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WINTER CITY
ASSOCIATION



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NEWSLETTER

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A CALL FOR WINTER-IMPROVING SCHEMES AND IDEAS

INNOVATORS WILL HAVE OPPORTUNITY TO DISPLAY THEIR IDEAS AT EDMONTON FORUM

ALONG WITH PRESENTATIONS BY WORLD-CLASS EXPERTS, "WINTER CITIES '86 INTERNATIONAL FORUM" TO BE HELD IN EDMONTON CONVENTION CENTRE, FEB. 15 TO 19, 1986 WILL GIVE OPPORTUNITY TO INVENTIVE GENERALISTS OR ANYONE WITH NEW, DIFFERENT OR WORTHWHILE IDEAS TO DISPLAY SUCH SCHEMES. IN CONCURRENT SHOW-AND-TELL SESSIONS, FIRMS, INDIVIDUALS, PROFESSIONALS, GROUPS, EVEN COMMUNITIES, WILL PRESENT PROPOSALS AND INNOVATIONS DESIGNED TO IMPROVE OUR ADAPTATIONS TO OUR FOUR-SEASON CLIMATE AND PARTICULARLY WINTER. THESE LESS FORMAL SESSIONS WILL BE IN ADDITION TO THE MORE TECHNICAL SESSIONS TO BE OUTLINED IN DETAIL IN A BROCHURE TO BE INCLUDED WITH THE NEXT ISSUE OF NEWSLETTER. ALSO CONCURRENT WILL BE THE COLLOQUIUM OF THE COMMITTEE ON HOUSING, BUILDING AND PLANNING OF UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE. ALL SESSIONS WILL BE OPEN TO ALL DELEGATES. LWCA MEMBERS AND NEWSLETTER READERS ARE INVITED TO SUBMIT APPROPRIATE PROPOSALS OR IDEAS FOR INCLUSION IN THE SHOW-AND-TELL SESSIONS. WRITE, OUTLINING YOUR PROPOSAL, TO ROLAND NOGUE, PRESIDENT, WINTER CITIES CORPORATION, EDMONTON CITY HALL, EDMONTON, ALTA., T5J 2R7, OR TELEPHONE (403) 428 3576.

ASSOCIATION NEWS

PROGRAM DETAILS FOR WINTER CITIES '86 FORUM NEARING COMPLETION

Roland Nogue, Winter Cities Corporation President, reports from Edmonton that the format and program details for Winter Cities '86 International Forum, to be held Feb. 15 to 19, 1986, in Edmonton Convention Centre, are in the final stage of preparation. A detailed outline will be published in the next issue of NEWSLETTER.

Co-hosts will be the City of Edmonton and the Livable Winter City Association. After formation of the Winter Cities Corporation for the purpose of organizing and managing the Forum, a board of directors was chosen from among leading citizens of Edmonton to assume direction of the Forum and related events. The board is still being enlarged and its membership will be announced when final appointments have been made. In early meetings it was felt by the board that two major events, planned initially to be held concurrently with the '86 Forum, should be deferred until 1988 and expanded into a major northern exhibition and festival to coincide with the Winter Olympics in Calgary.

The 1986 event will, as a result, consist of the symposium, as originally planned, plus exhibits (but not a full-blown exhibition), a smaller-scale fiesta (the major festival originally planned again to be deferred to 1988), numerous case history and show and tell sessions with a display area featuring models and pictorial material. There will also be mobile workshops and orientation tours. Mayor Takeshi Itagaki of Sapporo, Japan, organizer of the First Northern Intercity Conference, held in 1983, has been invited to attend, as well as outstanding authorities and speakers from Europe and North America.

Anne Lambert of University of Alberta is organizing an exhibition of cold weather clothing, including historic items from the University's collection. Sheila Graham is organizing a feature in which "peoples' winter ideas" will be put on display. She is issuing a call to communities and individuals who have interesting or unusual ideas on "how to improve our winter lives" to get in touch with her (c/o Winter Cities Corporation, Edmonton City Hall, Edmonton, Alta., T5J 2R7) so that she may arrange for the suitable display of the most unique and useful such ideas. Architects, planners and developers with models or drawings of climate-oriented structures and schemes are asked to write to Pam Freeman, Vice-President Administration, describing them, so that a number of the best solutions may be exhibited. (please use same address).

100 INVITED TO WINE AND CHEESE PARTY TO INITIATE EDMONTON LWCA CHAPTER

Invitations went out this week to some 100 Edmontonians known to be interested in the "Winter City" idea inviting them to a wine and cheese social gathering April 11 with the purpose of initiating Edmonton Chapter of the Livable Winter City Association. The event will be at 7.30 p.m. on the Mezzanine level of Edmonton Petroleum Club, 11110 - 108 st. Zard Sarty of Landscape Planning Group, is heading up the organizing committee.

After a social hour, Arni Fullerton will describe LWCA and review the history of the organization; Roland Nogue will outline projects now being undertaken including the Winter Cities '86 Forum and the meeting will then be thrown open for discussion as to steps to be taken in order to launch the new chapter.

NATIONAL PRESIDENT, VICE-PRESIDENT, ON SPEAKING TOUR REACHING FROM
CALGARY TO FINLAND

Prof. Norman Pressman, LWCA National President, and Ms. Xenia Zepic, National Vice-President, are presently in Europe completing a series of speaking engagements that has taken them across Canada and to five other countries.

Speaking as a team and using a selection of slides, they launched the series at Winter Cities '85 Colloquium Feb. 2 in the Government Conference Centre, Ottawa (see article, page 15). On February 6 and 7 Prof. Pressman and Ms. Zepic were in Calgary. They spoke first to a group of some 100 students and staff of the Faculty of Environmental Design and later to a general meeting, also held at University of Calgary. February 11, 12 they spoke three times in Winnipeg, first to a large audience made up of students and staff of the Institute of Urban Studies, later to a large general meeting that had been organized by Alan F.J. Artibise, Director of the Institute. The following day they spoke to a group of students and staff at University of Manitoba Faculty of Architecture on invitation of Prof. Thomas H. Hodne Jr., Dean of the Faculty.

On March 9, Pressman and Zepic were in Akron, Ohio to speak to a select group of invitees including mayors, architects, planners, and academics. This session was organized by Dr. Gary Gappert, Director of the Institute for Future Studies at University of Akron.

On March 17 they set out for Europe with commitments to stop off at Iceland in order to speak to that country's association of architects. Next stop was Finland where they addressed groups at the Universities in Helsinki, Tampere and Ulu also to a group assembled by the Finnish association of architects. On the way home they will speak to architectural, government and academic audiences in Sweden and in Norway to the Architectural Society and the architectural faculty at University of Trondheim.

Their theme is the winter cities movement and the objectives and achievements of the Livable Winter City Association touching also on parallel activities taking place in the Scandinavian countries.

They stress five major points:

Northerners must begin to "think winter", to "rediscover the magic in winter" and build it into our lives and plans;

Mega-projects are not always best suited to human needs and emotions -- they must be used selectively;

There is an imperative need to begin to formulate explicit "winter improvement policies";

Research related to climate adaptations of "physical and social environments and associated behavioural patterns" should be encouraged;

Climate should be regarded as a "significant modifier of urban structure and development policy" and sun, wind, vegetation and other natural phenomena must be considered in urban designs and plans.

While our National President and Vice-President were speaking in Scandinavia, Arni Fullerton, Planning Director Central Edmonton and LWCA Director was speaking in similar vein to a seminar in Stuttgart, Germany organized by Frei Otto world-known engineer and designer. (See page 21).

Prof. Pressman will return to Europe later in the year to guest lecture at Ecole Polytechnique at Lausanne, Switzerland, and will also be involved in the Institute for Research in the Built Environment, also in Switzerland.

TORONTO CHAPTER URGES SPECIAL STUDENT MEMBERSHIP FEE

Meeting Feb. 21 in Metro Toronto Planning dept. boardroom, Toronto City Hall, Toronto Chapter heard committee reports and proposed several key changes in procedures of the national body, the chapter and NEWSLETTER. Seventeen persons attended. Greg Ross, Chapter Chairman, presided.

The proposals:

- That Toronto chapter recommend to national executive that special membership fees at reduced rates be offered to university and college students. It was suggested the special fee be \$20 to include the subscription price of NEWSLETTER.
- It was agreed to hold two types of meetings in future. Business meetings would be held more frequently and would primarily deal with organizational matters. Executive members and committee chairmen would attend these meetings but other members could also attend if they wished. Meetings held less frequently, possibly each second or third month, would be more informal and informative giving an opportunity for socializing, exchanges and possibly the holding of workshops or seminars. Each type of meeting would be called by the Chapter chairman. Informal do's might be wine and cheese events.
- On motion of Vladimir Matus, national Membership Chairman, it was agreed LWCA should be a vehicle in which members, drawn from a variety of professions and disciplines, might exchange information as to types of services offered and projects undertaken. Matus suggested new and present members be provided with a form in which they might give as much information about themselves and their professional activity as they chose and that these be circulated or published in NEWSLETTER.

Sarah Heinonen reported for the Advertising and Promotion committee urging that activity in this area be stepped up sharply. Discussion called attention to present financial limitations of the Association and Chapter and urged that proposals be cleared with Al Sutton, treasurer before too much effort had been put into them.

Peter Shore reported for the Winterfest Committee that his group, including Geoff Fryer, Xenia Zepic, and Walter Kehm had made contacts with certain civic leaders and had been encouraged to come forward with a detailed proposal. It was suggested further contacts be made with those likely to be involved such as Don Ferguson, Operations Manager of Exhibition Place, and Canadian National Exhibition.

On motion of George Stockton, chairman of the Program Committee, it was decided to combine his committee with the Education Committee since functions of the two committees largely overlap.

Lecture Series Planned for Next Fall

Stockton also reported the Program Committee is hard at work preparing for a series of public lectures to be held next fall and winter. Outstanding speakers, including some from outside of Canada, are being approached to see whether they would be available to speak. The lectures would probably be held in the evening at a central location and would be actively promoted. Ample opportunity would be given for questions and discussion, "a chance for a free exchange with some of the best authorities available." Next business meeting of the Chapter -- April 18.

OTTAWA CHAPTER HOLDS ORGANIZATIONAL MEETING

Ottawa LWCA members and supporters met March 6 in a boardroom at Ottawa City Hall to take preparatory steps towards formal organization of Ottawa Chapter. Sixteen persons attended. Byron Johnson, National Executive-Secretary presided. Patrick Chen, Past President, reviewed the history and achievements of the Association for the benefit of first-time attendees.

Johnson presented a project list for discussion and also to determine the areas of interest of members. The list included: a Proposed Program Committee that would develop program ideas for Chapter meetings; A Special Events Committee that would explore ideas for winter carnivals or events that might supplement Ottawa's immensely successful "Winterlude" held annually as a mid-winter celebration; A Committee on Self-Animating Projects, such as organization of local skating rinks or ski trails; A Committee on Winter Play Facilities, an area strongly supported by Ottawa City Planning Department spearheaded by Sheila Pepper, Recreation Planner and LWCA founding and executive member; A Research Committee to encourage such studies as the famous "Sun and Wind" research previously undertaken by Ottawa Planning department; and a Special Committee on the Design, Planning and Construction of New Facilities, concerning itself with making sure new construction and changes in existing buildings would not take place without awareness of "winter city" ideas and printed material. Attendees were asked to think about the project list and be prepared at the next meeting, to be held in mid-April, to refine it and indicate areas of preferred involvement.

Since Johnson plans shortly to move to Vancouver, Chen agreed to take on the task of maintaining contact with key government departments and agencies that might be prepared to come forward with financial or other support for Ottawa Chapter projects. A committee of seven members was assigned to prepare for the inaugural meeting and to put forward nominations for officers. Members of the committee: Byron Johnson, Patrick Chen, Sheila Pepper, Chris Bradshaw, Susan Smith, Rose Kung, and Mary Jo Hollands-Hurst.

Patrick Chen agreed to make a presentation on the subject of LWCA to the annual meeting of the Federation of Canadian Municipalities in September. Members expressed a keen desire to assist by any means possible in the organization and preparations for the International Forum to be held in Edmonton Convention Centre next February with the City of Edmonton and LWCA as joint hosts. Sheila Pepper was asked to write to Roland Nogue, Winter Cities Corporation president, offering such assistance.

A.A.L.A. TO CONSIDER FORMATION OF ATLANTIC LWCA CHAPTER

Peter Klynstra, president, Landscape Architects Ltd., Halifax, reports the Atlantic Association of Landscape Architects is talking about formation of a chapter of LWCA as an "umbrella" to bring together groups and individuals in the Atlantic region interested in the design and planning of cities and communities. The interest was sparked by Patrick Chen, LWCA Past President, who put on a one-man seminar recently for A.A.L.A. The Atlantic group meeting in Halifax March 2 voted to include the LWCA Chapter proposal in the agenda for its next meeting to be held in May. Reinhart Petersmann, A.A.L.A. president chaired the meeting with some 15 landscape architects from all the Atlantic provinces in attendance.

HELP! HELP! ROBIN REILLY WANTS NAMES OF ANY UNIVERSITIES OR SCHOOLS THAT GIVE NORTHERN DESIGN, PLANNING COURSES

To the Editor:

I wish to congratulate you on recent issues of NEWSLETTER. The articles are brimming with enthusiasm and optimism, both important commodities for a new organization.

In the last year I have made the enormous move (linearly and environmentally speaking) from Halifax to Haines Junction, Yukon. If I felt Halifax needed winter conscious design, can you imagine how I feel here, north of '60!

NEWSLETTER seems the only place I can turn for several answers I am anxious to have:

1) NEWSLETTER mentions trying to start chapters across the country and I was wondering if anyone has expressed this desire from the North or perhaps from B.C. If so, I'd appreciate receiving their names so that I could consider forming a Yukon group;

2) I'm considering travelling in Northern Europe this fall and was wondering if anyone has compiled a list of places worth seeing as innovative examples of northern design;

3) Presently, I am working on the management, planning and design of visitor facilities for Parks Canada in Kluane National Park. I have a Master's Degree in Planning from York University and another Master's Degree in Landscape Design from a private school in Massachusetts. Neither of these gave much emphasis to the northern context. This environment has always intrigued me, and now that I live here I see the need for appropriate regional design everywhere. I've been writing and talking to anyone I can about where someone with my background might study design issues and techniques relating to the north. Do you know of anywhere in Canada, Alaska, Sweden or of anywhere else with programs emphasizing Northern Architecture, Planning or Landscape Design. My personal focus lies with areas on the latitude of Edmonton or further north. Typically boreal or sub-arctic environments. Further, my interests are not confined to cities but also include parks, transportation corridors, and community development. I am aware of several Canadian schools with research programs concentrating on the northern environment, but to the best of my knowledge no professional schools of Architecture, Planning or Landscape Architecture claim that turf.

I realize this is much to ask so please don't hesitate to spread the word. One of the problems with living in the Yukon (and there aren't many) is that it is difficult to keep in touch with members of the professional and academic design community.

Robin Reilly, P.O. Box 5471,
Haines Junction, Yukon, Y0B 1L0

(Ed. note: Readers are invited to respond particularly to Robin Reilly's third request. Write directly if you prefer but NEWSLETTER would like to receive copies of your letters since we'd like to know the answer too... and to publish it. We have written to Robin Reilly with our answers to questions 1 and 2.)

GUEST EDITORIAL

CLIMATE HAS PROFOUND EFFECT ON HUMAN BEHAVIOUR

by Dr. Michael A. Persinger

Sorting out weather from among the numerous conditions impacting human minds and bodies is no easy matter -- by comparatively small impact on entire populations, weather/climate exerts a significant force



Dr. Persinger

(Dr. Michael A. Persinger, Professor of Psychology at the Behavioural Neuroscience Laboratory, Laurentian University, Sudbury, is a leading Canadian biometeorologist. He is also a founding member of the Livable Winter City Association.)

The last ten years have been a major inflection point for the science of biometeorology (study of the effect of climate on living organisms). Four important findings have emerged. First, day-to-day variations in weather and the cumulative effects of season have profound impacts upon psychological processes. Second, precise differentiation of weather into realistic categories (such as weather phases) allows specific types of behaviours to be predicted. Third, the interaction between season (climate) and weather (short-term changes), although complicated is even more powerful than previously expected. Fourth, central neural disorders, similar to those that influence emotional disorders, may also mediate weather effects in the average person.

Both season and weather appear to influence mood and general activity. In addition, certain weather changes have a remarkable effect on sleep patterns and circadian rhythms. Slight disturbances in sleep or daily rhythms contribute to failures of vigilance, irritability and a general negative affect (emotion) the following day. Studies at Laurentian University indicate that weather-related disturbances in sleep changes, pain thresholds (which influence anxiety) and restlessness are substantial in some people. We have just begun an investigation to determine their relationship with personality.

The "psychological effects" of weather are usually evident only by their social, overt endpoints such as accidents, or hospital admissions. When large populations (like Toronto, Montreal or Vancouver) are considered, the effects of weather are very clear. Even when the obstructional (snow, rain) features of weather are removed, influxes of certain air masses have epidemiological impacts on the population. The effect has been less emphasized in the past because many of the symptoms influenced by weather are not specific. That is, they can be produced by a variety of other social and disease-related sources. Thus the effect of weather changes are underestimated.

We have also found that although weather, particularly extreme variations, may only influence about 20 percent of the variability in a single person's behaviour, this has a tremendous impact upon his or her productivity. Complicated cognitive processes (like thinking) are among the first to be influenced. By the end of the day, the cumulative effects of spontaneous irritability, or periodic decreases in vigilance (drifting, daydreaming) are evident. Some weather phases are associated with increases in productivity (usually correlated with elevated mood). However, interestingly enough, it is usually not attributed to weather. In the populations we have studied, weather is usually blamed for the "adverse effects."

V. Faust in Basel, Switzerland and his group have shown how important it is to perceive weather as a whole, not as pieces or **physical parameters** (like temperature or humidity). They analyzed 18,000 admissions to a psychiatric hospital over a 13-year period. Schizophrenic patients were more agitated and showed worsening symptoms as the forward edge of a warm front moved over the area. The effect was intensified if a low pressure warm air mass was sandwiched between two high pressure cold air masses. The importance of the study is its indication that different types of psychological disturbances were affected by different patterns in weather.

No doubt there are clear regional differences in how people respond to weather. In Bavaria, for example, the frequency of passage of certain air masses are particularly bioeffective. Some agencies issue daily biotrophic indices that presumably allow prediction of aggressive or agitated behaviours. The index is something like the comfort indices used seasonally in Canada.

Seasonal effects interact with and determine the direction of weather effects. Our studies indicate that the winter season has a profound impact on behaviour because of the coerced changes in spontaneous activity, stimulus redundancy (snow everywhere) and the general negativity of the season. They lead to a collection of diffuse symptoms by early January that continue through March. The effects, although cumulative, are gradual and hence most people are not aware of the causes; they are only clear when daily records are kept.

The complicated interaction between season and weather is slowly being understood. For example, F. Besancon and his colleagues in France evaluated about 3,000 suicide attempts (over a two-year period) in a population of 1.5 million within a district of Paris. These attempts, which usually reflect the neurochemical correlates of depression, occurred not during the influxes of warm air during the spring, but during influxes of cold air during the fall.

Finally, there has been substantial progress in understanding the neuropsychological mechanisms that mediate weather and seasonal effects. It is now clear that weather effects are very similar to the symptoms and behaviours that are evoked by changes in central noradrenergic pathways within the brain. One promising candidate is the locus ceruleus; it is intimately involved with sleep-dream cycles, the experiences of anxiety and restlessness, vigilance, memory, and a variety of weather relevant autonomic changes (such as water retention). This discovery has shed some light on why certain groups of people should be more responsive to weather and to season.

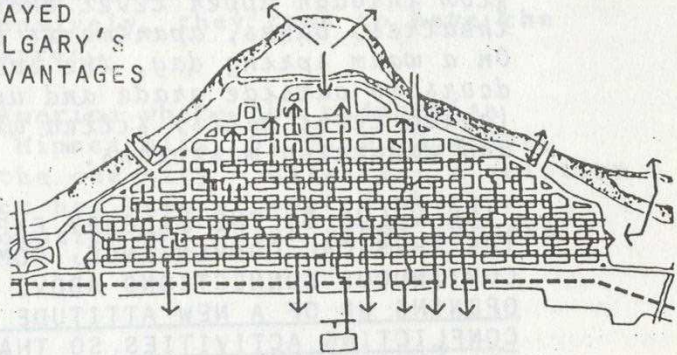
I have only briefly outlined the major developments in biometeorology within the last few years. Although weather and season are important, it must be remembered that many other factors can influence behaviour. At an individual level, the effects may be (on the average) small and comparable to the effects of a domestic misunderstanding. But when applied to the behaviour of an entire city of people, the changes can have synergistic and significant impact.

FEATURE ARTICLE

A CITY FOR ALL SEASONS

AN ARCHITECT-PLANNER WHO PLAYED
A MAJOR ROLE IN EVOLVING CALGARY'S
+15 SYSTEM DISCUSSES THE ADVANTAGES
OF THE MULTI-LEVEL CITY

By Harold Hanen

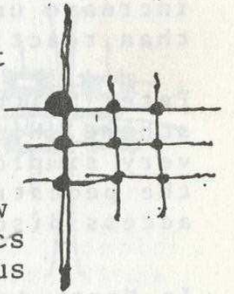


Born in Calgary, Harold Hanen reached for the top in architecture by joining the coterie of students surrounding Frank Lloyd Wright studying with Wright at Scottsdale, Ariz., in winter and at Spring Green, Wis., in summer. He then attended Rhode Island School of Design at Providence, R.I., then finished his academic training with a course at Massachusetts Institute of Technology. Returning to Calgary, Hanen accepted a position with the city's planning and building department as Head of Design and Implementation, with special responsibility for the development of the downtown core. After three years he resigned to found Pard Associates, a multi-disciplinary group that created a number of award-winning designs. He presently heads up his own architectural firm in Calgary.

SYSTEMS

The city is like a symphonic score. Stripped, it can be seen as a layering of interrelated movement systems whose structure provides the orchestration and direction which synthesizes the individual solos and improvisations over time. The quality of a city depends, as does the symphony on the harmonious interplay of the parts of the system.

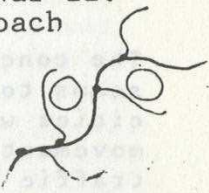
The patterns of the movement system can either enhance, protect or stimulate the use of the city in winter, or conversely make it miserable. It can welcome all its citizens to its activities, or it can exclude them. We already spend the money to build our cities, perhaps it is time we consider spending it differently.



The quality of cities has not consistently evolved. At a very few special moments in time and place, technology, politics, economics and culture have come together enabling the creation of harmonious and whole cities like Venice, Athens and Rome. More often, these forces and the result were out of balance.

HOLISM

We are now in one of those awkward unbalanced periods. Since World War II, architects and city planners have generally taken a fragmented approach to the organizational design of our city cores, more often than not considering its parts in isolation and the built 3.D detail independent of an abstract 2.D plan.



Says HANEN: Flat 2.D cities "favor the wheeled at the expense of the footed."

"Upper level bridging does two aesthetically satisfying things. It arrests the boring infinity both for the driver and pedestrian at grade, and at the upper level it creates a memorable visual experience."

Also - Calgary's three-dimensional downtown core " could be the prototype 21st Century city of the planet."

"On a winter February day, at lunch hour, one can see streams of office workers, in short sleeves and dresses, flow through upper level channels of shops, restaurants, theatres, banks, apartments and fountained garden atriums. On a warm spring day, the same +15 promenaders pour out of doors to outside grade and upped level plazas and to the (grade-level malls) filled with benches, tables, trees and wandering musicians."

"THE VALUE OF THE CALGARY EXPERIENCE IS NOT ONLY IN PROVIDING THE PHYSICAL CONVENIENCE, COMFORT AND SAFETY PROVIDED BY CONTINUOUS CONNECTIONS ABOVE TRAFFIC, BUT MORE IN THE OPENING UP OF A NEW ATTITUDE TO INTEGRATING WHAT WERE CONFLICTING ACTIVITIES SO THAT THEY SUPPORT EACH OTHER AND CREATE ANOTHER NEW DYNAMIC."

Since the beginning of this century the new unprecedented realities of vehicular mobility and high rise building technology have profoundly increased the intensity of competition for the city's land surface. These conflicts have all too often resulted in civic environments detrimental to basic rights of access, safety, comfort and aesthetic experience. In most instances, their resolution has been attempted within a flat, public city concept context.

POLITICS

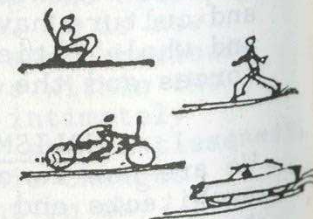
The result is a politic which strongly favours the wheeled at the expense of the footed, disenfranchisement of large segments of our population from the city core and the slow and insidious reduction of liveability within the public city. The pervasive sense of constant dodging, constant noise, constant pressure are impossible to measure in absolute terms. Inevitably they will increase unless more emphasis is placed on a preventative rather than reactive planning attitude.

Peter Smithson was one post-war designer of a grade separated scheme. His Berlin Hauptstadt competition entry (1958) had a very simple plan. "The main idea is to give the motorist and the pedestrian equal rights to freedom of movement and freedom of access discriminating against neither".

In North America only a handful of cities have attempted to resolve, by grade separation, the fundamental conflicts of speed, scale, convenience, safety and comfort which arise between vehicular and pedestrian movements.

THE THIRD DIMENSION

The concept of three dimensional public movement infrastructure seems to me very natural and appropriate for highly dense cities where the efficiency, safety and quality of pedestrian movements is increasingly threatened by expanding vehicular traffic movements. In New York city, the number of pedestrians hit by cars, many of them running lights or crowding a curve, runs to 15,000 a year. It is my belief that the positive potential benefits of multi-level pedestrian movement systems, over existing ground level restraints, must be exploited if this trend, with its accompanying negative impacts, is to be effected.



Several major Canadian cities, because of the additional pragmatic incentive of protection from the cold, have added another layer to their public pedestrian infrastructure. Toronto and Montreal have gone underground. In these cases the vehicle has claimed the quality, environment at the expense of the pedestrian experience and since they have not been planned comprehensively, they tend to have the quality of a labyrinth or rabbit warren.

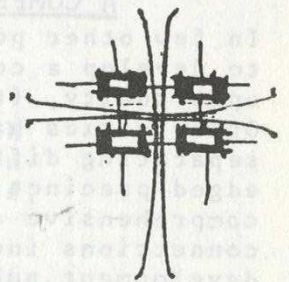
There are several cities in North America where the pedestrian network has been expanded upwards: Minneapolis, St. Paul, Spokane, Dallas, Des Moines and Calgary. In the one city - Calgary - a solution to the pedestrian/vehicular conflict has been attempted which combines more than a simple deck solution and which shows success now though only part complete.

THE CALGARY EXPERIENCE

Calgary's downtown core, in which I was intimately involved in planning and which Viscount Esher describes as an "aerial souk spanning the old streets the way Venetian alleys span the canals" because of its comprehensive multi level approach to public movement systems, methodology of ensuring the integration of private and public developments and rapid growth in the past decade, now provides the potential for a unique base of study of the shortcomings, benefits and potentials of weaving a wholesome three dimensional fabric of movement which reflects the specificity of each city and perhaps add some poetry to prevalent mechanistic city engineering.

Calgary is very young, only 100 years old. It was an agricultural town, the last big stop on the Canadian Pacific Railroad's trans-continental tour before its spiralling ascent up the Rockies. Calgary, like many cities in the 1950-60's effected by increasing development, was becoming an unpleasant, unsafe city to walk. In 1968 the city planners recognized that the successful humane redevelopment of the downtown was dependent not only on providing for the projected increases of motorized vehicles but more significantly of pedestrian movements, their services and recreational needs.

A plan was devised to accommodate the needs of future foot traffic in the downtown core. These needs were identified as convenient and safe access to diverse activities for all persons including the young, old and handicapped, protection from bad weather and enriched spatial experiences. A system which could incrementally be extended over time as need and means permitted.



SKYWALKING

The entire system included at ground level, riverbank walkways, major axial north-south and east-west malls and the existing sidewalks circling each gridiron block. At the upper levels an elevated system of public walkways, one, two and three levels above ground, open to sky, sheltered and enclosed public spaces surrounded by the normal urban uses of retail, residential, cultural, recreational, commercial, educational and the important social activities of chance meetings and people watching. The system levels are referred to as the "+15" or "+30" or "+45", these being the nominal clearance above grade level. The upper level activity is now called Skywalking.

The most conspicuous external elements of the elevated systems are the pedestrian bridges that span the ground level vehicular routes, mostly one way rivers of traffic roaring through canyons of glass. In the last 15 years 31 such bridges have been built. Less obvious, but equally important, are the 8 kilometres of public easements which provide continuity through both the public and private buildings. Vertical connections via stairs, escalators and elevators provide access between grade, the +15 level, the +30 level and to an enclosed 3 acre park at the +45 level.

On a winter February day, at lunch hour, one can see streams of office workers, in short sleeves and dresses, flow through upper level channels of shops, restaurants, theatres, banks, apartments and fountained garden atriums. On a warm spring day the same +15 promenaders pour out of doors to outside grade and upper level plazas and to the heritage building lined Stephen Avenue Mall filled with benches, tables, trees and wandering musicians.

CHILDREN AND OLDSTERS

Great numbers of youngsters now appear in the city core in all seasons using play facilities on the outdoor grade level mall as well as on the +45 level park. A start to the re-establishment of the city center as a 3.D encyclopedia for children to explore and to learn.

Provision has been made for handicapped persons access into and continuity within the upper level systems. Since its inception there has been a noticeable increase in older and disabled persons in the downtown in inclement weather.

In the process of creating anything worthwhile, there are three stages: the dreaming, the planning and the doing. After completing the dreaming and planning of the +15 skyways, the next step was the implementation.

A COMPREHENSIVE APPROACH

In few other post-war downtowns were the planning determination to develop a comprehensive pedestrian system and the opportunity, (the oil boom of the 70's) so closely matched. Other cities have realized the more limited goals of separating different movement systems within a discrete edged precinct. Calgary's system, by contrast, is both comprehensive and open ended, developing extensions and connections incrementally as required. Each new development, public or private, contributes to the system.

The key issue was the recognition that we all have a common, shared, basic, vested interest in what will be. That the making of a city is an act of partnership between private industry and government. The challenge was to transcend the narrower vested interests of property and role position and collectively contribute to the development of a system beneficial to all.

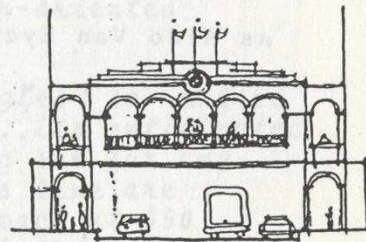
A bonus system, the heart of the implementation strategy, was devised to break the traditional public/private barriers. This system established a formula of trade-offs by which developers provided specified public space amenities in exchange for specific ratios of building density.



Calgary's 3.D movement system has also opened up a sensibility always lurking in man's subconscious; that of multi-level activity. Ideas, previously a speculation of da Vinci's, a failed attempt of the Adams Brothers, a grand constructional speculation of Daytons (but no more) and a dream of Antonio Santa Elias, are coming to fruition here and which could be the prototype 21st Century city of the planet.

For example, Calgary's movement channel pattern is typical prairie gridiron. While a grid pattern has definite advantages of simplicity and good orientation, the views from the sidewalks are down open ended corridors to vistas of infinity. Upper level bridging does two aesthetically satisfying things. It arrests the boring infinity both for the driver and pedestrian at grade and at the upper level it creates a memorable visual experience. As one emerges at right angles from the block, above the flow of the streets, a heightened and central view bursts open down the dynamic city canyons to the Rockies beyond. The result is a reassuring sense of place in a regional as well as microscale context.

This leads to the question of the visual form of the 3.D cities and the role of bridges in their structural expression, as reinforcers of senses of specific place, in an often architecturally anonymous streetscape or as expressions of celebrations.



" What we require is a landscape, technically organized so that its parts work together, but visually coherent as well and whose visual image is congruent with its life and action."

- Kevin Lynch -

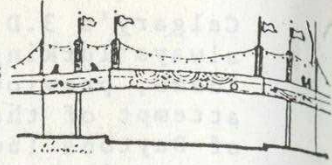
The value of the Calgary experience is not only in providing the physical convenience, comfort and safety provided by continuous connections above traffic, but more in the opening up of a new attitude to integrating what were conflicting activities so that they support each other and create another new dynamic.

THE HOUSTON COMPARISON

Houston, Texas, which experiences similar explosive growth in the 70's is an interesting contrast to Calgary. Houston developments are a complete and closed world in themselves, each building an island with little, if any, relationship with each other. Calgary architects, on the other hand, have had to extend their focus beyond the abstract walls of property lines and address the real challenges of incorporating and sharing with neighbors pedestrian public multi-level spaces. In some instances they have responded with an exuberance of expression reminiscent of Milan's Galleria Vittoria Emmanual II and the aggregate result is a cohesiveness of urban form, atypical of most contemporary cities.

We should be able to thoughtfully provide alternative choreographys for man's daily passages to work and play, to permit him to feel the quality of space and surround him with the special sense of that city's specific spatial character.

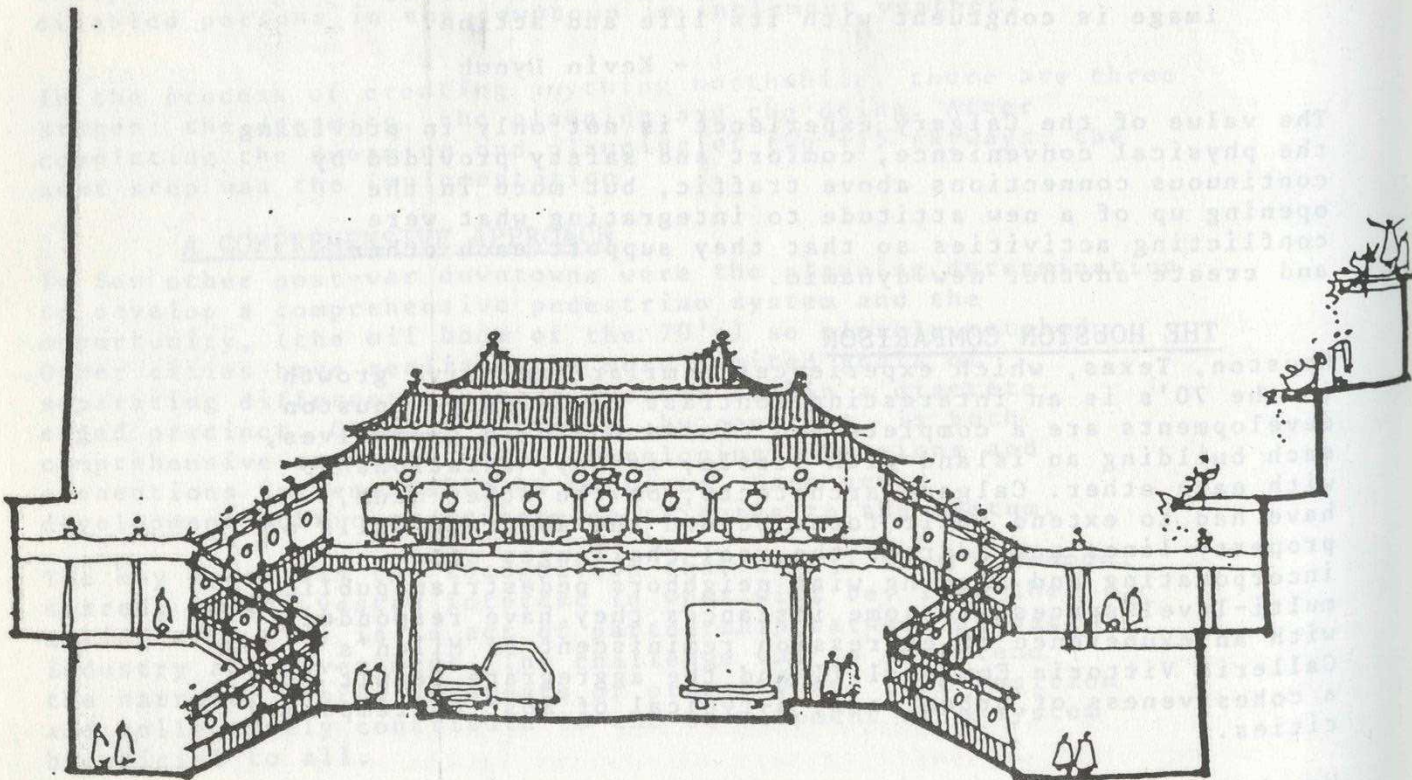
The collective images and understandings necessary to incorporate these fundamental requirements into a more liveable and new humanistic expression, unique to our time, have been slow in coming. I believe that our cities like our houses, clothing and other forms of personal environment, should reflect and be responsive to our feelings. They should make a happy day happier, a solemn event more solemn, pompous occasions more pompous. They should support the moment - make the place.



The new multi-level conception of the public inner city, which incorporates a new way or urban walking, is a very good harbinger of the future. A built environment where space and volumetrics are again considered, where the awareness of the dynamic interplay of function and aesthetic stimulate a rich choreography of the various urban movement elements at different levels and where new standards of safety and comfort can re-enfranchise the disfranchised. Such a future humane city form holds many exciting possibilities for the people of the 21st Century.

As Aldo Van Eyck said:

" This much is certain. The Town has no room for the citizen - no meaning at all - unless he is gathered into its meaning. As for architecture- it need do no more than assist man's homecoming."



The basis of orientation is where you are and when you are.

LOOKING AHEAD . . .

LAND OWNERSHIP CUSTOMS CREATE MAJOR DIFFICULTY IN "THIRD WAVE" WORLD

FAMED ARCHITECT-PLANNER EBERHARD H. ZEIDLER GIVES LWCA OTTAWA COLLOQUIUM HIS VIEW OF THE FUTURE OF CITIES IN A WORLD OF COMPUTERS AND ROBOTS

"One of the most crucial issues in the coming (urban) evolution is the ownership of land...In a post-industrial society, a simplistic view of private ownership becomes illusionary and outright dangerous. I am not advocating the abolition of private ownership, but I am advocating a system in which the city benefits from its improvements and is therefore capable of providing them.

"A simple example is public transportation, particularly important for the winter city. The cost, both capital and operating, makes it nearly impossible for municipalities to introduce new transportation systems without massive federal subsidies that are seldom available. Yet the cost to society of not introducing them is much greater, because their lack squanders urban land resources, forces people to move further and further from the centre, and thereby increases the need for even more expensive car-oriented highways and supply systems, and so on.

"At present, Toronto seems to be blocked by endless struggles to realize a much-needed transportation system along its waterfront...its anticipated cost is approximately \$100 million, a seemingly staggering sum for any city to pay. Yet, all that would be needed to pay for this line are 2 million square feet of additional rentable commercial space at \$50 land cost, which would be possible through such additional transportation... In fact, nearly ten times as much office space is expected to grow along the line (if and when constructed). But, at present, these benefits do not return to the city, but to the landowner for the sheer luck of owning a piece of land adjacent to the transportation system.

"If, for example, the city could give additional densities within two to four minutes walking distance from these new transportation stops at a commensurate rate of repayment from the landowner, both the city and the landowner would benefit. The landowner would receive a piece of property that is of more value to him and the city could finance its transportation cost without an additional financial burden. Both gain. Why can't we do it?"

Above quote is from an address delivered by Toronto architect Eberhard H. Zeidler to "Winter Cities '85 Colloquium," held Feb. 2 at the Government Convention Centre, Ottawa. More than 100 attended the event organized by Byron Johnson, Executive Secretary of the Livable Winter City Association, (who will shortly be moving to Vancouver). The event was staged as one of the fringe activities associated with Ottawa's colorful ten-day winter carnival and gala, "Winterlude". Funding for the Colloquium was provided by the National Capital Commission and organizational assistance was given by N.C.C. and the Canadian Federation of Municipalities.

The Colloquium had dual themes -- the planning and the "animating" of winter use facilities. Speakers included Dr. William C. Rogers, of Minneapolis, pioneer of the "winter city movement", Patrick Chen, LWCA Past President; Andre Bonin of the N.C.C. Prof. Norman Pressman, President, and Ms. Xenia Zepic, Vice-President of LWCA, speaking as a team; and Alderman Marlene Catterall of Ottawa. Byron Johnson was master of ceremonies.

Ald. Catterall, Ian A. Dewar, General Manager of the National Capital Commission who gave opening remarks, and Andre Bonin sounded a common note: Ottawa, "one of the world's coldest and snowiest capitals" should set an example for other Canadian and northern cities by striving to make itself "a model for winter cities". Canada's capital "must press forward with innovations, experiments and public policies to recapture the joy and glamour of the cold and snowy season."

On "The New Society and the Future City", Zeidler commented:

"The third wave is presently changing our society. The possibility of artificial intelligence makes a new attitude towards work possible aided by the computer and its robot application. This new wave will change the city drastically, but will not diminish it, as Toffler predicted with his electronic cottage...."

Technology has shown itself to be both friend and enemy of the "winter city". The house and its heating system, the railroad, the factory, and finally the car changed life drastically within the city, particularly the northern city. "However, air conditioning, the car and the airplane -- as necessities -- seemed to shift the advantage towards the southern cities... the car has not adjusted to the winter environment, resulting in much of the pressure and unpleasantness that we now experience in the city -- the traffic snarls, the salt, the dirt and many other things created by the car which have taken the joy out of winter...the airplane simply allows us to escape winter by spending our holidays in the sun, -- or encouraged by it, perhaps to escape winter forever."

We have become dependent on technology and cannot "move back into bygone stages of technology, no more than we can return to earlier biological stages of our being." However in northern cities, "winter hazards literally stop the movement to which cities have become accustomed. It seems that technology has forgotten how to adjust to the winter city...."

"To revitalize the winter city, we must concentrate on these (technological) issues and deal with them, to free the city of technological hazards. At the moment we are not thinking creatively about these issues. Just salting the roads is not enough."

But technology goes hand in hand with our emotional reactions and attitudes. "In the end it will be our emotional response to the city, to the winter city in particular, that will determine its survival...The city must be capable of giving both social contact and individual solitude in all seasons. The busy street and quiet park are both essential elements of a city. Yet the winter climate creates added design problems for both."

"Unfortunately, in the last decade we have fallen prey to the mistaken idea that to resolve an issue functionally resolves it in total. We have to observe the human being and his or her emotional reactions more carefully in order to find again the city that responds to human needs -- and the joy of living is one of them."

DR. FREDERICK GUTHEIM HAS A GOOD WORD FOR "RESHAPING WINTER CITIES"

Dr. Frederick (Fritz) Gutheim of Washington, D.C., world-known planner and consultant and early supporter of the "winter city movement" has encouraging words for "Reshaping Winter Cities" book newly published by LWCA and assembled by Prof. Norman Pressman (see yellow order form separately included). "It looks like just what the market wanted and I hope it is a great success," he wrote. "It ought to tell us something about the overseas demand, too."

EXPANDING MANITOUWADGE HAS MULTI-PHASE PLAN WITH SOME FIRST-TIME CLIMATE DESIGN FEATURES FOR UPDATING DOWNTOWN AREA

Hallmarket Square shopping mall, opening this year, begins 5-10 year program to increase retail and service facilities while also making the Northern Ontario town more comfortable and attractive

Manitouwadge (pop. nearly 4,000) in Northern Ontario faces a period of spectacular growth as new gold mines start up in the Hemlo area, some 25 miles to the south. Town council intends to use this period of growth to revamp the downtown area in order to make it more functional and attractive and has voted in favor of a plan, extending up to ten years, to achieve this result.

Some 89 houses are to be built this year, 120 more in 1986. Presently the town is home for some 600 miners employed by Geco lead-zinc-copper mine and employees of Ontario Paper and their families. With the imminent startup of the Noranda Hemlo gold mine, 450 additional miners are expected to move in, about half bringing their families. Other mining companies have plans to open mines in the Hemlo triangle.

Hallmark Hotels Ltd., designer and builder of the Hallmark-Hornepayne Town Centre at Hornepayne, Ont., is in the process of developing Phase One of a new shopping mall and is also preparing for future development of the entire downtown core. The mall is to be called, Hallmarket Square. Sketched plans on pages 18 and 19 show the initial phase and a proposal for the completed project.

Hallmarket Square, due to be constructed this year, will be an "L-shaped" shopping mall ("A" on Figure 1) providing 26,000 to 30,000 square feet of shopping space with an adjacent parking area. The project will extend along the south side of Huron Walk, the town's principal street and will include a supermarket and eight other shops.

In Phase Two, first steps will be taken towards climate protection for pedestrians by construction of a covered extension to Hallmarket Square that will include a portion of Huron Walk. In this phase, some 20,000 additional footage of retail will be added. In subsequent phases, vacant lots on Huron Walk will be infilled with offices and retail establishments. Low-rise apartment buildings for the use of senior citizens and others who prefer apartment living will be constructed. These will be connected with downtown by climate-controlled walkways. Huron Walk will be covered for a distance of about four blocks and the protective cover will be extended to link up with the existing Hudson's Bay Company store. A new civic centre will be built, including a library and swimming pool, also a new hotel. And climate-controlled walkways, some elevated, will be extended to these facilities and carried further to the existing recreation centre.

Ontario government has decided to expand the existing towns in the Hemlo area rather than create any new town to accomodate the influx of miners. Marathon and to some extent White River , as well as Manitouwadge, will benefit by this decision. Noranda has used Manitouwadge as the base for its Hemlo area mining operations for some years and the company plans to maintain its commitment to the town by expanding its housing stock. Lac Minerals will also move some employees into Manitouwadge.

Many new inhabitants will be French speaking and Manitouwadge is the only town in the area with a Francophone school, Our Lady of Lourdes. High wages earned by miners give the town a high average level of income. Total spending so far on mines in the area is approaching \$700,000,000 and an additional \$100,000,000 is to be spent in the next year alone. The town appears to be assured of a prosperous future.

Manitouwadge already has a reputation as an energetic and ambitious town and has adopted the slogan, "Watch Manitouwadge-Hemlo Grow". Total population is expected to reach 6,000 by 1987. Present retail footage is approximately 70,000. Hallmarket Square Phase One will increase this to close to 100,000 sq. ft.

By retrofitting the existing downtown core with retail additions and climate-controlling covers for the principal street and climate-controlled pedestrian walkways fanning out in several directions, this Northern Ontario town will be carrying still further the northern design concepts of Hallmark-Hornepayne Town Centre and Fermont in Quebec.

Environics Research Group Ltd., in 210 interviews with town residents found that 95 percent favored improvement and enlargement of shopping and service facilities. Eighty-seven percent agreed more should be done to make the downtown area attractive. Eighty-two percent said they would like to do all their shopping in Manitouwadge, if possible, rather than having to travel to other communities.

Questioned about the need for climate protection, 58% found winters hard to take and 61% said they do not go downtown in winter unless absolutely necessary.

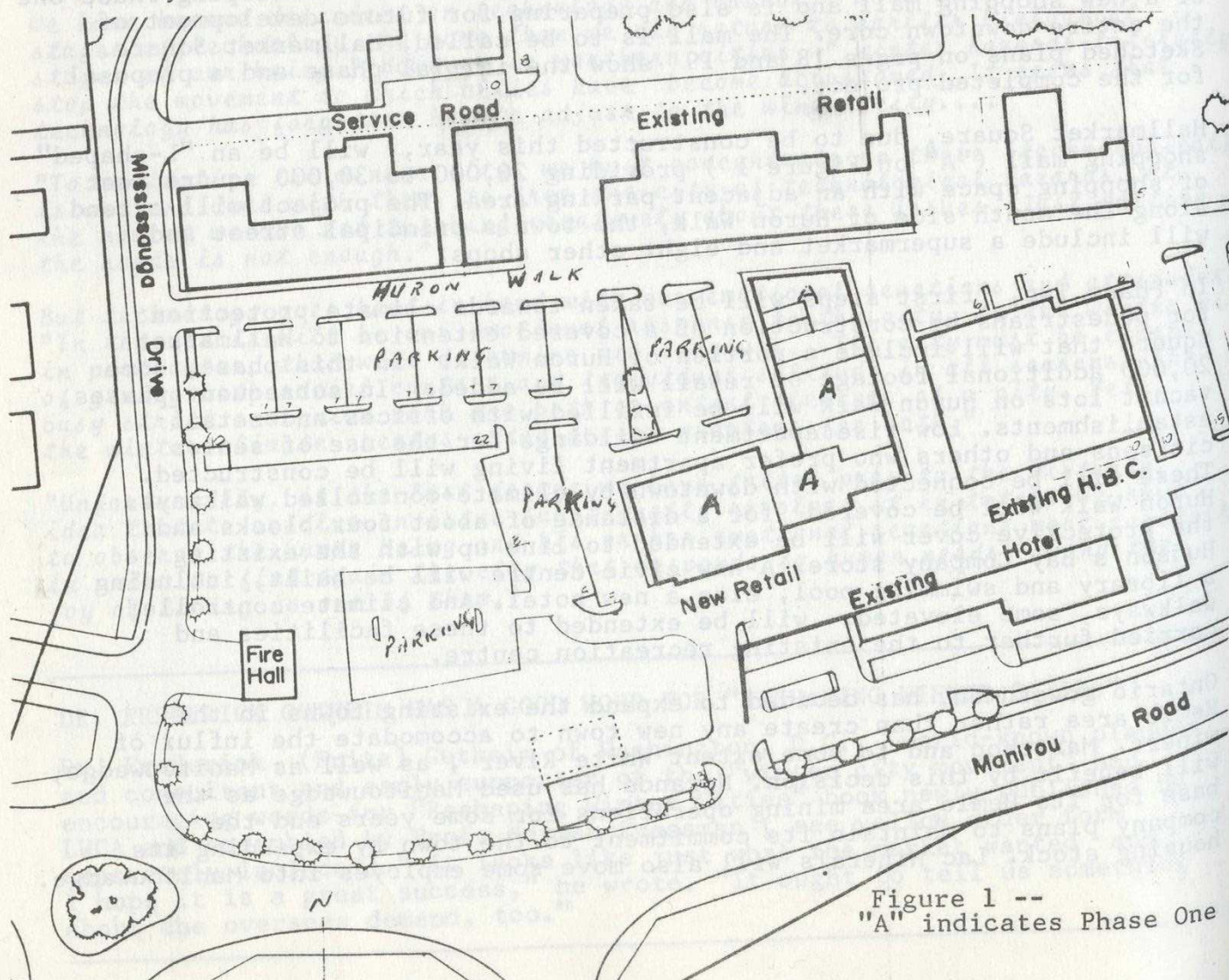
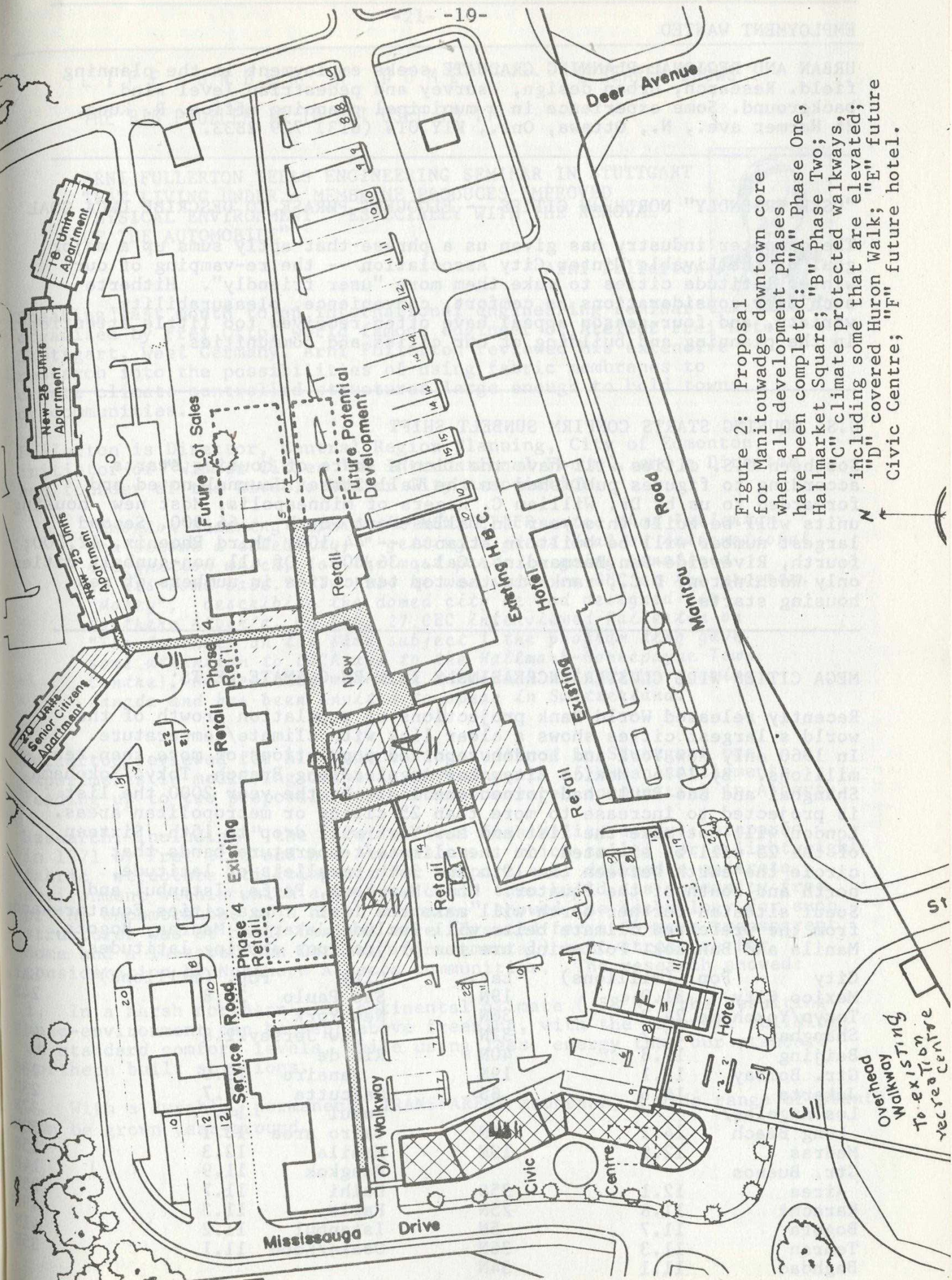


Figure 1 --
"A" indicates Phase One



EMPLOYMENT WANTED

URBAN AND REGIONAL PLANNING GRADUATE seeks employment in the planning field. Research, urban design, survey and pedestrian level wind background. Some experience in a municipal planning office. R. Kung, 26 Harmer ave., N., Ottawa, Ont., K1Y 0T4 (613) 729 2833.

"USER FRIENDLY" NORTHERN CITIES -- ELOQUENT PHRASE TO DESCRIBE LWCA GOAL

The computer industry has given us a phrase that aptly sums up a major goal of the Livable Winter City Association -- the re-vamping of our winter latitude cities to make them more "user friendly". Hitherto such user considerations as comfort, convenience, pleasurable, variety, and four-season appeal have often received too little attention in the planning and building of our cities and communities.

U.S. HOUSING STARTS CONFIRM SUNBELT SHIFT

Southern U.S. cities will have the lion's share of housing starts according to figures published in the Wall Street Journal, noted and forwarded to us by Dr. William C. Rogers of Minneapolis. Most new housing units will be built this year in Dallas-Fort Worth -- 66,900. Second largest number will be built in Atlanta -- 44,100; third Phoenix, 42,500; fourth, Riverside-San Bernardino, Cal., 36,000. Of all non-sunbelt cities only Washington, D.C., ranks in the top ten cities in numbers of new housing starts.

MEGA CITIES WILL CLUSTER INCREASINGLY IN WARM CLIMATE BELTS

Recently released World Bank projections of population growth of the world's largest cities shows a clear link with climate/temperature. In 1960 only New York and London reported populations of more than ten millions. By 1976 Mexico City, Los Angeles/Long Beach, Tokyo/Yokohama, Shanghai and Sao Paulo had joined the list. By the year 2000 the list is projected to increase to more than 25 cities or metropolitan areas. London will not make the list and New York will drop to 15th. Sixteen of the 25 will be situated in the climate/temperature bands that circle the earth between the 19th and 36th parallels of latitude, north and south of the Equator. Only New York, Paris, Istanbul and Soeul situated further north will make the list. Mega cities Equator-wards from the preferred climate belts will include Jakarta, Madras, Bogota, Manila and Bangkok. Following are the projections showing latitudes:

City	Pop. (millions)	Lat.	City	Pop. (millions)	Lat.
Mexico City	31.0	19N.	Sao Paulo	25.8	24S
Tokyo/Yokohama	24.2	36N	New York		41N
Shanghai	22.7	32N	New Jersey	22.8	
Beijing	19.8	40N	Rio de		23S
Gtr. Bombay	17.1	19N	Janeiro	19.0	23N
Jakarta	16.6	6S	Calcutta	16.7	37N
Los Angeles/			Soeul	14.2	30N
Long Beach	14.2	34N	Cairo area	13.1	15N
Madras	12.9	13N	Manila	12.3	14N
Gtr. Buenos			Bangkok	11.9	28N
Aires	12.1	35S	Delhi	11.7	49N
Karachi	11.8	25N	Paris	11.3	41N
Bogota	11.7	5N	Istanbul	11.2	35N
Tehran	11.3	36N	Osaka/Kobe	11.1	
Baghdad	11.1	34N			

L I F E U N D E R A D O M E ---- R E S E A R C H S H O W S

THE BIG PROBLEM IS TO GET USED TO IT

ARNI FULLERTON TELLS ENGINEERING SEMINAR IN STUTTGART THAT LIVING UNDER A MEMBRANE PRODUCES IMPROVED PHYSICAL ENVIRONMENT " ESPECIALLY WITH THE REMOVAL OF THE AUTOMOBILE"

Arni Fullerton



Speaking last month to an international engineering seminar organized by Frei Otto, world famous engineer of Atelier Frei Otto, Stuttgart, West Germany, Arni Fullerton reviewed his extensive research into the possibilities of using fabric membranes to create climate-controlled structures large enough to hold towns or communities.

Fullerton is Director, Central Region Planning, City of Edmonton, initiator of "Winter Cities '86 International Forum", and a Director and founder of the Livable Winter City Association.

Edmonton Planning Department NEWSLETTER notes that Fullerton has become a celebrity, " getting a great deal of international recognition which, for the most part, is going unnoticed at his home base." In 1984 he was shown on BBC on the program, "Money", describing the domed city he had designed for Northern Alberta. On Feb. 27 CBC interviewed Fullerton on "The Journal" on the same subject (the program also gave some attention to LWCA and to the Hallmark-Hornepayne Town Centre). He recently met with a Swedish delegation touring Canada and has been invited to speak in Switzerland.

Fullerton reviewed for his engineering audience in Stuttgart past experiments in modifying climatic environments of human settlements leading up to two proposals for membrane covered communities in Alberta.

Research, including " the first serious feasibility study...prepared in 1971 by Frei Otto and his Associates... which called for a lightweight fabric structure utilizing air for support and defined a moderate environment within which a society could then build its community free of the encumbrances of a harsh climate." showed the technology for such structures was at hand. Designs were advanced for a 35-acre transparent dome and a 14-acre "Sun Catcher" (incremental) tent structure for consideration by Northern Alberta communities. The research showed:

- 1, In a harsh northern mid-continental climate (58°N.) the resulting meso-environment can be kept above freezing, with the internal buildings at standard comfort levels, while using less energy than our standard northern built solutions.
- 2, With a durable, permanent, TRANSPARENT membrane, a wide range of plants can be grown year-around.

3, Although there will be additional costs associated with the initial prototypes, the total cost/value is comparable with our normal northern solutions which have been leapfrogged from more temperate zones.

4, Perennial problems of the weather, insects and dust are resolved.

5, The interior architecture can be more simply and quickly built, requires less maintenance and consequently has a longer lifetime.

But, said Fullerton, "our overwhelming remaining concerns focussed around social, psychological and physiological implications. How would it affect people to live in climate modifiers?"

In his 1981 feasibility study, Fullerton found, "the physiological aspects were easier to deal with, as light spectrum, air quality, acoustics and ionization levels, amongst others, were all carefully evaluated. In most cases we could demonstrate a pronounced improvement, especially with the removal of the automobile.

"Once we discovered a usable transparent skin material, many of the perceptual problems we envisaged disappeared. The second breakthrough in thinking came with the discovery that a sufficiently large size creates a "free field" acoustically and indeed experientially."

More effort was needed to research and evaluate problems in getting people to adapt to living under a large climate modifier. However, "inner city rehabilitation programs and social-community experiments such as FindHorne, in Northern Scotland, and LindsFarne in Colorado" show that a climate modifier can become an ideal camp environment for new homesteaders, "who can then begin one of the most humanely rewarding processes -- the creation (building) of a community."

Fullerton has continued his research with a proposal to "use these now-defined 'Meta structures' in retrofitting and winterizing part of an existing city. Gossamer Arcadia is a proposal to enclose an existing city street, while embracing the rooftops of existing and proposed buildings, with a 20-acre membrane structure. The idea is to create, in downtown Edmonton, a large moderated climate in which urban social activities can take place year around.

"Its centre piece will be an indoor park under and around which we propose a science theme park focussing on biological systems. This central piece will integrate, in one interconnected complex, a mixed-use urban centre involving shopping, offices and high density residential...

"Such a structure must adapt to an existing urban context. To accomodate this, we are establishing a city-led Development Corporation in which all land owners will assume an equity participation role.

"It is perhaps interesting to compare this concept...to the world's largest shopping centre now in its final stages of construction on the western edge of Edmonton (West Edmonton Mall). It is a two-level mega structure (with a single owner) within which the various (600) shops are leased by franchised operators....

Included is a large network of public places, walkways, skating rinks, and a carnival fantasy land, that are climate controlled to a constant temperature and operated under the control of the shopping centre owner.

Conversely, the attempt in Gossamer Arcadia is to allow individual ownership, to moderate the climate rather than control it at a steady temperature, and to retain the public 24 hours a day use of the street.

Fullerton told his audience he has embarked on a research and development process leading towards a demonstration self-sustaining Meso (middle scale) environment identified as Pueblo Polaris Two, that in its ultimate form could accomodate a population of 30,000 people. " It could be a focal project for Canada's first National Exposition projected for 1995."

The aim is to attempt to create " an environment that works with Nature so as to require no external source of energy other than that available on site; that provides its own food and generates its own income as a demonstration project. Our targeted site is a municipally owned 500-acre downtown airport which is in the proeces of becoming obsolete."

Recently we have begun to extend the roof. " ...outdoor corridors have become hallways, shopping streets have become interior malls, courtyards are now atriums and city centres have become integrated mega-structures." These structures have " internalized our environment, sacrificing contact with Nature.....With the advent of light weight technologies, combining cable nets and transparent membranes, we are now able to ...break out of the 'corner' we are in with our structured environments...

"It is now possible to create a living, breathing, large-scaled MESO-ENVIRONMENT (with its own natural ecology) sufficiently large to allow reasonable choice and freedom in the creation of individual habitat..."

"WE'RE BEGINNING TO UNDERSTAND HOW LIFE HARVESTS SUNSHINE"

Volume and strength of sunlight (or lack of it) is accepted to be the root "difference" in our northern climate, and two Canadian scientists are among world leaders in researching the phenomenon of the relationship between sunlight and life. They are Prof. Roger Leblanc, Directeur de Le Centre de Recherche en Photobiophysique at Université du Québec à Trois Rivières, Québec, who is quoted in the above headline, and Prof. James Bolton of the Photochemistry Unit of University of Western Ontario, London, Ont. Studies by scientific teams headed by these men are described in a recent issue of "Science Dimension", published by National Research Council.

Professors Leblanc and Bolton are exploring the electronic and chemical processes that interact in the leaves of plants in photosynthesis by which plants create glucose sugar , the fuel that ultimately runs all living things in the biosphere. Apart from the work of Dr. Michael Persinger of Laurentian University (Sudbury) Department of Psychiatry, NEWSLETTER has not learned of any Canadian medical or biophysical scientists who are actively researching the effect of sunlight (or lack of it) on human minds and bodies. One might expect this to be an important area for Canadian research considering the impact of climate on Canadians.

The Trois Rivières and London scientific teams come at photosynthesis from different angles and their efforts supplement rather than compete with one another. The force behind life has been defined as " a little electric current kept up by sunshine" . Prof. Leblanc and his group are studying the "faster than light" reaction when plants capture and transfer photons contained in sunbeams. Prof. Bolton's team is exploring the electrical currents that result. Water and atmospheric gases are utilized in the process. The Canadians, working with scientists in various other countries, are slowly beginning, they feel, to unlock the magic of life in plants. NEWSLETTER readers interested in more detailed description of the research can find it in "Science Dimension", Vol. 16 No. 6, pp.20 to 28.

COMING EVENTS OF INTEREST -- PLANNING LIBRARIANS' ANNUAL CONFERENCE

Council of Planning Librarians (CPL) Annual Conference will be held in Montreal's Queen Elizabeth Hotel April 19 to 22 in conjunction with the Annual Conference of the American Planning Association.

Highlights include theme panels on "Researching the Livable Winter City" and "Resources and Networking in Heritage Preservation" with librarians, researchers and specialists from the U.S. and Canada.

There will be a contributed papers session, a walking tour of Montreal, annual business meeting of the CPL, plus an evening reception for conference registrants and the local library community.

Join your colleagues from the U.S. and Canada to discuss the latest issues in urban affairs and library administration.

For registration information, contact: Robert Dameron, Council of Planning Librarians, 1313 E 60th st., Chicago, Ill., 60637, (312) 947-2007/8 or Coreen Douglas, City of Edmonton Planning Library, 11th floor, 10020 - 101A av., Edmonton, Alta., T5J 3G2 (403) 428-2665.

INTA CONFERENCE -- "NEW PARTNERSHIPS IN URBAN DEVELOPMENT"

International New Towns Association (INTA AIVN) will hold its 9th conference at the Albany Hotel, Glasgow, Scotland, Sept. 8 to 14. Representatives are expected to attend from 40 countries but attendance is limited to 400. The format will consist of case studies each morning and workshops each afternoon with a number of study tours interspersed. Early registration before July 1. Contact Jack Zapasnik, Secretary-General, INTA-AIVN, Wassenaarseweg 39, NL - 2596 CG Den Haag, The Netherlands.

INSTITUTE OF URBAN STUDIES, UNIVERSITY OF WINNIPEG, IS FOCUS OF ACTIVITIES

A sister NEWSLETTER, produced by Institute of Urban Studies, University of Winnipeg, reports a wide range of activities carried on by that Institute under the energetic leadership of Director Alan F. Artibise.

A major conference: "The Canadian Urban Experience -- Past and Present" is to be held at the Institute Aug. 14 to 17. Sessions will be held at University of Winnipeg and the Fort Garry Hotel. General subjects to be dealt with cover a wide range: Housing, Community development, Planning, Urban government, the international scene, the role of women in urban affairs, and other areas.

"Public Universities in Cities: Challenges and Opportunities in Canada and the United States", was the theme of a conference at mid-March at University of South Florida that grew out of contacts made a year ago between the Winnipeg Institute and the U.S. Division of Urban Affairs of the National Association of State Universities and Land Grant Colleges. Among subjects discussed were the relationships between universities and cities in which they are located. One title: "The University and the City: A New Cultural Catalyst?" Attendance was restricted to 75 delegates from each country. It is anticipated a second conference will be held in Canada in 1986.

Information on any of the above items or the work of the Institute of Urban Studies may be obtained by writing to the Institute, c/o University of Winnipeg, 515 Portage aVE., Winnipeg, Man., R3B 2E9.
