000 at year's end and total assets amounted to \$38,000.

The following individuals were elected as officers and Directors: Anne Martin, President; Michael Barton, Vice President; Deborah Poff, Secretary; George Paul, Treasurer; Patrick Coleman, Past President; René Akre, Barry Braitman; John Curry; Jerry Irby; Tom Merz; Larry Neal; Doug Nord; Norman Pressman; John Rowswell; Steve Wallace; Terry Weninger; Tony Zedda.

Dr William C. Rogers was appointed as an Honorary Director in recognition of his services to the Winter Cities movement and the Winter Cities Association.

Several others who had made significant contributions to the Winter Cities Association were presented with special gifts marking the Association's twentieth anniversary. These people were Norman Pressman, Founding President, former Presidents Patrick Coleman and Pat MacMahon, Larry Neal, Michael Barton and John Rowswell.

While in Sault Ste. Marie, Board members also held a strategic planning session.

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*Anne Martin is the President of the Winter Cities Association and lives in Prince George, British Columbia, Canada*

# *Sault Ste. Marie Protocol*

## *Winter Cities Forum 2003*

by JOHN ROWSWELL, Mayor, City of Sault Ste. Marie

**E**arly in 2003, delegates from Winter Cities around the circumpolar world gathered in Sault Sainte Marie, Ontario, Canada to discuss mutual challenges and how they might be overcome. At this Winter Cities forum, the delegates developed a Protocol, which reflected, not only the conference theme of Living in Balance, but also the issues they believed to be of highest importance.

Our world is progressing, and we need to grow with it, addressing economic difficulties caused by the threat of climate change, and a rural versus large urban imbalance. We must adapt and improve our infrastructure, and encourage innovation. Our pursuit of balanced growth encourages creative thought, allowing Winter Cities to take a leading role in this new knowledge-based economy.

During this first decade of the new millennium, we will concentrate on balancing economic growth with careful environmental management through implementation of this Protocol, nurturing and protecting Winter Cities for our children, and generations to come.

While we celebrate our naturally gifted Winter Cities, the clean air, fresh waters, and the abundance of recreational opportunities waiting outside our back doors, we are mindful of the challenges we face in our quest for a vibrant, healthy future.

The Sault Sainte Marie Protocol is presented in this edition of the Winter Cities Magazine as a reminder of the vision that was created at Forum 2003. We welcome you to study and reflect on it.

- Winter Cities will demonstrate leadership by preparing for the impacts of climate change on our resources and infrastructure by setting achievable targets and implementing actions to reduce fossil fuel emissions by retrofitting existing infrastructure and exploring renewable energy, and resource protection.
- We must promote excellence and innovation as we plan, design, build and redevelop our Winter Cities with human needs, climate and the natural environment in mind.
- We will achieve healthier lifestyles in Winter Cities through policies and actions that promote community well-being and provide improved access to the best health care.

- We will promote attraction and retention of youth in Winter Cities by increasing educational, cultural and employment opportunities.
- We will pursue partnerships and encourage alliances between business, education and government to overcome common challenges and expand opportunities.
- We will learn from the culture and traditional approaches of our aboriginal peoples toward resource stewardship, and work in harmony with our natural environment to enrich the fabric of our Winter Cities.
- We will preserve our historic, cultural, and naturally gifted identities while pursuing better access to health care, economic stability and job growth.
- We will ensure sustainable communities through economic self-reliance and environmentally sound management.
- We will pursue education and

- invest in knowledge infrastructure, stimulating economic opportunity through research and development.
- We will take an innovative approach to integrating nature, technology, business and eco-tourism.
- We will apply the most innovative and effective techniques to infrastructure renewal and development, connecting Winter Cities through communication and transportation networks, offering safe, efficient and sustainable movement of people, goods and services thereby attracting organizations wishing to conduct operations in less congested centres.
- We will celebrate our rich natural environment and contribute to the social and economic health of our Winter Cities through festivals and other community events.
- We will celebrate and promote our Winter Cities as places to live, work, and raise families.
- We will encourage tourism sectors

- to band together, presenting a strong, unified voice to demonstrate the value of tourism to economic development of job creation in Winter Cities.
- We will generate economic development through policies that stimulate employment and investment, reward innovation and encourage the decentralization of government activities.

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*Questions about the Sault Sainte Marie Protocol may be directed to Mayor John Rowswell, President - Winter Cities Forum 2003 c/o Civic Centre, P.O. Box 580 Sault Sainte Marie, Ontario, Canada P6A 5N1 Telephone: 705-759-5344 Fax: 705-541-7171 E-Mail: mayorjohn@cityssm.on.ca*

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*from page 5*

indoor recreation activities they participate in during the winter season. The most popular activities are outdoor-oriented and include downhill skiing/snowboarding (36%), hiking/walking/running (26%), cross country skiing (22%), snow-shoeing (21%), ice skating (15%), and hockey (11%).

The most popular indoor activities include swimming (8%), indoor exercise (7%), team sports (5%), and movies (4%).

The survey results demonstrate that most Marquette residents possess a positive attitude about winter and

that they take advantage of the outdoor recreation opportunities afforded by the city's location, natural environment and climate.

The survey results can now be incorporated into goals and objectives for the new Master Plan to guide city decision-making about how to improve winter livability. For example, investments in outdoor winter recreation facilities, including more ski trails and ice skating, will emphasize the positive aspects of winter living and appeal to a large group of residents. Efforts to overcome winter's challenges, such as innovative snow management and street/walk-

way design can make it easier to "get around", reducing some of the inconvenience of winter living. Considering cold and wind in site design for outdoor and public spaces can also help mitigate negative attitudes and perceptions.

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*Patrick Coleman, AICP, is immediate past-president of the Livable Winter Cities Association. He is a town planner and president of U.P. Engineers & Architects (UPEA), a multi-disciplinary design firm serving the upper Great Lakes region. UPEA is part of a multi-firm team preparing Marquette's Master Plan.*



# Denmark Design Conference

## Winter Cities Planning & Urban Design

### Conference held in Denmark 2003

by NORMAN PRESSMAN

A design-oriented winter cities conference was held in January 2003 at the School of Architecture, University of Aarhus, Denmark. Most participants were from the Nordic countries, but Canada and USA were also represented.

Numerous architectural projects with a focus on cultural, institutional, and residential buildings were highlighted reflecting recent trends in building design concepts from Iceland, Greenland, Norway, Finland, Denmark, and Sweden. Patrick Coleman, AICP, of Houghton, Michigan, described the planning process and design for a new downtown park featuring winter activity in Marquette, Michigan and Norman Pressman spoke about international developments across the northern hemisphere in terms of urban design as it relates to climatic factors.

It was generally postulated that urban design and planning are influenced by imported building customs, design rules, global technology and international market forces - but that greater inspiration should spring from climate, terrain, lifestyle and human needs. We have made progress in these realms but still have a long way to go!

Sigurdur Hardarson, from Reykjavik, made it absolutely clear that climatic aspects should be visible in form and expression and be integrated in all aspects of a project. Stylistic trends, from more southern latitudes, are too pervasive, and he

made a plea to build fewer high-rise buildings in urban areas because they cause increased windiness (and resulting wind chill) and project lengthy shadows, especially at high northern latitudes (Iceland, for example). In his "Gjols" project - a theoretical project on applied climatology in architectural design - he concludes that in housing estates located in winter regions, 2-4 storey courtyard housing works best bringing more sunlight into the open spaces and reducing wind levels. Still more improved conditions can be provided by utilizing shelterbelts (vegetation carefully planted to screen from the windward-side) and doing solar-access and shadow impact studies. The 'bottom line' is that we must use all strategic devices to protect outdoor public areas from wind, especially where wind is intense, sun angles are low and drifting snow is a problem. Maximizing solar exposure is also fundamental.

Professor Jan Gehl, of Copenhagen spoke about the 'long, gray' winters and 'short, sweet' summers typical of Scandinavian nations. As the comfortable 'outdoor' season is limited to about seven months each year, he suggests that it is essential to create excellent late spring and summer conditions which induce 'easy living,' 'informal socialization' and 'spontaneous' outdoor activities and events of a public nature. This is to compensate for spending so much time indoors in the 'bad' seasons.

Scandinavians can teach us about high-quality interior design - as

they spend lots of time indoors. Southern Europeans have superb examples of public urban spaces since they profit from a lengthy outdoor season. North Americans can learn from both these societies. In Copenhagen, to extend the outdoor life of outdoor café terraces, woolen blankets are provided to customers during 'cool' days and nights.

In conclusion, all agreed (some 85 people) that following international fashion is not the recommended way to proceed and that the built environment should be a genuine reflection of northern lifestyles, diverse climate (all relatively harsh), with policies, guidelines and building regulations in accordance with 'winter master plans' echoing northern culture and emphasizing local and regional identity - while thinking globally. We must urgently apply the knowledge we already possess regarding climate while advancing the frontiers of urban design and planning in a way that acknowledges a true sense of northern place.

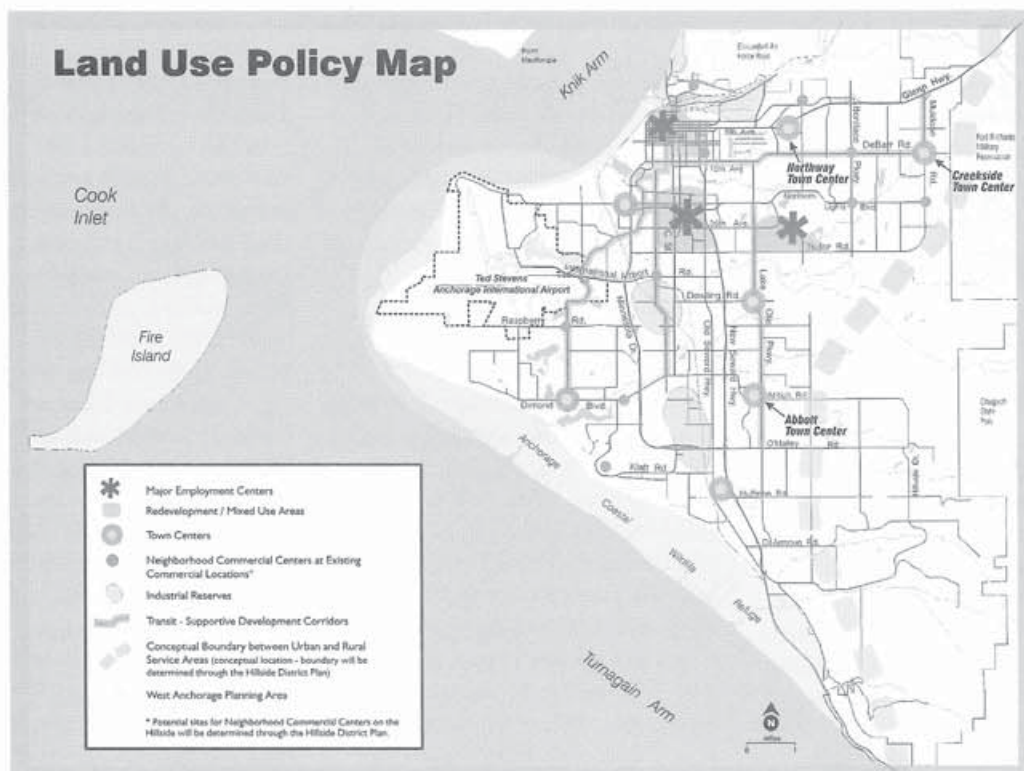
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*Norman Pressman is a consultant in cold-climate urban planning and design, and Professor Emeritus of Urban Planning (University of Waterloo). He has worked across the circumpolar nations and is an international authority on climate-adapted urban design. His book "Northern Cityscape" received an Award for Planning Excellence from the Canadian Institute of Planners and has been translated into Japanese (2001)*



# Anchorage Tailors Town Centres to its Northern Climate

by TOM NELSON, TOM DAVIS AND ERIKA McCONNELL



*This Anchorage Municipal land use map locates the seven town centers planned for Anchorage including the Northway, Creekside/Muldoon and Abbott town centers discussed in this article.*

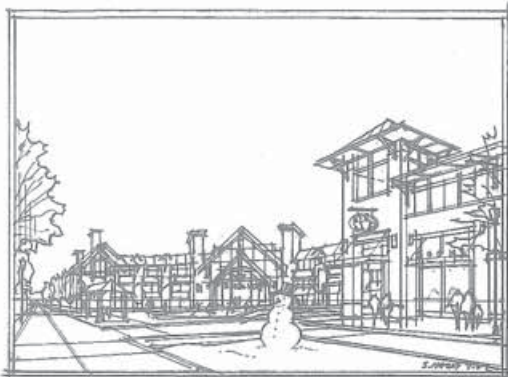
Anchorage, Alaska achieved a milestone in February of 2001 when it adopted northern design policies and strategies as part of its comprehensive plan, Anchorage 2020. The city now faces the challenge of realizing the community vision that underlies the plan. Implementation of the new ideas in Anchorage 2020 requires political will and leadership, private sector initiative and cooperation, the creation of formalized processes, financial resources, opportunity, and creativity. This article describes how Anchorage is seizing on a strategy to take on the

challenge of adapting its current urban form to one that better responds to its environment and celebrates its spectacular natural setting.

As Anchorage looked to realize the vision of Anchorage 2020—that of good development practices which reflect the northern environment—the city needed a showcase project of high quality northern design. The strategy in the Anchorage 2020 plan to build seven “town centers” presented just such an opportunity to show the community what northern design could do. The town center

concept was devised primarily as a land use policy that would encourage new development with higher densities, mixed uses, and compact and lively urban spaces. The first three projects have also been recognized as significant opportunities to implement northern design concepts holistically. While the application of design standards (another Anchorage 2020 strategy) to new developments and redevelopments throughout the city is important, developing the town centers has greater potential over the next 20 years to redefine the urban environment significantly and





*A number of sketches were created to provide a vision of what the new town centers might look like. This sketch shows how the existing mall at the Northway site could be renovated.*

enhance the way in which residents and visitors experience the city.

Town centers are a popular emerging development type throughout North America. They could be an especially effective way to ameliorate Anchorage's tremendous seasonal changes: its long winter darkness, its bothersome winter winds, its icy walking and driving conditions, as well as its spectacular mountain views and extreme sunlight angles.

The Anchorage Planning Department chose to advance the town center concept by hiring a consulting team to develop plans for two of the sites. After a competitive process, the selected consulting team was led by Lennertz Coyle & Associates Town Planners and Architects of Portland, Oregon, and included Leland Consulting Group, also of Portland; DOWL Engineers of Anchorage; Seth Harry, an architect and retail specialist from the Baltimore area; and René Akre, an Anchorage native and urban planner with a particular interest in northern design.

Each of the town center sites is composed of many parcels under multiple ownerships with varying degrees of commercial, residential, and institutional uses; each has its own unique

challenges to redevelopment. The town center sites addressed by the consulting team include the Northway Mall site, which lies on the eastern fringe of Anchorage's downtown and includes a struggling 1970s-era enclosed shopping mall, and the Abbott Road site. The Abbott site is about eight miles southeast of downtown and includes a mixture of auto-oriented retail areas, industrial areas, and an older single-

family neighborhood.

Before the consultants began their work, municipal planning staff led residents of each community through a visioning process that provided an opportunity for them to discuss and document their hopes and dreams for their town centers. Their comments addressed both practical and aesthetic aspects of the projects and many focused specifically on northern design considerations. Residents and municipal planning staff recognized the need to emphasize the significance of climatic and environmental considerations in the design process for new development in Anchorage.

The consulting team led Anchorage residents, municipal officials and community leaders through an intense four-day charrette for the Northway town center in February 2002 and for the Abbott town center in April 2002. The charrettes included numerous small meetings with community stakeholders, two public presentations that incorporated public feedback, and studio work sessions that were open to the public.

Although the lead consultants were from a warmer locale and were accustomed to designing town centers for warmer climates, they embraced the ideal of celebrating Anchorage's far northern setting. Through the charrette process, they addressed issues of climate and seasonal light variations in their designs. They took to heart the challenges associated with snow management and protecting residents from the elements. They strove to provide a vision for improving the aesthetic appeal, safety, and convenience of the town centers for all users in all seasons.

The consultants recognized that the core precepts of good northern design (high-density development, mixed-use activities, using the physical form to provide protection from the elements, and using landscape treatments to enhance or mitigate climatic conditions) were easily reconciled with their principles of "new urban" design. They also had to consider the additional value of providing for safety in cold and icy conditions (such as avoiding slip and fall accidents, protecting people from frigid winds, etc.), which is not a major issue in many other locales.

In addition to the town center plans directly advanced by the Municipal Planning Department, a third town center, the Creekside site, has been



*Residents participate in the visioning session held during the Northway town center charrette.*



initiated by the private development firm Venture Development Group in alliance with their key affiliated companies, Neeser Construction and Koonce Pfeffer Bettis (KPB) Architects. The Creekside town center is east of the Northway town center and close to the Chugach mountain range. The plan provides the framework for the phased development of 168 acres that is mostly undeveloped, blighted or can be classified as brownfields.

The Creekside town center idea initially came about as an alternative to locating a large free-standing discount retail store on the site of an old phased out mobile home park. Interest in the mixed-use town center development concept was further strengthened with the possibility of co-locating a new middle school, branch library and community center on a portion of the mobile home park site as well.

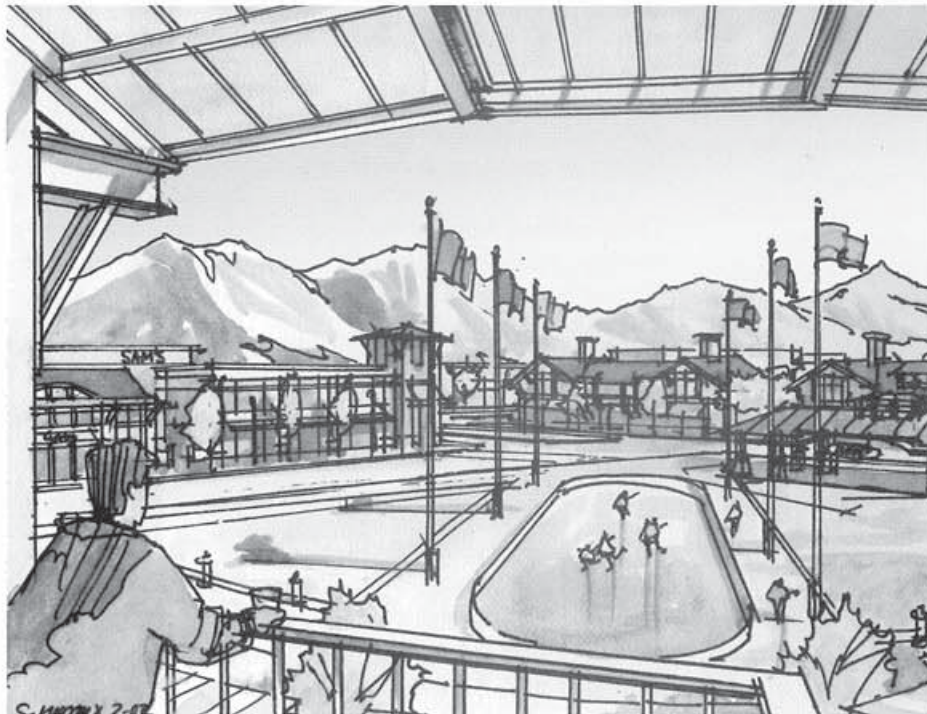
The Creekside town center development concept further expanded to take in some of the surrounding properties. Some existing commercial properties would remain and be incorporated into site design, while other older industrially-zoned properties would be converted to new use. A major challenge for the Venture Development Group with Creekside town center has been the re-routing and design of the roadway system in the area, which includes two major traffic arterials. In their planning efforts, Venture Development Group and its associated planners and designers have been attentive to the physical aspects of northern design and features that promote year-round activities in the town center.

It is hoped that the town center projects will proceed successfully and serve as models of outstanding northern design for additional projects in Anchorage and for other northern communities. The Northway and

Abbott town centers will require a creative partnership of state, municipal and private sector resources. To ensure their success, additional detailed market and traffic studies are being conducted to assess their feasibility. The Planning Department is currently preparing its two draft town center plans for public review later this year. Meanwhile, the private developer of the third town center has already introduced a town center core master plan before the local planning commission. The town center projects can be viewed on the Planning Department's web site at [www.muni.org/TownCenter/index.cfm](http://www.muni.org/TownCenter/index.cfm).

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*Tom Nelson, Tom Davis, and Erika McConnell are municipal planners working on the town center projects.*



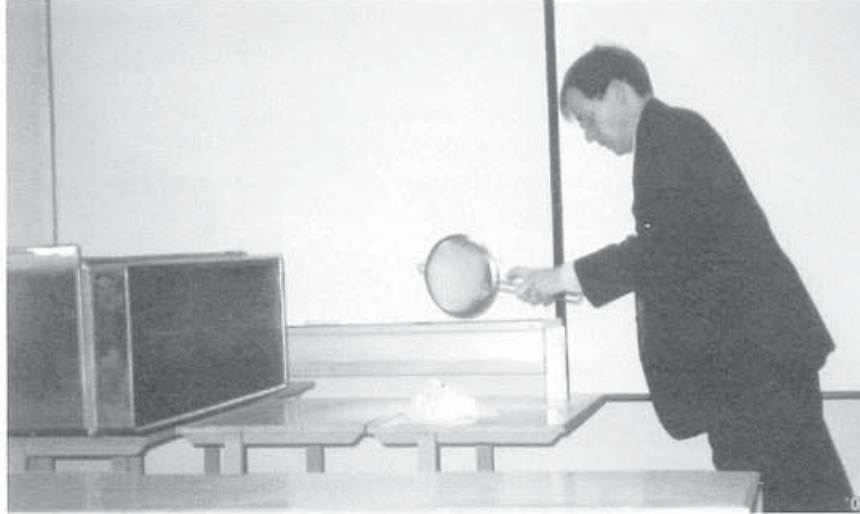
*At the heart of a town center plan for Anchorage, Alaska is public space that can be used as an ice rink in the winter and as a plaza in other seasons.*



# Climate-Conscious Design

*Method utilizes a specially designed wind-test instrument for scale models*

by KIMMO KUISMANEN, Ph.D.



*A demonstration of the wind-test apparatus*

**T**hroughout history, construction has had to adapt to environmental conditions.

In the last century, functionalism and the so-called international style of architecture have spread throughout the world a style of construction which quite often did not fit the site and its climate. Today, environmental and climatic conditions are beginning to resurface as essential design factors and areas of research. Despite many attempts, there have not been any simple methods suitable for practical design work.

In our earlier research reports, we have come to the conclusion that design methods can be grouped in two main lines:

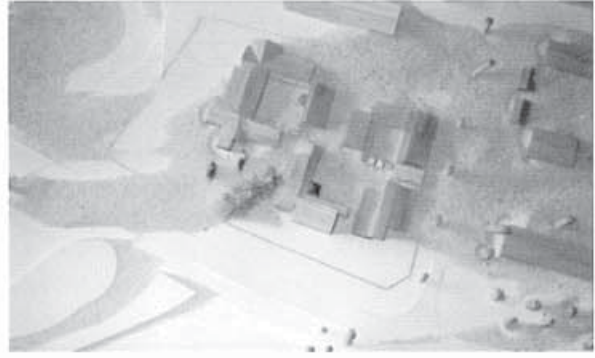
1. A model based on heavy technology, excessive use of energy and capital-intensive investments.
2. A model based on eco-technology, environmental research and more traditional methods of construction.

The demand for sustainable development is the reason for developing a systematic, climate-conscious design method, referred to as the CASE method. CASE is an acronym for Culture, Architecture, Science and Ecology. This method consists of:

- techniques for making micro-climatic and environment analysis
- interpreting the observations
- wind testing of scale models

- methods for making practical solutions in urban planning and building design.

An essential factor in the success of the CASE methodology has been the development of a reliable wind-test instrument, designed by Ab CASE Consult Ltd. The wind-test apparatus is placed on a table and a model is placed a distance of about half a meter from it. Between the blower and the model there is a porous rough sheet which will model the wind profile. Indicator material can be used in two ways. You can put a thin layer on the model and then the airflow will erode the indicator material, thus revealing the windy places and patterns of airflow on the model.



*Tervola Finland. Two alternative solutions of a block were tested with the blower*

You can also distribute the indicator in the air and let it flow around the model. In this case, you can see air-flow and turbulences around the building.

The developed CASE wind test instrument will be available for purchase and priced reasonably so that it can be available to every design professional. It is possible to test scale models even on the floor or on an ordinary table, without any expensive fixed mountings. Ready-to-use, well-illustrated and clear material will be prepared to assist practical design, research and training.

The reliability of the method has been tested in Finland and Norway.

There have been thoughts on the possibility of using the method in desert areas, where the problem is the penetration of sand into interior premises and ventilation equipment.

The first phase of the research was performed by Ab CASE Consult Ltd from Oulu, Finland, and was ready in early 2001. Architect Ph.D. Kimmo Kuismanen was the researcher in charge.

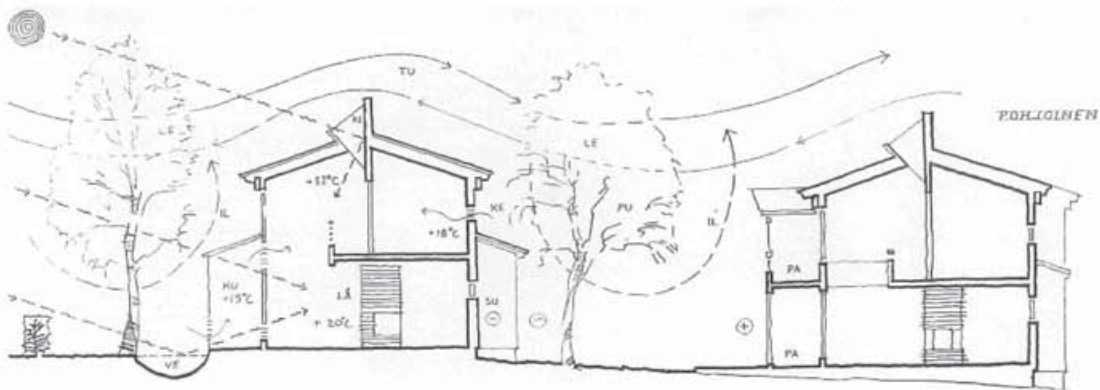
**USE OF THE CASE METHOD**

The method makes it possible to design a better micro-climate for new or old built-up areas. The method can be used in urban planning to ventilate exhaust fumes and other

pollutants, which improves the quality of air and the healthiness of the urban environment.

The analyses and scale-model tests make it possible to shield cold windy areas and to eliminate the cooling effect of wind on facades. According to studies in Scandinavian countries, this will bring energy savings of 5-15 percent. In warm climates, it is possible to use wind for cooling houses. The method can be used to evaluate sites for wind-power plants, too.

Micro-climatic analyses together with scale-model tests make it easier to protect playgrounds, yards, balconies, etc., against wind, which makes these areas more comfortable and extends



*Indoor and outdoor climate can have a harmonious co-existence*



the duration of the outdoor season of the inhabitants in northern areas. Control of turbulent and thermal air-flows in streets and yards makes it possible to filter dirt particles from the air by recycling the air through groups of vegetation used as filters.

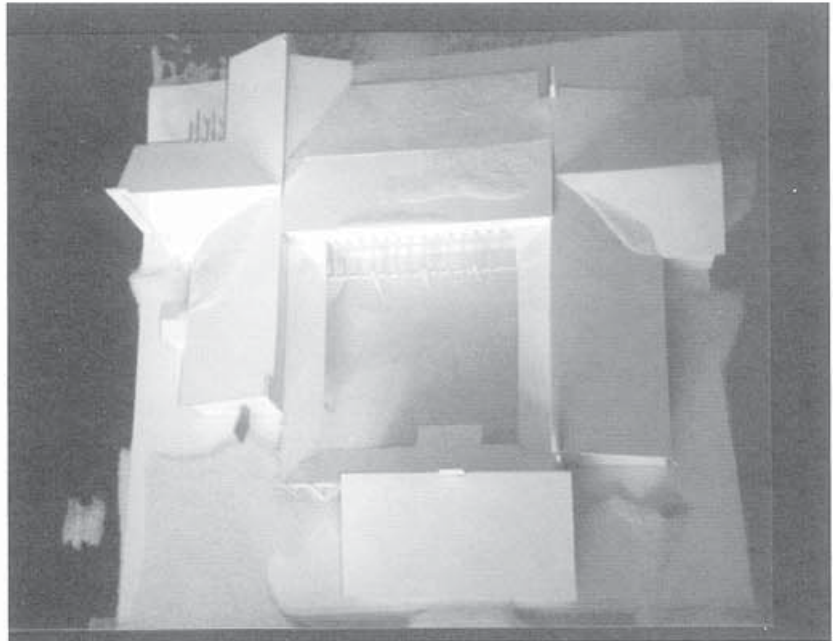
The use of wind-test equipment enables the development of the kind of gutter, window and wall details where snow or sand and oblique rain cannot penetrate. Structures that function better reduce the amount of damage to the building and repair costs, while also extending their lifespan.

Construction related to tourism has many sites where it is necessary to control wind and the microclimate, such as outdoor swimming pools, sun terraces, airports and marinas. In ski resorts, slopes and ski jumps are

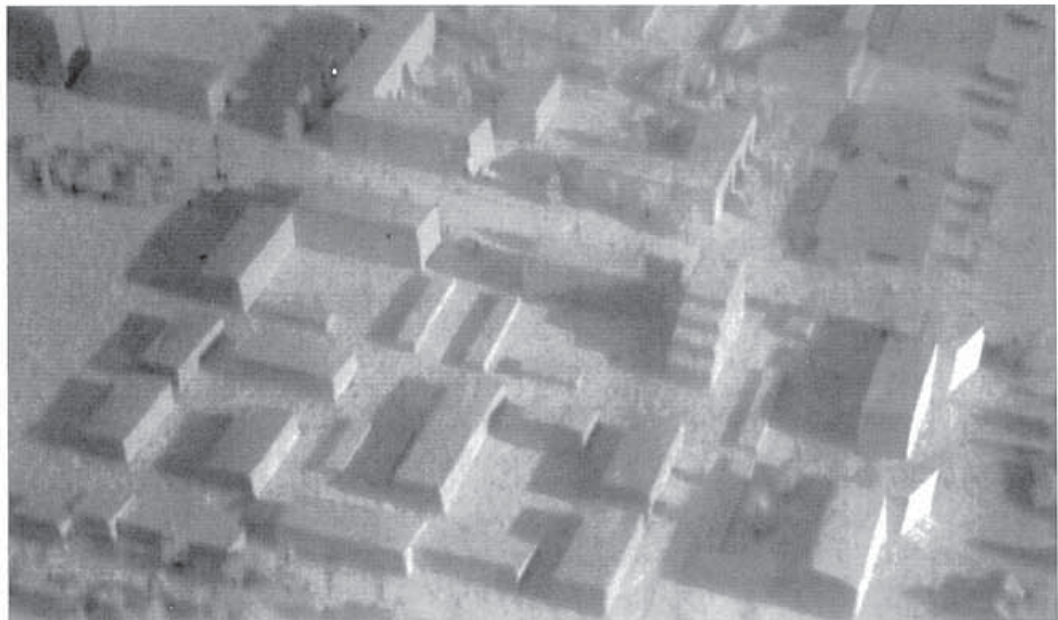
places where the control of wind affects the operation.

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*Kimmo Kuismanen is a Ph.D. architect and partner in Ab CASE Consult Ltd. based in Oulu, Finland. He can be reached at [kimmo.kuismanen@case.inet.fi](mailto:kimmo.kuismanen@case.inet.fi)*



*With the CASE method, it is possible to create a positive micro-climate around buildings*

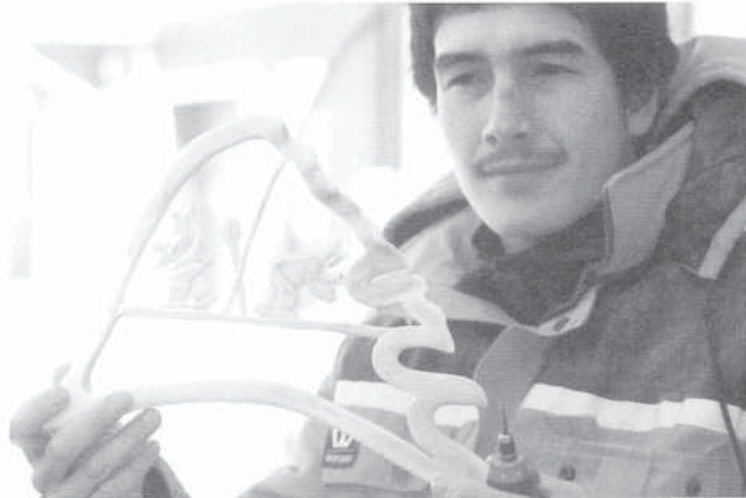


*New micro-climatically designed suburban area centre, Rajakylä Oulu, Finland*

# Arctic Winter Games:

## *Sport, Culture and Growth*

by SAM LANKFORD, Ph.D., LARRY NEAL, Ed.D.,  
CHRIS SZABO and GARY SCHAUERTE



*John Jack Sequin of George River displays his elaborate antler carving. Taught by his uncle, he has been carving since he was fifteen. The Arctic Winter Games promote traditional aboriginal games, sports and cultural activities.*

**M**ore than three decades ago, two visionary commissioners from Canada's Northwest Territories and the Yukon, Stuart Hodgson and James Smith, recognized the need for a focused sporting competition that also would encourage social and cultural interaction among Northerners.

Today, contingents from Canada, the United States, Greenland and the Russian provinces of Magadan and Chukotka participate in the Arctic Winter Games. The Department of Municipal and Community Affairs of the Government of the Northwest Territories, with the support of the Arctic Winter Games International Committee and utilizing World Leisure Associations' Professional

Services, studied the benefits of the Arctic Winter Games in 1998, 2000 and 2002. This article looks at the research methodology and results, and provides background on the Games' history and structure.

### *The Arctic Winter Games*

The original goals for the Games have been maintained since their inception in 1970: to furnish the opportunity to participate in sport, and to encourage and enhance social and cultural interaction of Northern peoples regardless of language, race or creed.

The Games are held every other March. Although the Games are primarily for northern youth of the arctic-circumpolar region, there are par-

ticipants from Northern Alberta, and adults are allowed to participate in open categories in Arctic sports. Each province, state, territory or region has its own selection process that determines the composition of each team. For example, the Northwest Territories has a regional selection process followed by territorial trials. Most communities in the NWT are represented on Team NWT. Most of the participants come from outside of Yellowknife and are from isolated communities.

Government leaders often have underscored the need to walk the delicate line between the youth demands for change and to act like their global peers, and the constant striving to hold dearly to one's local, state, province and country's cultural values. Since they began, the Games



have promoted traditional aboriginal games, sports and cultural activities, uniquely based upon survival skills previously required in the north. This remains an integral aspect of the Games, even as they have been expanded to include other sports.

The Games are now structured into three categories: sports with wide participation (such as hockey, volleyball, soccer and cross-country skiing); traditional northern sports (such as Inuit-style wrestling, snowshoeing and dog mushing) and emerging sports (such as snowboarding and table tennis). Above all, the Games offer a venue in which developing athletes from across the North can meet to enhance their athletic skills, and experience social interchange.

*Is the Countless Time, Energy and Money of the Arctic Winter Games Worth It? Research Provides Answers for Local & Regional Governments.*

Results of the study of the benefits of the Arctic Winter Games are very encouraging and provide a strong rationale for the continued development and advancement of the Games.

These findings will be invaluable to government officials throughout winter cities, validating and verifying some of the common assumptions of value. While this is significant, it also is important to emphasize the substantial benefits realized by youth during the local competitions that lead up to the International Games. During these events, even larger numbers of participants benefit from the opportunity to enhance their self-concept, pride and overall sense of accomplishment as they are cheered on by local supporters.

The findings provide a clear rationale for generating NGO, gov-

ernment and private support for the Games. In addition, there appears to be very strong linkages to the need for community programs to support these young people before, during and after the competitions. These programs are related to community development and social service issues as well as recreation, sport and cultural programs. The findings also correlate with those of the Sport North report, "The Benefits of Sport in the Northwest Territories"; specifically, that sport participation (training and competition) is a major feature in the lives of young people in the Northwest Territories.

*Research Process: Documenting the Worth of Arctic Winter Games*

Within the 32-year history of the Games, this study provides the first comprehensive database to evaluate the programmatic goals and expected outcomes. The research focused on, but was not limited to, documenting the personal, social and community benefits of involvement for four different groups: participants (athletes and cultural performers), volunteers, community leaders and coaches in the International Games and the selection process leading up to the Games.

The World Leisure Professional Service researchers met with Northwest Territories representatives for a week-long workshop on survey development and research methods. Using nominal group techniques, the researchers helped the team develop a draft research instrument and field-tested the questionnaire. Further testing and modifications were completed during and after the regional trials in the NWT. A team of staff from Municipal and Community Affairs and Sport North of NWT were also involved as researchers in

the data-collection process during the regional and territorial games and final Arctic Winter Games.

The research was completed in three phases for all the Games in 1998 (Yellowknife, NWT), 2000 (Whitehorse, Yukon), and Iqaluit, Canada, and Nuuk, Greenland (2002). During phase one, a sample of participants who registered for the regional trials filled out a survey and returned it to their regional coordinator along with their completed registration form. In phase two, a sample of the participants at the territorial trials filled out a survey related to their involvement at this level. Finally, phase three involved surveying a sample of the participants who competed or performed in the actual Arctic Winter Games. In the 1998 study, we only surveyed NWT participants in the Games themselves, as this was our pilot study. Overall, over 2,000 surveys were collected from NWT participants at the three stages of involvement in 1998.

The survey explored issues relative to athletic competition, cultural and social interchange, spirit of fair play and training. Questions also addressed "being northern" and "northern sports," and how the Games related to and contributed to the uniqueness of the north. The survey also contained personal data questions and areas where the respondent could add qualitative information.

Males made up 55.3% of the sample while females comprised 42.2%. A total of 79% of the male respondents were athletes, while 77.9% were female athletes (the others were cultural performers). Respondents indicated that 46.2% have participated in previous regional, territorial or Games in the past, while 50.1% indicated this was their first year of competition. The



ethnic background for the athletes consisted of: 11.2% Inuvialuit; 14.1% Dene; 6.8% Metis; 10.7% Inuit; 50.8% Non Aboriginal; while 10.5% provided no answer.

Athletes indicated those that motivated them to become involved in the Games were coaches (48.2%); friends (45.3%); other athletes (42%); parents and relatives (40.7%); previous participants (20%); recreation leaders (14.9%); and teachers (11.1%). Approximately 6% indicated they became involved on their own initiative. These findings indicate the relative importance of role modeling and the strong influence of peers relative to leisure, active lifestyles, and sport and cultural involvement.

Five distinct personal, social and community benefit segments emerged from these 2000+ participants, of the benefits of participation in the Arctic Winter Games; they are:

- Excitement, Challenges and Positive Experiences
- Enhancement of Self-Esteem and Growth in Personal Outlook
- Healthy, Challenging and Competitive Opportunities
- Sense of Belonging and Strengthening of Community Ties
- Promoting Socialization and Strengthening Cultural Awareness

The first set of personal, social and community benefit statements are best depicted as "Excitement, Challenges, and Positive Experiences." Respondents overwhelmingly stated that participation in the Arctic Winter Games is fun. Findings showed that participation gives them an opportunity to enjoy sports, provides interesting experiences to tell friends, and results in many happy memories.

The second set of personal, social and community benefits cluster

under the category "Enhancement of Self-Esteem and Growth in One's Personal Outlook." Questions reflect perceptions of self, improvement through sport, and cultural experiences.

The third major set of benefits related to "healthy, challenging and competitive opportunities" for youth. Athletes overwhelmingly showed positive regard and attitudes toward healthy lifestyles and competition. Of particular interest is the improvement in physical fitness levels, skill development and competitive sports. The following quote further sums up the complimentary aspects of teamwork and sportsmanship:

The fourth set of benefit statements addressed the "Sense of Belonging and Strengthening of Community Ties." This set of questions represents awareness and appreciation of the community; often for these athletes and performers – their first such awareness. In terms of being tied to their northern communities, many athletes made comments similar to this: "If it weren't for the Games, no one would be doing arctic sports or work hard on cultural performances in our community." It also is important to note the significance of this set of questions in that connections with community development exist. As an NWT athlete noted: "... all the students in our community and school know about the Games, we can thank two gung-ho officials ..." This points out the importance of the Games and the networking that takes place. In short, there is a cumulative and powerful force strengthening northern communities through involvement not only in the final [international] Games, but in the more localized regional and territorial training and trials process.

The final set of benefit statements identified include "Promoting

Socialization and Strengthening Cultural Awareness." Many positive outcomes were expressed. In terms of cultural awareness, as one participant in the cultural workshop noted: "... the organizers pay more than lip service to the Games, they are committed to making the studio workshop a success ..." Another athlete noted that the "... Games and the competition leading to the Games provide an opportunity to educate athletes in terms of race, religion and language ..." Certainly, participants become aware of their neighbors, near and far, and begin to accept the uniquenesses and differences through these experiences.

Political leaders at all levels in northern cities should be very encouraged to see that the goals of the Arctic Winter Games have been realized and possibly exceeded for more than three decades. The spirit of play, competition, inclusion, development and understanding of other people were realized through participation in the Games. Furthermore, there appears to be significant community benefits related to the concept of community development, developing a stronger sense of community and, consequently, building healthier lifestyles and communities.

The findings also support personal benefits (youth development), social and cultural benefits (leadership, mentoring, understanding, and increased socialization), economic benefits (health and fitness improvement, contributions by volunteers), and environmental benefits (development of facilities and areas for sport and culture). As one anonymous observer noted, "... Sport and culture are not options. They are essential parts of our lives; maybe even more so in the North. It is an integral part of the social, spiritual and mental fabric of our society ..."

Respondents clearly indicated



that the training, trials and competition have provided significant opportunities to get to know other cultures and ways of life. Importantly, they experienced cultural and social interchange situations unlike any in their past or possibly in their future. Truly, participants experiencing the Games are changed individuals following the week-long experience. When asked to express this in their own words, the following comments were offered:

- The sports and traditions are found only in the north and the Games allow people to try/see and continue these traditions
- It helps people [us] show their [our] culture
- They contain sports and cultural presentation — not practiced elsewhere
- Having the cultural shows truly enhanced my experience
- If the Games do not promote our culture and sports, they will die in the community; this is how important they are
- Because there are so many different cultures, this is living proof that we can all work together
- Increases the chances of “people remembering”
- Gives us [youth] a chance to learn from older kids, good to mix junior and seniors both in sports and socials
- By exposing them to the Games and cultures, an awareness is made that is not done in everyday life in the villages; I guess I’m saying the Games are unique
- Some sports would not be practiced anywhere in the north if not for the Games; we’re proud of our roots
- Gives other people a chance to understand our culture
- Brings us together and builds/maintains our traditional cultures

- It challenges the kids and gives them something to work toward and encourages other kids to follow
- Always have the people from Russia and Greenland to share their cultures; they were great
- You watch and you learn
- We have to keep them going; practice and perseverance pays!

Overall, positive outcomes were expressed for building excitement and involvement of people in their own communities; supporting athletes; involvement of all communities — state, province or territory; having pride in being Northern; making new friends; and interacting with and understanding other cultures. It is important to underscore that throughout the many responses, thousands of respondents indicated that the cultural program aspect of the Games were very important, and that their involvement with the Games do significantly increase their desire to become involved in other community events in their village, community or town.

Being able to confirm the benefits of participation provides opportunities to develop additional training programs, coaching programs, and events for communities. Obviously, this documentation allows an opportunity to fund-raise and support activities for sport and cultural activities for youth in the north. The following anonymous quote embodies the spirit of play, sport and culture in the north: “The competition is against no one and involves everyone. The true spirit is brought out in everyone.”

This article was printed for the specific encouragement and benefit of community leaders to enhance the lives of people of the North. Through such activities as those of the Arctic Winter Games, your com-

munity can further enhance and strengthen its citizens. This longitudinal study over the past eight years in the North is further proof and testimony of the social and community benefits of such an investment in our youth.

For more information on the personal and community benefits, research and references, please contact Dr. Sam Lankford, Director, World Leisure Professional Services, UNI, HPELS, Cedar Falls, IA, 50614, sam.lankford@uni.edu or www.worldleisure.org. Please visit www.awg.ca to view and download the reports from which this article was written.

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*The article was authored by:  
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*Dr. Larry Neal, Director of Pacific Northwest of WPS and Professor Emeritus, University of Oregon, Eugene, OR*

*Chris Szabo, recreation consultant in the Sport and Recreation Branch, Alberta Community Development.*

*Gary Schauerte is the Acting Manager of Sport & Recreation, Municipal and Community Affairs, Government of NWT, Yellowknife, NT.*

*The photograph was provided by Mike Dilley, a well-traveled film and television producer living in Eugene, Oregon. He is currently producing a documentary on northern sports and culture titled “So Cool.” A featured segment of the documentary will be the introduction of northern sports and culture by northern youth coaches to lower 48 youth at an event in Oregon. Support for the documentary has been received from the Government of the Northwest Territories with the assistance of Dr. Larry Neal (University of Oregon) and Dr. Samuel Lankford (University of Northern Iowa). Email: producer@cyberis.net.*



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Members are encouraged to submit articles, book reviews, events and other news to the Winter Cities Magazine. We also welcome your suggestions for possible topics and authors you would like to see in future issues. The editorial staff may be contacted at [wintercities@aol.com](mailto:wintercities@aol.com) or c/o René Akre, 305 Virginia Avenue, Ann Arbor, MI 48103, 734.645.7874.

Articles are generally 1,000 - 1,500 words. Greyscale images are preferred in a tiff or eps format. High-resolution jpgs are fine. Scanned images should be set to 300 dpi (150 line screen) minimum.

The Winter Cities Magazine is published in February, May, August and November. The submission deadlines are the first day of the month of December, March, June and September.

### BIENNIAL WINTER CITIES FORUM AND TRADE SHOW

Invitations are extended to North American municipalities to host a biennial (odd numbered years) Forum and Trade Show. Bidding criteria are available from the Association and via e-mail: [nechakoriver@shaw.ca](mailto:nechakoriver@shaw.ca).

Web site: under development