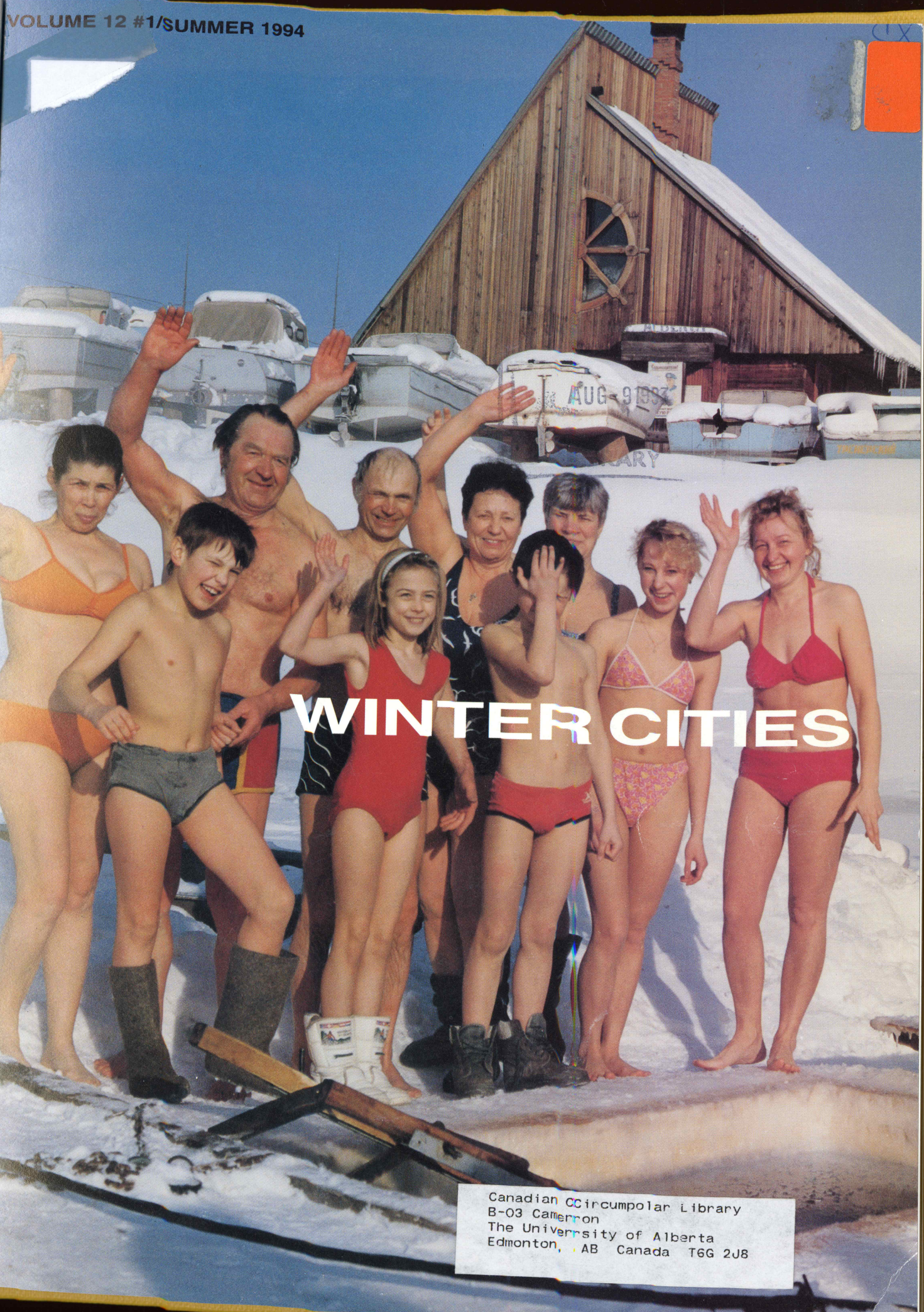
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WINTER CITIES

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WINTER CITIES NEWS

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editorial

Questioning Authority

A Candid Letter Aims to Set the Record Straight

It is amazing - your "Winter Cities News" is getting better with every new issue and I would like you to know that this is one of the few periodicals which I read cover to cover. It has true international class and I hope that it has achieved the global circulation it deserves. Because of my involvement in municipal planing, I was particularly impressed by the Spring '94 issue.

A small article entitles, "Neo-Traditional Debate Rages On", hit a raw nerve. Andres Duany and Elizabeth Platek-Zyberk are absolutely right in their analysis of contemporary suburbia's deficiencies. But they are only repeating what we have been well aware of for the last thirty years and for that they are getting an undue amount of publicity.

There seems to be a collective amnesia about the work of our home-based professionals who have been desperately warning us since the early sixties about the disastrous course urban planning was taking and about the cancerous sprawl of suburbia in particular.

While we can endorse Duany's critical analysis, the remedy he proposes is grossly naive and typically southern. It is somewhat puzzling why there is so much difficulty in engaging our domestic talents.

Moshe Safdie told us three decades ago that everyone, even those living in dense urban environments, can have a garden; and if Canada had given him an opportunity to develop his ideas further, perhaps Florida planners would be coming here today to learn how to build better compact communities. John Hix preached the virtues of a "Main Street" ages ago and designed ingenious plans for new towns with a "Main Street" axis out of which residential streets branched in alignments to allow maximum possible exposure to the sun for adjacent homes.

Canada is a large country with many different unique regions both natural and human-made. Both community and architectural design must reflect that. For years Michael Hough has been telling us how important it is to respect topography and local natural systems in planning and designing human settlements. Architectural expression must, of course, grow out of a "sense of place" as Arthur Erikson has and is teaching us through his work.

Our unique Canadian climate? Arni Fullerton, an internationally recognized architect, has for the last twenty years been designing buildings and communities for regions where cold and miserable weather dominates for at least half the year.

Our unique cultural and social environment? Certainly, we are finally accepting the fact that this continent has been inhabited for thousands of years. Many Canadian architects are discovering a rich source of spirituality and artistic inspiration in native cultures.

Douglas Cardinal is helping us to understand these inherited treasures. But if we must look for inspiration outside the country, would it not be more appropriate to search among the circumpolar countries which in many respects resemble Canada? Would it not be better to ask Ralph Erskine how he would design a better residential community on the outskirts of Calgary?

It seems that the whole excitement about "top-down" versus "bottom-up" style of planing is largely irrelevant. The form of future settlements and even architectural expression will be determined by many technological and societal undercurrents which we still have difficulty grasping.

Although it is difficult to guess where the permutations of all the trends will lead us, one thing is certain: consideration of cold climate is fundamental to any architectural design and community planning in this part of the world. Yet design with climate is notable absent in any of Duany's plans.

Rather than a "raging debate", we need an all encompassing, unbiased discussion and exchange of knowledge in a calm environment where the participants would hopefully demonstrate their openness and intellectual discipline without forcing their "a priori" beliefs on others. Most importantly, we need experiments to test our findings.

Perhaps, this is too much to ask. In spite of all the accumulated knowledge to date and all the warnings, we, as a society may still choose to do silly things for a long time. Students of history should not find this surprising. **WC**

Vladimir Matus is a Toronto based Architect and Urban Planner

news

Hotel Siberia

Fellow Canadians would call Ron Bullen's latest brainchild a decent motel.

He constructed the $7.7 million project 2,000 kilometres northeast of Moscow in the oil town of Khanty-Mansiysk and the local Siberians have christened it "the palace".

In reporting completion of the 108-room hotel and business centre, son and partner Brent Bullen praised Canadians who supervised and trained Russian construction workers for sheer endurance.

About 40 specialists from Alberta and British Columbia "coped extremely well with the hardships of Siberia" for a year.

"They had no hot water, no bathtubs or showers, poor water quality and very often poor food. There was no power, water or sewer at the work site, and certainly no local store to go to for supplies.

"They were stung by the cold in the winter and by hordes of mosquitoes in the summer," said the younger Bullen.

It was, his father added, a lot like the northern Alberta homesteading frontier where he grew up in the 1940s. The main difference is that the continental climate deep in the interior of Russian land mass is a few degrees more severe.

Although Khanty-Mansiysk is still reasonably southern, at about the same latitude as Yellowknife, temperatures range from extreme winter lows around -60C to summer highs near 40C.

The hotel had to be built on pilings driven into permafrost. Outdoor work kept going as long as it stayed warmer than -40C to assemble materials shipped in from Canada and western Europe via ships, trains, barges, ice roads and air freight.

The one thing that is plentiful in Khanty-Mansiysk is money.

The town is capital of a province-like, 530,000 square kilometre district that yields 80 per cent of Russia's oil output and attracts the most foreign investment in its petroleum industry.

With a month to go before its official opening on the anniversary of Lenin's birthday April 22, the new complex is already 80 per cent booked for the next year.

It will cost travellers about $150 US per night - cash, no credit cards accepted yet - for rooms left over from block bookings by oil companies and Russian production agencies working on proliferating joint ventures in the area.

The Bullens report new projects and partnerships are still possible, although western businesses must be fast on their feet to stay in step with new decrees, attitudes and officials spawned by political upheavals in Moscow.

But adaptability is a trademark of this prominent Canadian business family.

Ron Bullen founded Canadian Fracmaster Ltd., built it into a leading oil field service firm in the 1960s and 70s, then converted it into a pioneer or Russian work as the Alberta oil industry slumped in the 1980s.

After Fracmaster attracted a takeover by Dutch-owned Emergo Canada Ltd., he started over again in Russia as Valens Developments ltd.

A subsidiary that built the hotel, Cantex International Ltd., has been sold to partner Simon Vinnik, a Russian who emigrated to Canada before returning to his native land as a business leader.

But Bullen calls the hotel only the tip of an iceberg of developments for his organization Valens currently has about 200 employees working in oil and housing in Siberia and the Black Sea region.

As he packed for his 37th trip to Siberia in 27 months, Bullen described succeeding in Russia as a case of being willing to go out to its outback and "re-engage" constantly with rugged changing conditions. **WC**

Rideau Revival

The much-hated glass bus shelters that lined Rideau Street in Ottawa are being reassembled as a "crystal palace" in Perth, Ontario. The Shelters were erected in 1983 to protect pedestrians, but ruined local trade and created an eyesore on a street that leads directly off the ceremonial route. After much public grumbling they were dismantled last year and sold.

John Stewart of Commonwealth Historic Resource Management had the idea to join 36-metre sections of them to form an arced structure 6 metres high. The structure will be erected this spring on derelict land near the canal in Perth's town centre, and will serve as a combination farmers' market and theatre.

Through the entire process of construction, demolition and relocation it has become evident that winter city projects must accommodate all levels of municipal existence. Fortunately, the shelters were not a complete write-off.

However, this episode stands as a poignant lesson that nearsighted development, even for the right reasons, can carry heavy costs. **WC**

China Threatened

A cloudburst recently dumped black rain on this hilly city, a rain inky black with grime and nearly as acidic as vinegar.

It seemed a warning that the heavens could hold no more of the filth belched out of smokestacks in the Chongqing region.

Pollution is threatening all of China, where a fragile environment must sustain more than one-fifth of the Earth's population.

As the country goes through its own double-step Industrial Revolution, factories crowd cities and surrounding countryside, ruining the air, the water and the land.

The government is drafting action plans, fining polluters and scrounging for cleanup funds.

"But the quality of our country's environment still hasn't improved much," the state-run legal Daily said recently. "The environmental quality of worsening in a lot of places."

Two of the world's seven cities with the worst air pollution are in China: Beijing and Shenyang. Benxi, an industrial centre in the north, disappeared from satellite view for a period because its skies were so dirty.

Air pollution has become the leading cause of respiratory disease in the country.

Information from the Public Health Ministry indicated chronic obstructive pulmonary disease, linked to exposure to fine suspended particles and sulphur dioxide, was responsible for one of every four Chinese deaths in 1988, says a confidential World Bank report.

Much of the air pollution is from coal, which accounts for nearly three-quarters of non-renewable energy used in China.

China's water pollution is just as bad and there's not much water to begin with. Per-capita water reserves are only a quarter of the world average and shrinking. More than 300 cities face water shortages.

Half of the urban ground water resources are polluted, as are many of the rivers and lakes that surround China's cities.

Economic loss from pollution totals $11.5 billion US a year - more than three per cent of the gross national product. And 1.5 per cent of GNP is needed just be stabilize the situation, said Guo Xiaomin of the National Environment Protection Agency.

Other countries are helping in places like Chongqing. The Danes, for example, are helping the city build a sewage treatment plant. World Bank loans will be used to refit old factories and move major polluters.

The World Bank has also begun to finance major environmental projects elsewhere in China, including a $125 million US program to clean up Beijing. **WC**



Managing Climate Change

For sustainable development initiatives, climate change is perhaps the most pervasive uncertainty for long-term planning and management of renewable resources. Central to understanding the potential implications of Canada's ecosystems is the newly published Ecoclimatic Regions of Canada, an ecological framework that characterized ecosystems by their distinctive ecological response to climate.

As climate is one of the single most important factors governing ecosystems distribution and composition, anything that is likely to substantially change the climate can have major primary as well as secondary impacts. To find out what these impacts could be, climate/ecosystem response models are used. When the ecoclimatic framework of Canada was initially modelled for the warmer conditions specified by the New York based Goddard institute for Space Studies general circulation model, significant changes were seen to occur.

A forecasted scenario for the year 2050 shows a very different composition of ecosystems in Canada. Spatially the distribution of ecosystems changes as well. No longer will we have broad homogeneous east-west "bands" of ecosystems, but rather a patchwork mosaic. Some ecosystems will be new, and other just modified in location and extent. Consider how commercial forestry operations within the boreal forest (the horizontal band that transects mid-latitude Canada) could be affected with a 14% decrease in area and with the bulk of this ecosystem shifting to the Canadian Shield landscape of Northern Quebec. **WC**

For more information, contact: Brian Rizzo, Sustainable Development, Environment Canada, Ottawa, ON K1A 0H3.



Frigid Fast Food

Intrepid explorers planning an assault on the North Pole need not worry about finding food: McDonald's now flies Big Mac hamburgers high above the Arctic Circle.

Call it the ultimate takeout. The McDonald's restaurant that opened in Yellowknife a year and a half ago has caused a sensation by sending orders to tiny Inuit settlements.

While it hasn't shipped to the North Pole itself, McDonald's offers "flythrough" service to such far-flung places as Resolute, Rankin Inlet and Frobisher Bay.

"We've had big demand from places north of the Arctic Circle," says Alan Kaylo, owner of the McDonald's franchise. "We've sent anything from 30 to several hundred Big Macs at a time.

"They phone the orders down. Somebody in a place like Inuvik can be eating a Big Mac within three hours of them being put on the plane."

About 62,000 people, more than a third of them Inuit, are scattered across this vast expanse bigger than India where temperatures can sink to -50C.

Fast food is a far cry from the traditional Inuit diet of caribou and whale. But McDonald's gold arches are a familiar symbol to the Inuit, thanks to satellite television. "They've seen the ads on TV and they are fascinated to see and try (the food) for themselves. It's a real novelty," says Kaylo.

The restaurant cooks the burgers in Yellowknife and sends, them, chilled, by bush plane. Once they arrive, they are reheated by microwave.

"We get people lined up waiting for a Big Mac," says Craig Dunphy, manger of the Inuit-owned Sanavik Co-op in remote Baker Lake, which has a population of about 1,000.

"We couldn't make them fast enough. We just nuke them in the microwave for 45 seconds or a minute, and they eat them on the spot. They taste great."

The only thing McDonald's won't send is french fries because of difficulties making sure they have the right crispy texture.

While some may question the wisdom of encouraging the Inuit to develop a taste for junk food, others say that sentiment reflects outdated paternalism.

"It's no different up here. You see a commercial on television and it makes you want something," said Dunphy. **WC**

On the Offensive

Ottawalk joined a number of other groups appearing before Ottawa Council in December to oppose a staff proposal to cut back on sidewalk ploughing. Council listened and then rejected the proposal to leave it to adjacent owners of sidewalks in neighbourhoods in which pedestrian volumes are low to do their own clearing.

This led to the formation of an Ottawa subcommittee on winter walking. A brief is on its way to the city. It suggests just the opposite: increase standards for pedestrians - and decreased standards for motor vehicles - as an important way to save tax money and the environment, to support full accessibility for the disabled, and to reduce injuries for all:

- Call on property owners to augment, not replace city ploughing.
- Ban the storage of now in crosswalks and bus stops.
- Experiment with subletting snow clearance to groups of owners on a street, both to save money and to better coordinate street and driveway ploughing.

In a related matter, president Majorie Fulton wrote to Mayor Holzman taking issue with her statement on television that salt damage to the paws of seeing-eye dogs was unavoidable since pedestrians demand bare sidewalks. Ms. Fulton pointed out that Ottawalk does not demand bare sidewalks, but rather a well-packed base of snow is fine and that the use of salt is harmful to boots, clothes and the environment. However, sidewalks should be completely cleared during a thaw when the packed snow turns to slush and then to ice. Salt can be used judiciously as a temporary aid, but then removed along with the ice. The Ottawa official plan contains a statement mandating safe and dry crosswalks and sidewalks. **WC**



WinterNet

Northern cities worldwide are being linked by WinterNet, an information system and data base for the exchange of winter related policy, management and development issues, operated out of Edmonton, Alberta, Canada. Jan Reimer, Edmonton's mayor, proposed and won endorsement for the organization of the network by other winter cities joined in NIC, the Northern Intercity Committee, among them Innsbruck, (Austria), Minneapolis MN (USA), Montreal (Canada), Sapporo (Japan), Tromso (Norway) and Shenyang (China).

The WinterCity information base includes five major applications, including:

• a registry of organizations, government departments, firms, and individuals responsible for winter city operations;

• electronic mail for exchanging information with and among the participates identified in the registry;

• teleconferencing and electronic bulletin board services;

• an electronic library service with multimedia documents and reference materials relating to cold climates;

• a data base with information on operating procedures, equipment and technologies of specific winter cities, including snow removal and disposal policies, road management and alternative snow melting systems.**WC**

For further information, contact Joni Mines, the WinterNet Administrator, in Edmonton, Alberta, at Telephone: (403) 496-6100; Fax: (403) 428-4665.

The Colour of Efficiency

The glass component of a modern building is no longer a stand-alone item. Gone are the days when the architect chose glass strictly as a colour to match the overall design. Colour is still important, but the glazing system is now required to integrate with a host of energy management features which make today's buildings efficient.

The Canada Trust Centre in Kitchener, Ontario is a twelve storey 150,000 ft2 building that has been recognized for excellence in energy-saving design.



Awarded the Canadian Electrical Association's National Energy Efficiency prize as well as an Ontario Award of Distinction, the building demonstrates the direction glazing has taken.

Designed by the Webb Zerafa Menkes Housden partnership in conjunction with engineers The Mitchell partnership and Mulvey & Banani, the Canada Trust Centre's multiple energy saving features include a compartmentalized variable-volume space conditioning system, occupancy sensors, a gas-fired co-generator as well as PPG's energy efficient architectural glass.

An outer lite of Azurlite glass optimizes the ratio of high visible light transmittance and low total solar energy transmittance, according to PPG. The Sungate 100 low-E glass used for the inner lite also transmits sunlight, yet reduces ultra-violet and long-wave infrared radiation. Together in an insulating glass unit, these products provide the best ratio of visible light transmittance to shading coefficient, reducing interior lighting requirements and air-conditioning costs.**WC**

Solar Noise Protection

Switzerland has several miles of photovoltaic solar cells installed along highway noise protection walls in what is described as the first installation of its kind in the world.

The rationale is to make a public statement on the use of renewable energy. The sound walls are used as their base because they are available and relatively unobtrusive.

When complete, the system, mounted by Kyocera, will include some 8,800 modules, producing about 450,000 kwh annually. When fed into local power grids, the electricity produced by direct conversion of sunlight will fill the annual electric power needs of some 360 homes. The advantage of placing the cells on sound walls along main highways consists of easy installation, access and maintenance. The corrosion-proof cells will not be affected by inclement weather or road salt deposits in the winter months.

The direct current generated by the cells is converted into 3 phase alternative current fed into local grids via a medium voltage transformer.**WC**

21st Century Toronto

Toronto has built the world's largest network of shopping malls and tunnels beneath the skyscrapers of downtown, earning it a reputation as the only truly weatherproof city.

The CN Tower (1.815 feet) dominates the skyline for miles in any direction. It went up in the 1970s, transmits telecommunications signals, and has become the city's emblem, still controversial, much like the Eiffel Tower in Paris during its early years a century ago. The CN Tower looms over a dozen downtown office skyscrapers, hotels and the Skydome built in the 1980s for the Toronto Blue Jays who won Canada's first World Series championship last autumn.

The underground city below the surface of downtown Toronto has developed incrementally over the past 30 years. It absolutely dwarfs the underground complexes of other cities in North America and Japan. Underground Toronto extends for more than five miles in a network of passages and plazas linking shopping malls, high-rise office towers, major hotels, the leading concert hall, subway stations, railroad and bus terminals. In the course of any weekday, more than a hundred thousand people can be found somewhere inside it, window shopping, commuting to and from work, or patronizing some of the more than 1,100 stores, movies, restaurants and fast food outlets. The subsurface environment provides a climate-controlled refuge from the chill blasts of winter and the summer heat much as the skywalk network of Minneapolis, which is probably Toronto's closest rival in the weatherproof city department.

Above ground in the downtown, the Eaton Center combines center city energy with suburban retailing tactics. It is one of a very few North American shopping centers that works profitably in the city core. In recent years, Toronto has expanded not only up and down, but internationally with a culturally diverse population that now numbers tens of thousands ethnic Chinese, concentrated in four distinct 'Chinatowns', as well as Caribbeans, Latinos and Indians. Quite a transformation of a staid provincial capital, described earlier in the century as too British to be American, yet too American to be British. **WC**



Waste Treatment Park

A sewage treatment plant on the Hudson River in New York City has been crowned with the 'Riverbank State Park', a one million square foot recreational facility, bringing a full array of indoor and outdoor sports to be a deprived neighborhood.

Located in West Harlem, the 28 acres, $130 million park built under a state contract by the Tishman Construction Corporation of New York is already attracting an average of ten thousand visitors a day.

Only 11 such rooftop facilities exist in the world with ten of these being in Japan. The ten block long project in upper Manhattan uses new technology such as a thick layer of lightweight rigid foam to even out height differentials of up to 15 feet in the roof of the sewage treatment plant. The foam supports extensive landscaping and takes the place of soil which would have been too heavy for the roof to support.

Riverbank State Park, which opened earlier this year, is the first state park to open on Manhattan island, and it brings New York City, the most attractive outdoor recreational facility since Central Park.

The park includes a full size football/soccer field, a 440 yard track, a baseball diamond, a skating rink, an amphi-theatre for the performing arts, outdoor basketball, tennis and handball courts and an athletic centre for indoor sports. The pool complex includes outdoor and indoor Olympic-size swimming pools and an adjacent outdoor swimming and wading pool. All of the facilities are open to the public. **WC**

BUTYL: THE GOOD, THE BAD AND THE UGLY

Spacer companies are posed for a manufacturing showdown, and butyl products are the black-hatted cowboys - indicted on charges of holding hostage almost all their spacer-desiccant in a helpless, sticky grip, and for just plain falling down on the job in the noon-day sun.

In short, butyl kills unit performance, when corralled in an airspace, much of the time as a result of the one outstanding IG quality of material does have, that being its excellent gas retention and vapour-barrier properties.

"In fact, hot melt butyl is the backup sealant of choice for our own silicone-foam Super Spacer products," says Jim Kreiner, vice-president, research and development, with Edgetech's parent, Lauren International.

"Along with poly-isobutylene (PIB), they are the two best options available to IG manufacturers for assuring long-life, seal integrity."

"Unfortunately," says Kreiner, "we're now seeing butyl-derived material being used as desiccant-carrying, edge-seal spacers - products such as the Biver system from France's St. Gobain, and in the U.S., Tremco's Swiggle Strip/Seal and the Insul-Dri butyl desiccant used with the Intercept system."

"In terms of polymer science, this is just indefensible," says Kreiner, a veteran chemist from the tire industry, who holds four degrees including a Ph.D in polymer science from the University of Akron.

"In some important ways, IG units are very much like car tires," notes Kreiner, "In terms of gas retention, for example, the addition of a thin layer of butyl rubber allows a tire to hold its air much longer," he says. "Butyl was a big factor in the development of tubeless tires, so it's no wonder then, that, as a barrier sealant, it's been such a big boon to IG makers."

However, the exact same properties that make butyl such a good air and moisture sealant, make it a very poor desiccant matrix, says Kreiner. When it comes to actually seeing the difference, an electron microscope and 1,000 fold enlargement of Tremco's Swiggle Strip (top picture) clearly shows butyl smothering the molecular sieve. The small white specks highlight how little active desiccant there really is in the product.

By contrast, in the silicone-foam enlargement (bottom picture) large, white desiccant crystals are clearly visible as are the dark passages in the foam that allow moisture vapour to quickly penetrate into the spacer voids.

"Permeable silicone foam is a very desiccant friendly," adds Kreiner, making it ideal for IG spacer use. And this starts paying off from the moment an IG unit is built, he says, because "Even on the coldest winter days, Super Spacer units can be shipped immediately, without any concern of low-e condensation, while butyl-spacer units have to be stored some time before shipping."

Certainly, such evaluations didn't slip the attention of Edgetech's silicone manufacturer, Dow Corning STI, who recently bestowed a Creative Excellent Award on the company for successfully commercializing the silicone spacer idea. (See Edgetech newsletter Summer 1993).

Back on butyl, though, "Its role as spacer mass is a performance nightmare come true," says Edgetech technical director, Michael Glover. "It's soft and tar-like when hot, and hard and rigid when cold. Just how far away can structural failure really be," he asks?

"Field reports say butyl spacers don't stand up under heat in sloped glazing applications," states Glover. "And in the noon day sun, you can forget it."

"Butyl products have a long and sorry history of bubbling and blistering, especially in south and west facing high performance windows," he says, "and they've also been known to delaminate and sag in spacer designs, where butyl is applied to metal spacers."

"Silicone foam Super Spacer, on the other hand, can take any amount of heat you want to throw at," he points out, "It'll never bubble or blister."

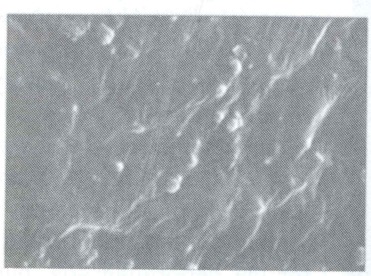
As a thermoplastic material, "Butyl exhibits cold flow properties with the resulting problems of cold creep and spacer bar migration," explains Glover. "Another IG disaster just waiting to happen."

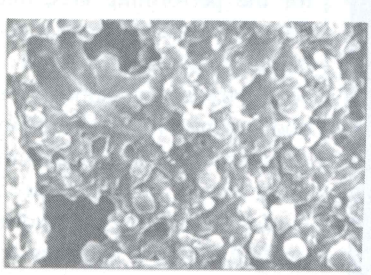
"That's why, when we employ butyl, we do so in a reverse dual seal design. Our pre-applied adhesive, plus Super Spacer itself, form the structural sealant, and then we gun butyl around the outer edge, just where such an excellent barrier seal should logically be."

Hidden from sight, butyl sealants are protected from heat build-up and UV degradation, and in combination with a structural foam spacer, there are no cold-flow concerns. Just as important, Glover adds, "Flexible foam spacers minimize butyl-seal stresses, that can cause adhesive loss at extremely cold temperatures."

While some polymer science can show up butyl's good and bad points, says Glover, only its appearance in the airspace of a brand new window can truly show off its unsightliness.

"It's just plain ugly, and considering how much effort manufactures put into making their windows and doors aesthetically pleasing, these days, it's not too surprising that many are now beginning to wonder, just how the window-buying public will feel about an ugly, bumpy spacer - only available in black."**WC**





Electron microscopic enlargements of a butyl spacer (above) and a silicone foam spacer (below)

SkyCab

A Swedish concept for a wholly automated lightweight personal rapid transit (PRT) system has gained the support of a national public-private consortium and has attracted international interest. Called SkyCab, the projected system would go a long way towards solving the congestion and pollution problems of the metropolitan area.

SkyCab would consist of computer-guided cabins running on elevated tracks in a spider web network. With a personal smart card the user could program the vehicle to travel to a predetermined location on the network without intermediate stops, according to the project team which includes inventory Stig Aby, management consultant Ake Aredal and systems specialist Jan Carlenstahl.

SkyCab has the support of NUTEK, the National Swedish Board for Industrial and Technical Development, Sweden's leading bridling contractor Skansa, machine tool manufacturer Haegglunds, IBM Sweden and Austria's Swoboda chassis manufacturer. It has acquired the status of a high technology project within EUREKA, the European Community's new systems research program.

Running on a closed track, the handicapped-friendly SkyCab cabins would seat a maximum of four passengers along with their suitcases, and even a bike. The ride is always individual and there is no risk of being brought anywhere else than to the predetermined destination. Computers would monitor the entire system, prevent backups and allow users to order SkyCabs using their coded magnetic smart card. User fees would be paid by automatic bank transfers once a month.

A single journey with a SkyCab would cost the equivalent of $1.35 in a system studied for the Gothenburg suburb of Vaestra Froelunda. Total costs are estimated at the equivalent of $171 million. A similar system projected for Gaevle, north of Stockholm, would cost $340 million and encompass 75 miles of closed track and 1,350 cabins. SkyCab will be presented at the EUREKA Exhibition in Paris June 23 to September 23, under the heading "A new concept for future personalized city transport."**WC**

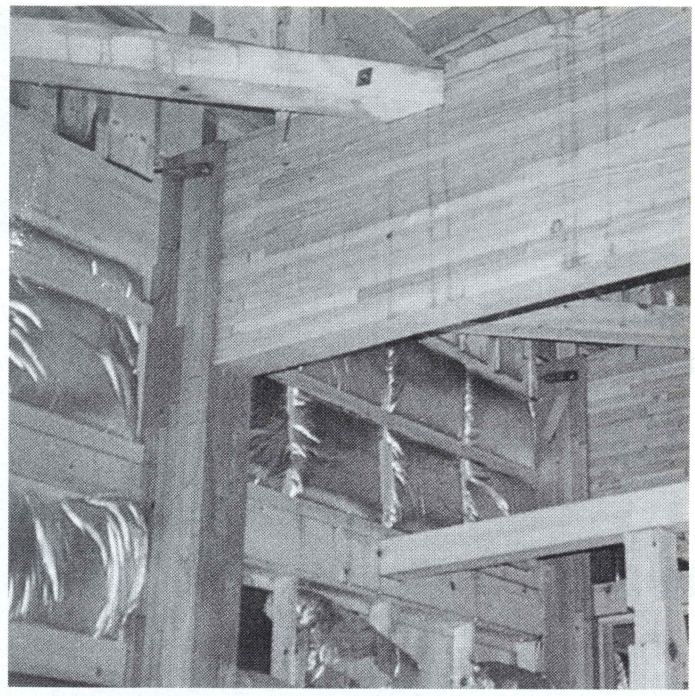
Traffic Tile

Quil Stone products manufactures a unique, durable tile. It is freeze and thaw proof. The tile has excellent colour range and the shading runs throughout the body of the tile.

The flexibility and variance in colour choices, choice of shapes and sizes, choice of textures, durability, ease of maintenance are amongst the excellent qualities which makes this product a highly desirable tile that can be cleaned with soap and water.

This recycled tile is comprised of 55% post-industrial, 18% post-consumer recycled glass and 27% clays, stains and pigments. There are no toxic materials or processes used and the tile is fired at low temperatures to reduce energy consumption. There are no waste materials and the product itself is recyclable.**WC**

Quil Stone Products, 25 West Beaver Creek Rd., Unit 11, Richmond Hill, ON L4B 1X2; Phone: (905) 731-3400.



Northern Technology Goes South

Well-insulated, airtight housing has been achieved in Hokkaido. The Hokkaido Industrial Development Laboratory (Hokkaishi) of MITI's Agency of Industrial Science and Technology will offer such northern houses to four ASEAN (Association of Southeast Asian Nations) countries and engage in joint research with other organizations in Japan and abroad in order to supply energy-saving housing suitable for the area.

Under this plan, research institutes and universities from four countries-Thailand, Malaysia, Singapore, and Indonesia -will participate in the research. From japan, private companies will cooperate with the Sapporo-based Hokkaishi and the Mechanical Engineering Institute of Tsukuba, Ibaraki.

According to the Hokkaishi spokesperson, a construction company in Sapporo has recently sold well-insulated houses in Kyushu, and these houses have proved to be comfortable in summer and very energy efficient. Accordingly, if this plan is realized, northern houses which retain internal heat can also be used to improve the efficiency of air-conditioning in southern countries.

According to the Hokkaishi's research, houses in the ASEAN countries are made with concrete with only 2-3 reinforcing rods and 10cm x 10cm pillars. Walls are built with bricks, corrugated slates are used for roofing, and there is hardly any insulation.

A five-year research plan will begin soon. The houses will be designed to utilize local resources and materials and with the weather conditions taken into consideration. The various parties will each be in charge of their own special field, such as methods for building well-insulated and airtight houses, production of insulating material, and development of air-conditioning and dehumidification systems.**WC**

feature

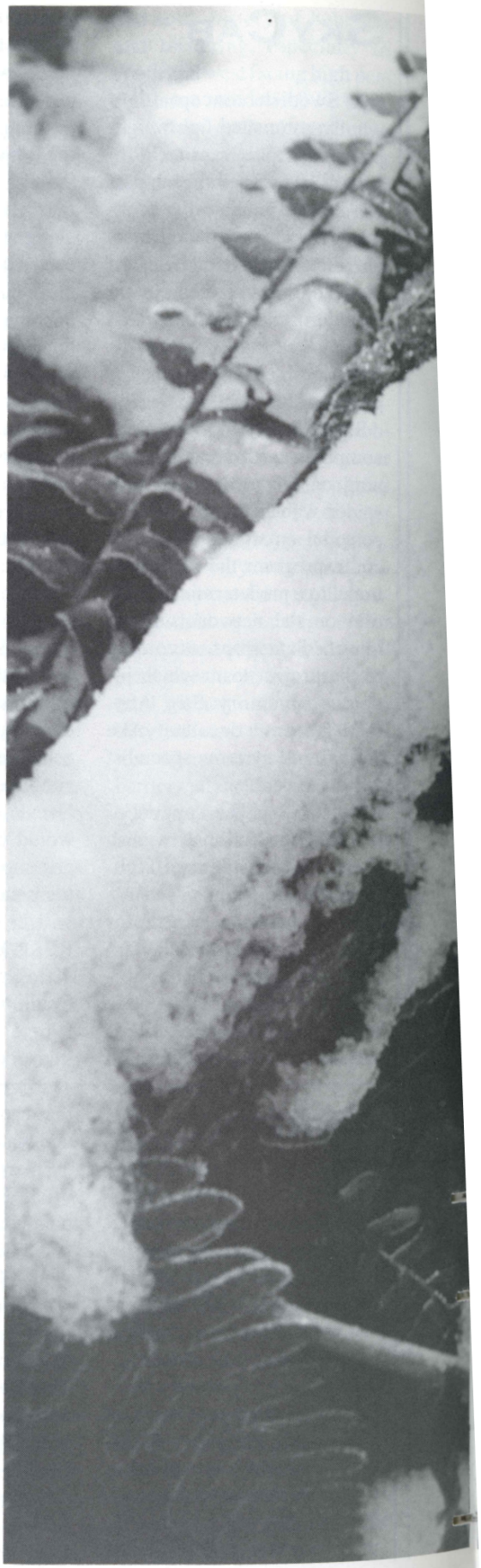
Winter City GROWTH

Go big or go home

Historically, progress has essentially been defined by growth.

But is upwards and outwards the direction winter cities should be headed?

And if it isn't how do we learn to think small?





Winter City GROWTH

Over Developed

Managing Winter City Growth

Harold Hanen and Greg Liburd

"Inch by inch, row by row. I'm going to make this garden grow."

Naturally growth is a part of change and the organic growth/decay cycle is a homeostatic system. However, from the earliest attempts at a cabbage patch to the latest plans for the next Mall of America, humanity has always tried to control change putting a blind faith in the benefits of growth. The compulsion to grow has become one of the cornerstones on which we define modern civilization.

Society builds boxes; to live in, to drive in, to die in. The more we make, the more we need and each one has to be better, stronger and bigger than the last. With all these boxes a Pandora situation is inevitable and there comes a time to look around and rethink fundamental attitudes as they affect the north.

There still exists a strong, but misguided perception of growth being a panacea for all of society's ills. This attitude is an extension of Adam Smith's premise that the pursuit of individual goals should be held above all. As a result, short term selfishness has been sanctified as an agent of progress and everyone is so busy trying to build the castles of their dreams that they don't notice that the collective foundation is about to buckle.

These concepts of greed and "progress" are finally being questioned. Their recent agents and icons, the politicians now wince under an unyielding spotlight, lawyers are the butt of countless jokes and corporate tyrants are the villains in Saturday morning cartoons. Society's mantra is slowly shifting from "me" to "us". Generation X, with their irreverent take on the manipulative media, value leaching politic and vacuous professional posturing, may well stimulate the search for innovative, sustainable and meaningful expressions of quality living.

It is a given that the current overall approach to winter city management, let alone growth, is lacking. The multi-seasonal needs of people and place are, more often than not, left uncovered by the blanket application of southern 'solutions'. There is a serious disjunction between winter city ideals and actions, resulting in a crisis of vision towards future growth. The Bratsk conference in February 1995 will focus on the question, "What will you say when your children and grandchildren ask what you did to conserve our great northern regions." *Winter Cities* has often addressed specific remedies in an attempt to support a paradigm shift in perception. The most lasting contribution of the Winter City Movement is the change in consciousness it has and will continue to produce. In the northern world a "top down" approach is never successful as from the grass roots up.

To complicate the picture, the northern world is in the process of facing unparalleled expansion. Increased migration, land claim settlements, ceaseless resource extraction and massive development are forcing us to deal with growth in a hurry.

How do we deal with challenging age old traditions of growth for growth's sake within the context of the northern world with its climatic problems and mammoth expansion? We look to those who have done it right.

Scandinavia: People of Season

The Scandinavian society accepts winter as an integral part of life (and conversely have the most elaborately developed Summer Solstice celebration). The recent Winter Olympics in Norway showcased a people who celebrate their seasonality. Unlike



North Americans, the Scandinavians regard themselves as incarnations of their ancestors. Traditional indigenous customs and clothing are proudly displayed. This creates an attitude of accepting winter and embracing the role it plays in culture.

Norrbotten County represents 14 Swedish cities that approach winter growth in a collective, serious fashion. Integrated development, cold climate research and resource conservation are all taken into account when growth is considered. A reverent view of history insures that the old is not eliminated for the sake of the new. Since the culture does not detach itself from winter and deals with it as a part of living, the same hold true for industry and government.

Japan: Culture of Business

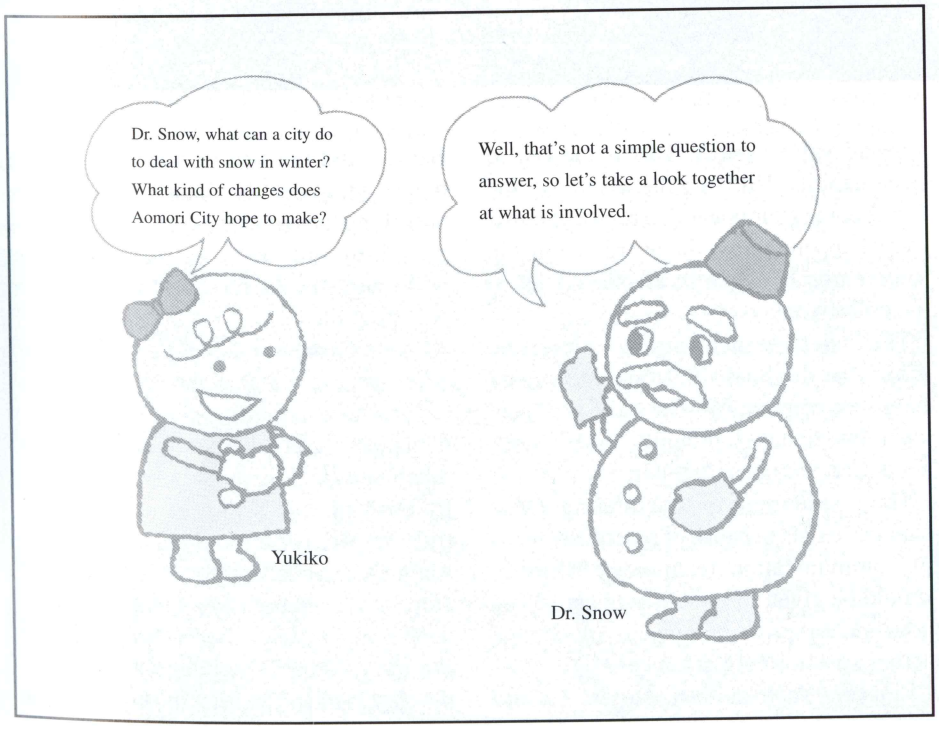
The Japanese have traditionally had a very strong attachment to their culture. Whereas many Western societies are a non-descript amalgamation of ethnic groups, the Japanese have a collective mindset. This guides the way they do business, interact socially, in short, they way they live. Since their culture contains a strong attachment to the environment, their approach to growth reflects it. The attention given to development is, more often then not, serious, sensitive and effective.

The city of Aomori has taken an approach to make winter city awareness and growth accessible to the entire population. The examples from a public service brochure show the importance that the municipality places on education its population. Concepts of winter city design leave the realm of theory and become practical. Citizens of all ages are informed and understand how their city is evolving. This leads to understanding, appreciation and creating strong collective standards for growth.

This mindset is similar in other northern Japanese cities such as Sapporo, Takikawa, Chitose, and Hokkaido. These locations have led the way in winter city management, development and marketing because cultural collective logic allows for it.

KST Natural Housing is an example of a Japanese company which integrates the ideals of society into creating efficient, affordable winter housing. They take an innovative approach to materials, construction and labour management. Waste wood is used in the building process, traditional wisdom is implemented using modern techniques and the entire process is geared to run year round. Bioregionalism is one of the keywords of their operation. The company is also strong enough in its vision to incorporate and improve upon ideas from other societies, like the use of Russian petchka passive radiant heating.

KST is just as concerned with what they do as how they do it. They have a strong philosophical platform which is based upon Philosophy, Wisdom, Heart, Consideration and 4 Generations. In addition they believe that, "The key to creating an industry that solves the problems associated with winter requires a willingness to conduct research and development on both tangible and intangible issues centered around winter." All of this represents a successful transfer of cultural wisdom to a growth oriented business.



The Future: Collective Inspirational Influence

Japan and Scandinavia both have a homogeneous culture that respect local differences and realities and this translates into their success with winter city development issues. Western cold climate regions generally lack a collective framework to address these challenges. As a result a tendency to pull ideas from historical southern biases instead of using in situ sociocultural logic that has served to insure survival in multi-seasonal regions through the ages. However, there exists an indigenous culture in North America which is intrinsically and traditionally related to the land and its seasons. The First Peoples millennia of multi seasonal experience is a resource that must be utilized.

At present there is an 'us and them' view of natives and rather than seeing them as brothers integral to our past, present and future, we see them as separate. Until recently, treatment of First Peoples by western society has been atrocious. Only now, through initiatives such as Nunavut (a self governed native province in northern Canada), are we recognizing the current and potential political and business significance of this population sector.

Given the melting pot nature of relatively new western countries, it would take centuries for a strong collective identity to emerge. Cold climate regions are the First Peoples Rome and we should learn to do as they do. Cross cultural acceptance of tradi-



tional native means would improve the overall approach to cold climate existence and growth.

The ideal western educational curriculum would include bioregionalism within the context of the First Peoples. A systematic process for introducing cold climate culture to insure that the parameters and significance of rigorous multi-seasonal regional responses would change the mindset of students and recent immigrants.

Accepting the reasoning of the native peoples and integrating it into our system would insure that sensitivity to northern issues is inherent instead of an afterthought.

There are several components that are necessary to affect these changes in winter city mindset. First and foremost is to have a sound value system. This is the key to sustainability. Utilizing the wisdom of the First People guarantees that regional sensitivity happens across the board, not just in select cases. It also shifts emphasis back to the collective.

The Inuit have such a strong cooperative sense that the lines of family encompass the entire community. The more we value and relate to our community, the more we act directly to make it better.

The foundation for facilitating these changes exists because of recent advances in communication technology. Priority should be given to establishing electronic networks to spread indigenous knowledge across vast northern distances.

Pioneers such as Jack Royle, Leonid Barkov and the late Mayor Itagaki have done a great deal to change attitudes. By absorbing the cultural psyche of First Peoples into our own we can thrive as northerners in the most natural, effective way possible.

Consciousness raising gets reinforced when people see that the ideas they are dealing with are also being discussed by the larger society. The onus is on northern inhabitants to defy the southern status quo by thinking and acting in ways that are truly responsive to community and environmental needs. **WC**

Harold Hanen and Greg Liburd edit Winter Cities. A follow up to this article exploring the role of technology in winter city development will appear in the next issue.

Winter City GROWTH

The Sprawl Brawl

Debating the Pros and Cons of Massive Growth

Calgary Herald

Development versus sustainablity is an issue that will grow in significance as cities burst at the seams. The following newspaper excerpt (from the Calgary Herald) illustrates the standard biases and hurdles faced in attempting to facilitate sensitive growth. Keep in mind that winter city suitability is not even mentioned by either side

Calgary can't afford

to continue growing by sprawling, a city land use hearing was told this week.

Millions of people could fit into the space now occupied by just 730,000 Calgarians, said Ken Peach, a Bankview community association representative.

"Calgary suffers from an incredible sprawl and we can no longer afford it," he told a hearing sponsored by GoPlan.

City council formed GoPlan two years ago to develop a transportation and land-use strategy for the next century.

Transportation and land use are closely linked, Peach pointed out. If Calgary became a more compact city, it wouldn't face the high costs of constantly building more and more roads.

It also wouldn't have to extend water and sewer lines, or build as many schools and fire halls.

In a compact city, walking and bicycling become practical, public transit becomes more efficient, which means fewer people need to drive. At the same time, there's less pollution because fewer cars are being driven, and lower health costs because fewer people are being injured in car crashes, Peach said.

The city needs to encourage higher-density living and more mixed land use with, for example, people living in buildings that also house stores and offices. At the same time, car driving needs to be actively discouraged, said Peach.

But that isn't necessarily the kind of future most Calgarians want, said Non Nich, a city graphic artist. Nich said he relies on his car to quickly get around the city and enjoys the freedom it provide him.

"Calgarians don't like to ride the bus and they don't like to live close to each other," said Nich. Denying people the ability to drive their cars limits their freedom, he said.

Lawyer Bruce Halliday, a member of GoPlan's citizens committee, said there's great resistance to higher density, with communities repeatedly opposing plans for even modest infills. "Ask anyone trying to turn two lots into three. It can take many years of effort.

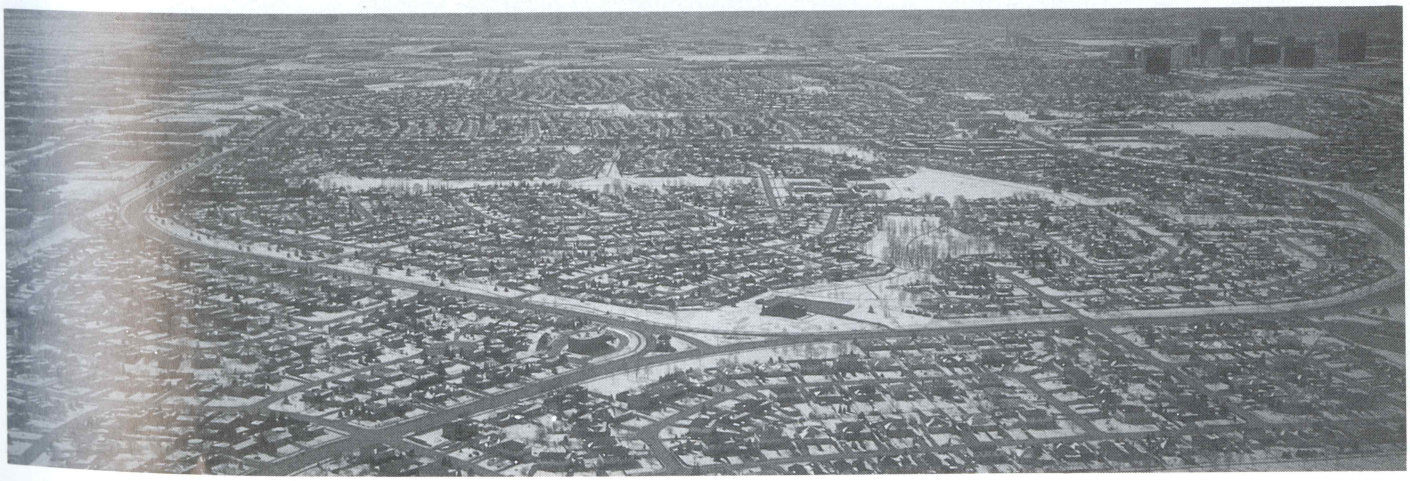
Pat Noble, from the Cliff Bungalow-Mission community association said the city needs to acknowledge that different areas need different kinds of services. "Don't waste money where transit can't compete," he said.

On the outer edges of the city, where density is low, cars will have to be used to get around. In the core, transit will make more sense.

Land around LRT stations and along transit routes should be used for high-density developments, said Noble.

Among other points raised at the meeting.

- Calgary shouldn't be designed around the needs of motorists, said investment manager Bill MacLachlan. He supported higher density housing and more emphasis on public transit. Fees should be imposed on motorists to get them out of their cars.
- While the car provides freedom, "in exercising that freedom you're imposing costs on other people," said Nigel Bankes, who works at the University of Calgary.
- Services need to be built closer to housing so people can walk or bicycle when they need to shop, said Don Hollingshead of the Elbow Valley Cycle Club. **WC**



Winter City GROWTH

Back to the Future

Historical Direction for Russian Development

Leonid Barkov

The Siberian city of Bratsk is being thoughtfully developed as a winter city. This is because of the direct influence of vice-mayor Leonid Barkov. His approach as the city's chief construction manager has been directly influenced by the Winter Cities Movement. The 1988 Trømso WCA conference started him down the path to recognizing multi-seasonal concerns and now he is implementing those ideas on a grand scale. The following article provides insight as to how history and culture can provide a context for sensitive winter city growth.

The thrusting open of Siberia began with comparatively recently, in the sixteenth century. Russian settlers brought with them to Siberia their folk traditions, which are firmly established in folk experience. Russian spiritual and physical tradition, running through both secular and Christian expressions of the culture - the Slavic outlook - created the basis for Siberian architecture. The great influence of the Siberian peoples, the great wealth of their cultures, the specific conditions of nature and climate, all combined to create the unique architecture of Siberia.

One of the basic characteristics of Siberian construction is the relationship between the architecture and the surrounding countryside. The settlement was more like a painting than a geometrically correct arrangement of construction. Domiciles and farm buildings were arranged on the farmstead in harmony with the true tendencies of nature, following the windings of a river, the banks of a lake, hills, and oriented towards the sun. They took into account even the unique visual aura of the settlement and its natural surroundings. The most advantageous aspects of the composition of the settlement in relation to its location were its churches and cathedrals, which formed the church squares and sacred centers of settlements.

By the nineteenth century there were three types of settlement arrangements in Siberia. Small villages and settlements in the country were built into "nests;" that is, either by isolated groupings of farmsteads or next to a river or lake. Large roadside settlements, which gradually grew into cities, were arranged according to streets or quarters, especially after the series of government orders from 1817 to 1838. And although large settlements were significant in number, their arrangement maintained their originality and quaintness by taking into consideration the changes of the composition of the axis, multiplicity of centers of the settlement, etc.

Of great significance in regards to the opening up of the territory, was the provision for optimum organization of the farmstead, protecting it from winds and snow, and the increase in heating effectiveness of the living area. This was possible by uniting all of the living and farm structures around a well protected courtyard. Peasant living areas within the boundary of the village alone took up one-third to one-half of a hectare, on which there were sheds, storage for grain, barns for livestock, underground ice vaults, which were all filled with tools, livestock, animal feed, provisions - as much was necessary for a comfortable life in the severe conditions of Siberia.

In contrast to the Russian north, where completely covered courts were widely used, including usually, as was the rule, a two-storey housing complex, in Siberia farmstead with open courtyards were popular, being built up around the perimeter of the property and often divided into two halves - the clean or front half of the courtyard with different sized sheds for carts, and livestock of far court with hayloft and cattle sheds for the livestock. In the severe winter on such farmsteads, the management of the household, the care of the livestock, required minimal time in the cold. But on the other hand, in the summer months the settlement seemed to open itself toe the warmth and sunshine, extending out to the expanse of pastureland for the livestock, extending in all directions from the residence form the Siberian ploughed field.

The functional design solutions of the various parts of the farmstead complex worked out by many generations, were responded to with the most rational and well-founded organization of the life of the local population. Aspiring to achieve the maximum hating effectiveness of the living quarters in the severe climate led to the use of heating zones, that is, the formation of a unique heating shell around the basic heating area of the building. The traditional wooden house consisted of three parts: the cabins, the store rooms, and the enclosed porch. The cabin was intended to be a winter residence; the store rooms housed belongings and also served as a summer residence; the enclosed porch served to connect the cabin steps, the attic, and the pantry, and was built directly onto the structure of the house while, at the same time, providing a warm landing. The Russian stove, with its massive heating capacity, was put in the middle of the residential quarters, protecting the warmth in half the house. The sleeping places during the winter were located in the warmest parts of the cabin or else arrangements were made to heat the area during the day.

Around the compact warm area in the center of the building near the source of heat were areas less demanding of heat. Here the Siberian architecture made another layer out from the central heated area, which helped the people survive the severe

climate. The purpose of this design was to counteract the hazards of blizzards by keeping protrusions and sinking parts of the building to a minimum, the steep incline on the roof, thus decreasing the possibility of snow depositing on the windless side of the building. This and the minimal quantity and area of window and door apertures, the original system of ventilation of the area through special openings under the ceilings, the stovepipe with two or three bends in the smoke channel for repeated circulation of warm air, the double layer construction of the floors with an air space between the layers, and many other features, noticeable lowered the loss of heat.

But how beautiful were the Siberian huts! Their austere silhouette, strong logs, ornamentation around the window frames, the shutters. A worthy residence for worthy people. To see these things now, however, you have to go to a museum such as the fascinating outdoor museum, Angarskoye Village in Bratsk.

Unfortunately, the mass migration to Siberia by the residents of European Russia and the resultant industrialization of the 20's and 30's brought a wild growth in the population and especially the cities of Siberia, and swept away the Siberian architectural tradition, which had already solved many problems posed by the severeness of nature. As a result, many Siberian cities noticeably lost their uniqueness and, in a few cases, such as with old Bratsk, almost nothing remains of the former building traditions.

Speaking about new Bratsk, Dr. Boris N. Olgi commented on the "excessive austerity of the arrangements, which almost ignore the picture-like, natural conditions of the area...(the standard) method of designs in combination with the wide use in the country of standardized projects has deprived construction of its individuality and, in many ways, it has decreased he impression of the uniqueness of the city..." European methods of city planning on Siberian soil have just begun to change and adapt itself again to the local conditions.

The beginnings, finally, of re-evaluating how we should approach country estate construction is now standing us in good service. Many Siberian cities are going outside of their former borders, and growing with the region and the individual, to construct modern private housing developments. A generous attitude to provide private business undertakings is stimulating the emergence of construction companies, which are not burdening us with more of the stereotypical standardized projects of recent decades, but rather are seeking new means of construction, new types of homes. But new in this case is the long forgotten old. What could be better than your own home on your own land? It's a dream of three generations of Russians and is becoming a reality today. Come see for yourself.**WC**

The author is vice-mayor of Bratsk, Russia, host of Forum '95.



Bratsk has the tradition and resources to make its development work

Bern's Urban Form

A Model for Winter City Design

Norman Pressman

The micro-climate is normally a factor that is unique to each and every development site. Human settlements in the north have usually attempted to "wall out" inhospitable surroundings, wherever possible through transforming harsh outdoor climate into comfortable indoor environment. Achieving suitable micro-climate conditions - especially on the site around and between buildings - will undoubtedly enhance the quality of thermal comfort. Therefore, performance standards which protect users from increased wind speeds induced by the design and positioning of buildings should be formulated. They should be combined with measures to guarantee daylighting requirements, proper air circulation, and access to sunlight through the configuration of built form, as well as protection from rain, snow and ice.

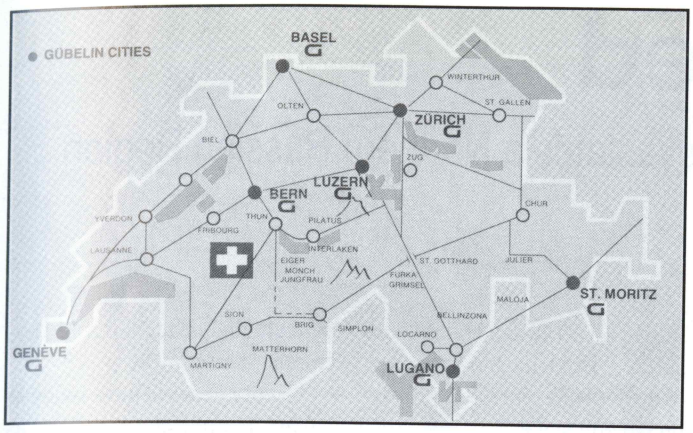
Although major cities in Switzerland generally do not quality for the term 'winter cities' (since their locations are normally at lake level, with minimal snowfall and only brief periods of uncomfortably cold temperatures), many, nevertheless, exhibit characteristics which cities, in more severe settings, would do well to analyze - and perhaps even emulate. Adopting a typically 'European' perspective, emphasizing street-level activity and public space, tend to discourage grade-separated design interventions which might discourage or siphon away functions from the street, thereby draining it of animation (and diminishing perceived safety).

Bern's weather-protection is exemplary in terms of concept, design and execution

However, some Swiss cities, notably Zurich, Geneva, Lucerne< and Bern have employed underground movement systems for pedestrians in specific locations such as those connecting the main-line railway stations to major pedestrian thoroughfares beneath the railway station "squares" around which heavy motorized traffic exists. An example is the Shopville-Bahnhof passage linking Zurich's Hauptbahnhof with the Bahnhofstrasse "transit-mall" (for pedestrians, tramways, taxis and emergency vehicles). In Bern there is also a below-grade shopping centre connecting the busy railway station beneath the Bahnhofplatz to the Neuengasse.

Bern is a particularly noteworthy example of climate-protection from wind, rain and snow. The "Lauben" or linear arcades/colonnades which run the entire length of this ancient city's major streets (raised slightly above the roadway) are integrated with the extremely well preserved 17th and 18th century houses under which they are incorporated (the city having been founded in 1191). Within this network of "arcaded" streets accommodating pedestrians and cars alike, mid-block, covered cross-connections and open-air narrow lanes and alleys link the arcades of parallel streets within the old town. Newer "passages" were skilfully built within the older network. Many are heated with infra-red lamps during winter creating desirable micro-climatic conditions both in the mid-block connections and within the arcades themselves. Year-round use for cafes, snack bars, and even vendors' stalls is possible, and exists to a large degree.

If one were to adopt, as an index of pedestrian comfort, the ratio between the total length of protected pedestrian ways and the number of inhabitants, then Bern (having roughly 8 Kms. of weather-protected walkways) with some 300,000 regional population. The City of Calgary, Alberta, with the largest +15 skywalk system in the world, and its 600,000 popu-



lation supports 10 kms. of protected aerial walkways, or 1 km per 60,000 inhabitants.

If only the actual "urban" population of Bern were used (135,000), then the ratio of protected ways would increase to 1 km./16,875 persons probably making it the most completely climate-protected system anywhere in the world - certainly unsurpassed anywhere in extent or importance north of the Alps. The "Lauben" of Bern are a living testimony of how arcades can play a truly significant role in the organization of town form and the use of urban space.

The design principles embodied in the arcades of Bern - and in other Swiss Zahringer new towns such as Murten, Thun, and Fribourg - in its old town, are superb examples of how old ideas can, in the present era, structure daily life and have retail behaviour adjust to an historically imposed urban form. Bern is dynamic and full of vitality while offering diverse activities. It continues to maintain a pedestrian-oriented, vehicular-accessible shopping area and generally has an exemplary mix of uses, including basement cellars for small theaters.

Its "old town" has been classified as a 'world cultural landmark' and is protected under a UNESCO conversation order. The centre has direct access to the centrally located railway station and, as well, makes provision for huge underground parking garages with electronic panels displaying information about how many available spaces exist in the city's various parking areas. Bicycles are used extensively too.

Although historic examples cannot readily provide instant solutions to contemporary dilemmas, they can offer guidelines and valuable insights which will serve as a basis for new directions - even when these are little more than the modification of older, time-tested responses. The relationships between density, weather-protection, mixed-land use, the dense network of public transport, accommodation of the car, compactness and climate-protected pedestrian movement systems, can all be witnessed in Bern's urban form. This city performs well - within its centuries old container - even when evaluated by the most modern performance standards. Most importantly, it still serves as a potent prototype for inner-city redevelopment plans and proposals, although some concern has been expressed that residential functions are being displaced by retail, office and institutional uses.

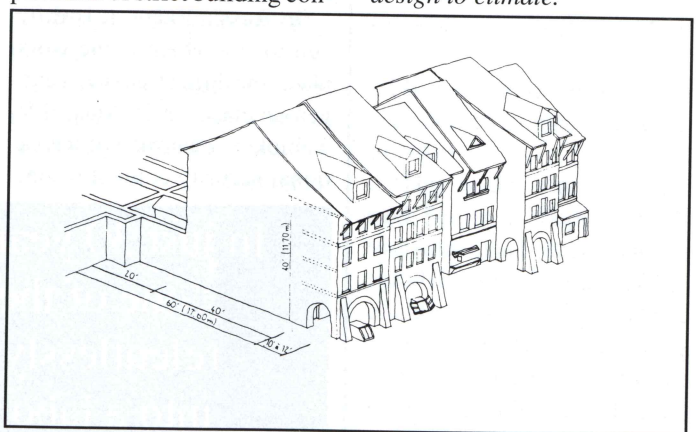
Modern planners, engineers and urban designers would be well advised to analyze this exemplary case-study. There are probably more lessons to be learned here than from many "post-modern" approaches to creating humanized public space. The "internal-external" urbanism has been produced without resorting to vertical separation such as serial skywalks or underground systems which often tend to compete with safe, animated street level urban life. Finally, all new buildings or renovations in Bern must conform, through the application of strict building controls, to the existing historic urban fabric.



Von Werdt Passage (Pressman)

Bern's urban form - especially in its city centre - illustrates precisely how the combination of arcades (parallel to the street system) and passages (perpendicular to the arcade direction) can be integrated with the city's network of public streets and squares to produce a high-quality environment for inhabitants and visitors alike. There was no need to introduce above-grade or below-grade paths which tend to compete with street level life. In the town's heart, people have been accorded priority over vehicles without resorting to vertical separation. Weather-protection is exemplary in terms of concept, design and execution (including architectural detailing). The city's movement network, including public spaces, has been meticulously (a typically Swiss attribute) woven into the urban tissue. It was never treated as a residual element to be dealt with "after development" had occurred. It constitutes an essential component of the urban form, is clearly connected to the town's important functions, and possesses symbolic qualities embodying a sharply defined identity and a powerful sense of place. **WC**

This article is excerpted from the author's forthcoming book - Northern Cityscape: linking design to climate.



Bern's arcaded form evolution (F. Divorne)

Nanoq

The Arctic Museum of Finland

Kristina Ahlnäs

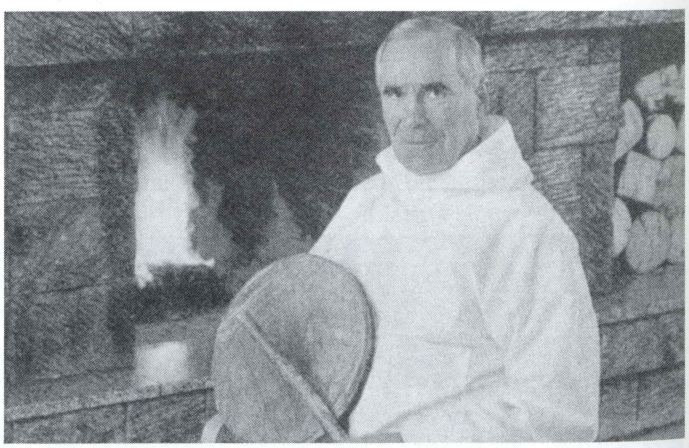
Pentti Kronqvist is the proud director of the only Arctic museum in Finland. The museum, Nanoq (meaning "polar bear") is unique both in style and origin. It is modelled after a 100-year-old peat house in the old hunting settlement of Erah on the coast of Smith Sound in Avanersuup Kommunia (the Thule District), North Greenland. During his expeditions to reach the North Pole, the American explorer Robert Peary stayed there in the beginning of the century. More recently, Kronqvist, himself, an Arctic explorer and fire chief from Finland, stayed there on some of his expeditions.

Spending time with the Polar Inuit of North Greenland, Kronqvist learned to value their friendliness, honesty, ingenuity and skill at making a living in one of the harshest environments on earth. He has spent enough time with the Inuit to become an authority. His best pictures are published in the book *Inuit, among the Polar Eskimos*.

Because of his admiration and respect for the Polar Inuit, Kronqvist wanted to share his experience with others. There is where the idea of a museum came from - a place where all the objects Kronqvist had collected could be displayed and viewed. But more than a collection of old objects, it was to be a living place where young people could be inspired to dream about accomplishing the impossible, through the examples of Inuit and the Arctic explorers.

Kronqvist had his dream of an Arctic museum but couldn't convince people with money that it was a worthwhile undertaking. He owned some land covered with pine forest outside Jakobstad/Pietarsaari on the Finnish side of the Gulf of Bothnia. There he had, as a young man, started to build small, traditional cabins from salvaged timbers. He called his small village the Bear's Den. Here was a good place for the Arctic museum, next to a steep cliff that would make a suitable natural wall.

In 1988 Kronqvist formed the Nanoq organization to build the museum. Concrete blocks and other building materials were donated, but there was still not enough money for construction. That did not stop Pentti Kronqvist, accustomed to beating his way across the Arctic. He shared his dream to build a modern museum that would look like an old peat house on the outside. Fifty friends and neighbours volunteered to fill their spare time by assisting with the construction of the museum. At the end of 1988 the roof was up on the two-storey building. The Arctic



Pentti Kronqvist, museum Director

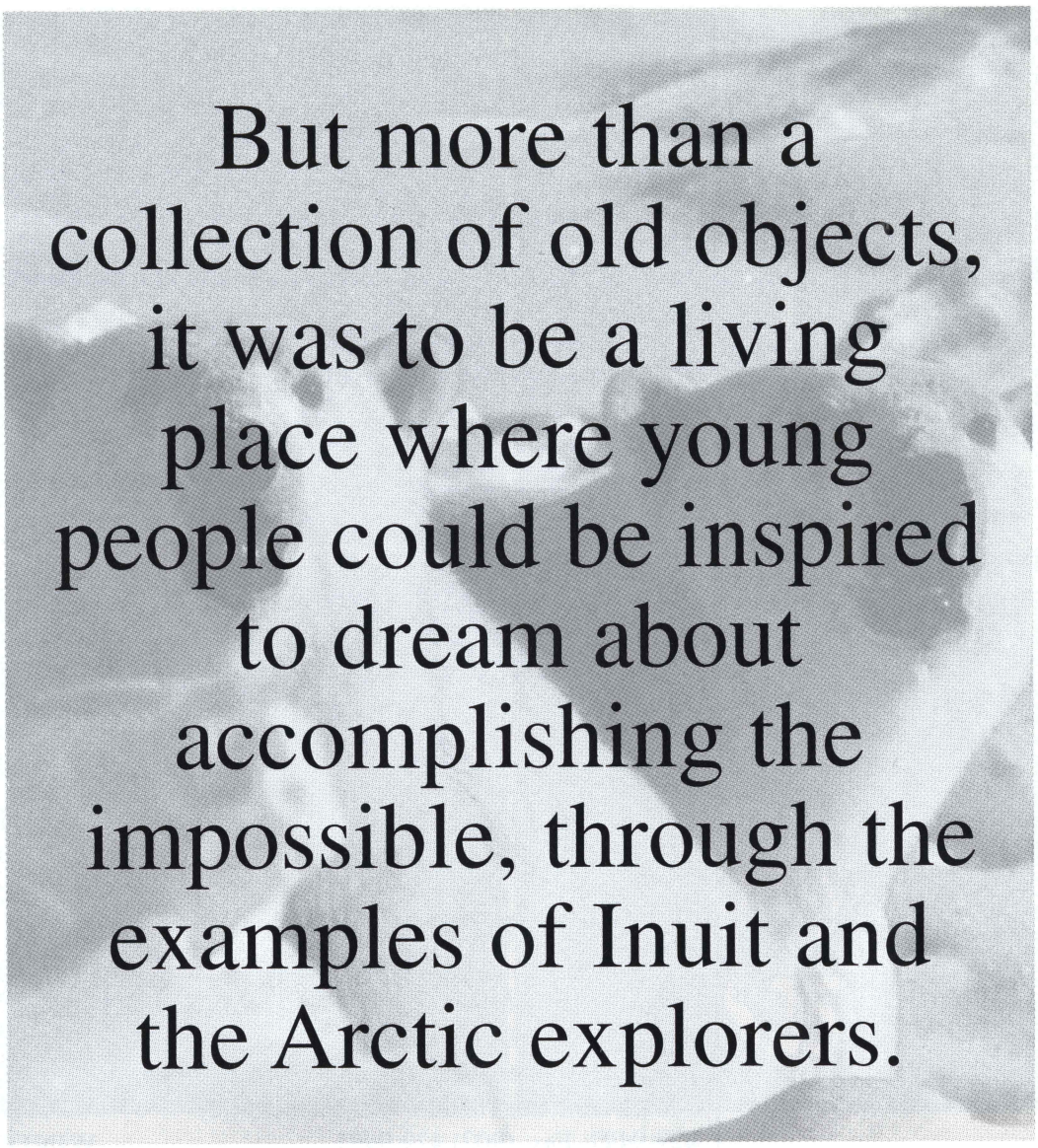
collections of the British Museum in London provided guidelines for the inside displays.

To create immediate cash to help construction, an old-fashioned smoke sauna with room for 20 was added to the Bear's Den.

Nanoq, the Arctic Museum, formally opened its doors in the summer of 1991. When I visited a year later, most of the building was covered with peat, except for some small, low windows under the edge of the roof. The Arctic Museum blends into the scenery of the pine forest and in the summer looks like a green hill with moss and lingonberries growing over it. Like its model in Greenland, it will change with the seasons and take on a white coat when winter comes.

Inside, schoolchildren and others have an opportunity to learn how people can live under Arctic conditions. Many Arctic cultures, such as the Scandinavian Lapp or Saami, are represented in addition to Inuit. The collections include Arctic hunting equipment from the 17th century to the present as well as Canadian Inuit soapstone carvings and other northern art objects. The museum library holds a wide collection of Arctic literature and over 100 films of Arctic expeditions.

Relics from Arctic exploration from 1773 to the present are also an important part of the collections. Horatio Nelson, who later became Lord Nelson, participated in the 1773 expedition organized by the British Geographical Expedition to explore the possibility of reaching Indua by way of the North Pole. Nelson, then 15 years old, participated as a volunteer cadet (midshipman) under Commander Phipps in charge of the ships Racehorse and Carcass. The ships reached latitude 80N between Spitsbergen and Greenland and discovered that the pack ice was continuous to the north. Some of the crew died of scurvy and were buried on Lagoya, Svalbard. Phipp's depot was found in 1980 by the Swedish Ymer Expedition, led by glaciologist Valter Schytt. A.E. Nordenskiold, who discovered the Northeast Passage in 1878-79, is remembered by a candlestick from his ship, the Vega. Letters from the famous Norwegian explorer Fridtjof Nansen, who froze his ship, the Fram, into the Arctic pack ice off of Siberia from 1893 to 1896, are on display.



In 1981 Pentti Kronqvist led a Finnish-Norwegian expedition across Greenland in Nansen's 98 year-old ski tracks. Although they did it the old-fashioned way, without the benefit of air-dropped supplies and dogs, it took them only 26 days. Some of the equipment used by Kronqvist on the trip is on display, including the sled he pulled across Greenland on skis.

Kronqvist is an authority on item in his museum and describes them knowledgeably, with vivid sketches of the people involved. With Kronqvist as a guide, a visit to the museum becomes both educational and entertaining. To date visitors have averaged 13,000 people a year.

Nanoq hosts special exhibits and programs with an Arctic theme. An exhibit about Arctic housing will be displayed 15 July to 15 September, 1994. Some Polar Inuit from Siorapaluk and Siberian Nenets from Yamal will be present. Currently, rental of the smoke sauna brings in more cash than the museum. In the future, Kronqvist envisions Nanoq hosting small seminars. There are limited rustic living quarters in the Bear's Den. **WC**

The author is staff at the Geophysical Institute at the University of Alaska

calendar

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AUGUST 25-27 1994
VLADIVOSTOK, RUSSIA
AUGUST 29 - SEPTEMBER 2 1994
Contact: Conferences & Special Events, 117 Eielson Bldg., P.O. Box 757800, Fairbanks, AK 99775-7800; Phone: (907) 474-7800; Fax: (907) 474-5592

1994 INTERNATIONAL CONFERENCE ON ARCTIC MARGINS
MAGADAN, RUSSIA
SEPTEMBER 5-9 1994
Contact: ICAM 94, Geophysical Institute, University of Alaska-Fairbanks, Fairbanks, AK 99775-0800.

HABITAT 94
EDMONTON, ALBERTA
SEPTEMBER 18-23 1994
Contact: Bruce Duncan, Congress Chair, Habitat '94, 10310-102 Ave., Edmonton, AB, T5J 2X6; Ph/Fax: (403) 421-1994.

COSTAL ZONE CANADA '94
HALIFAX, NOVA SCOTIA
SEPTEMBER 20-23 1994
Contact: CZC '94 Conference Secretariat, Bedford Institute of Oceanography, P.O. Box 1006, Dartmouth, NS B2Y 4A2; Phone: (902) 429-9497; Fax: (902) 429-9491.

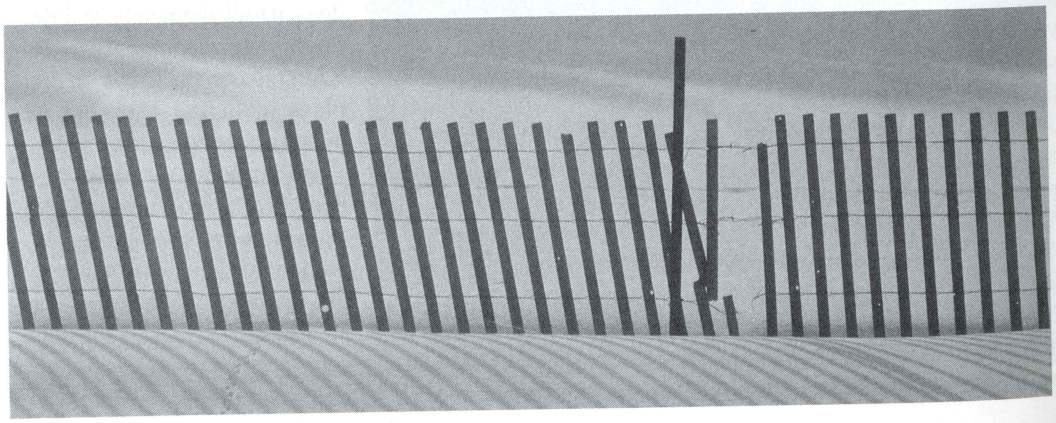
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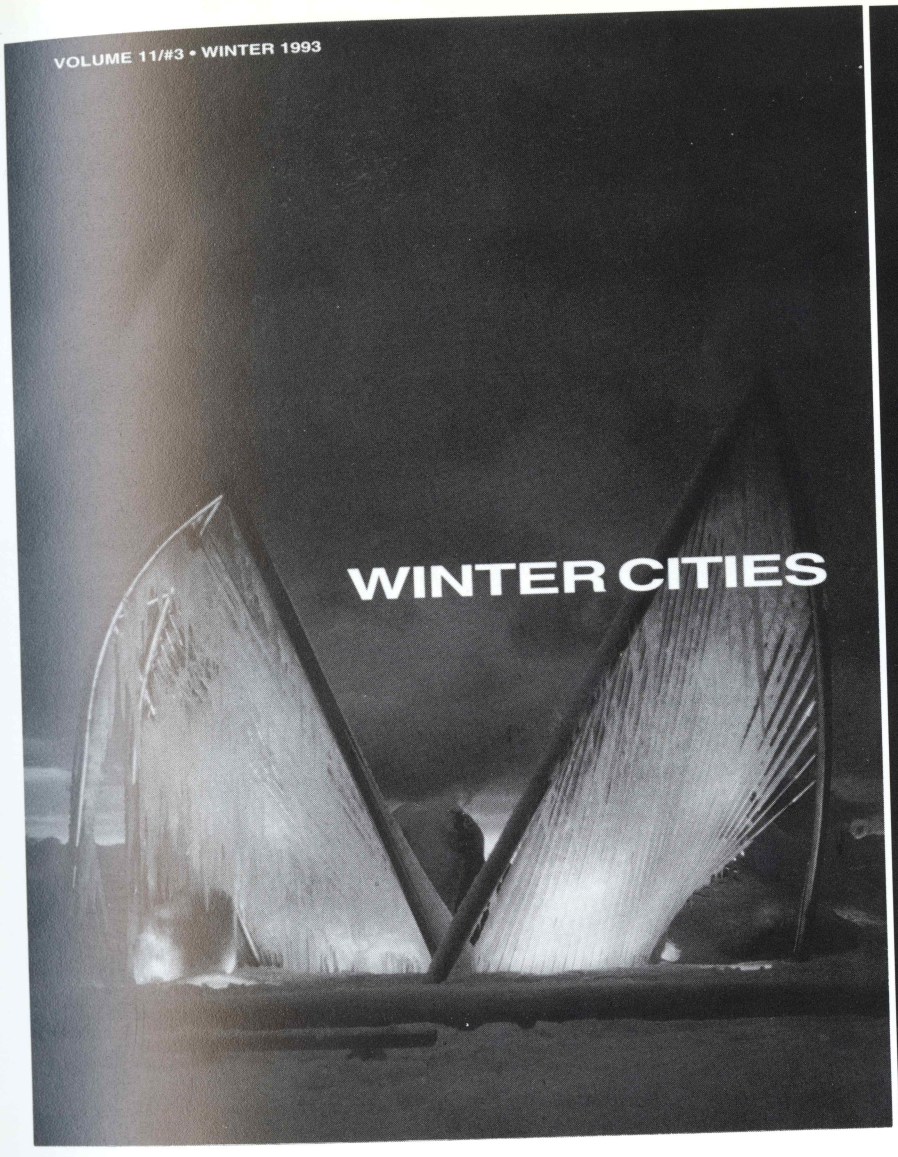
PROJECT MANAGEMENT INSTITUTE CONFERENCE
VANCOUVER, BC
OCTOBER 17-19 1994
Contact:PMI '94, C/O Standwell Inc., 1190 Hornby St., Vancouver, BC V6Z 2H6; Phone: (604) 684-9311; Fax: (604) 688-5913.

QUALITY MANAGEMENT IN URBAN TOURISM: BALANCING BUSINESS AND ENVIRONMENT
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Contact: Doug Clute, 85 Drake St., Saulte Ste, Marie, ON, P6A 5A8 Ph (705) 946-0552; Fax: (705) 945-5942.

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