

# **Selected Sources on Northern Housing and Related Infrastructure: An Annotated Bibliography**

**Bibliographica No. 1**

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**by Robert Robson  
1989**

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**The Institute of Urban Studies**





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**SELECTED SOURCES ON NORTHERN HOUSING AND RELATED INFRASTRUCTURE: AN ANNOTATED BIBLIOGRAPHY**

**Bibliographica No. 1**

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## Selected Sources on Northern Housing and Related Infrastructure: An Annotated Bibliography

### A

Adams, J.Q. "Settlements of the Northeastern Canadian Arctic." *Geographical Review* 31 (January 1941).

In a brief but informative paper, Adams documents the survival of three Arctic settlements: Craig Harbour, Arctic Bay and Pangnirtung. In suggesting that the three communities are "representative of various types of white settlements in the eastern Canadian Arctic," the author provides an interesting contrast of purpose. Craig Harbour which in 1941 was Canada's northern most settlement was created for reasons of sovereignty while Arctic Bay is a function of the fur trade and Pangnirtung is described as a regional service centre. Although none of the three settlements are large in size, Adams devotes some effort to the discussion of community infrastructure. His conclusions indicate that only Pangnirtung shows signs of stability and hence persistence.

Alberta. Northern Alberta Development Council. *Challenge North*. Proceedings of the Challenge North Conference, Edmonton, Alberta, October 1985.

The third in a series of conferences sponsored by the Northern Alberta Development Council, this particular session was intended to address "the future for economic growth in northern Alberta." Attracting approximately 280 participants, the three day event discussed issues ranging in scope from the decentralization of government services to the changing demographic problems of the North. Two concurrent sessions most clearly articulated the problems of the northern community. Detailing the issues of economic development or survival, both sessions four and five underscored the central place of local initiative in the operation of community oriented projects.

Alberta. Municipal Affairs, *Elizabeth Métis Settlement Land Use Inventory -- Planning for the Future*, Edmonton, 1985.

Intended as a guide for future planning exercises in the Elizabeth Métis Settlement, this provincial government report inventories the "major physical and human resources" of the community. Included here are the approximately 72 housing units found within the community. Tracing the history of the housing process the study not only documents the delivery programs implemented in the community but it also gives a physical description of the portfolio. Of particular interest to the discussion of housing delivery was the role played by the local Waskayigin Society.

Allen, Catherine. "The Road to Responsible Homeownership," *Habitat* 24, 4 (1981).

Mostly a descriptive account of the Home Counselling Program operated through CMHC's Rural and Native Housing Program, this report offers an interesting overview of the much needed counselling service. Introduced in 1980, the Home Counselling Program was intended to solve many of the life-skill home maintenance urban living problems encountered by the RNH client group. The services provided by the program ranged from pre-approval budgeting advice through to post-occupancy monitoring. Although the Home Counselling Program has indeed helped to alleviate some of the more pressing shortcomings of the RNH program, it can only begin to touch on the "deep-rooted social and economic problems" encountered by many of the target communities.

Archer, H. "A Classification and Definition of Single Enterprise Communities." M.A. Thesis, University of Manitoba, 1969.

Relying heavily on the findings of E.C. Ulman and M. Dacey as well as J.W. Maxwell, Archer develops what appears to be the most comprehensive method of classifying Canadian single industry communities. The "dominant function" which is defined by Archer as "the function" which employs the highest percentage of the basic labour force," is applied by the author in an effort to isolate those

communities that are dependent upon the activity of a single industry.

Archer, J. "A History of Housing Standards." *Habitat* 24, 4 (1981).

John Archer, project manager in the Development Evaluation and Advisory Services Division of CMHC discusses the central place of housing standards in the formulation of CMHC housing policy. In doing so he clearly articulates three major objectives: to protect public health and safety; to protect CMHC from financial risk; and to promote a "model of the residential environment." In further suggesting that CMHC housing standards "are recognized as being among the best in the world," Archer acknowledges the central place of a model building code.

Archer, P. *Rural and Native Housing, 1984 Client Survey, Summary Report*, Ottawa: CMHC, 1985.

This CMHC commissioned report was undertaken in an effort to accurately gauge resident satisfaction with the Section 40 demonstration units. Forty-seven interviews were conducted which, including pre-testing, occurred in Manitoba, Ontario, Northwest Territories, Quebec and New Brunswick. The survey which was based on the British Housing Appraisal Kit attempted to determine both the design and facility appropriateness of the units. In general, the conclusions drawn indicate that most of the "respondents were disinterested in the exterior appearance" of the house, that there were almost universal problems with exterior doors, that the lack of storage space was an ongoing complaint and that condensation was an issue in most households. Perhaps most important, however, was the conclusion that resident involvement in the design and construction process is "positively correlated with satisfaction" of the dwelling.

Armitage, A. and M. Audain. *Housing Requirements: A Review of Recent Canadian Research*. Ottawa: The Canadian Council on Social Development, 1972.

In describing the circumstances of contemporary housing policy, Armitage and Audain recommend that "considerably more energy be devoted" to the development of "realistic and socially relevant housing requirement estimates." In large part, they isolate need assessment as the most fundamental aspect of a workable housing policy. In an effort to alleviate what they describe as a major shortcoming, Armitage and Audain develop a need assessment model consisting of household surveys and housing analysis.

Armstrong, T.E. *Russian Settlements in the North*. Cambridge: Cambridge University Press, 1965.

Documenting problems such as permafrost construction, native sovereignty, resource development and transportation, Armstrong develops a strong sense of the circumpolar North. Although the solutions are slightly different from country to country, the issues have the same northern complexion. The underdeveloped quality of the northern economy, however, is the central focus of the study. While the reindeer industry or the northern fisheries provide interesting reading, most pertinent to the discussion of northern housing is the discussion of innovative building techniques. This is particularly true in light of the Institute of Permafrost Studies' experimentation with subsoil ventilation.

## B

Bailey, R.W. "Housing for Indians and Métis in Northern Saskatchewan." In *Canadian Housing: A Reader*, ed. K.S. Sayegh. Waterloo: University of Waterloo, 1972.

Bailey's study of Northern Saskatchewan is an assessment of the federal-provincial two year, Métis and enfranchised Indians of low income housing program. The agreement which was entered into in 1965 called for the construction of 100 units over a two year period. Initially created as a "co-operative" venture, by the spring of 1966, the provincial government had assumed the administrative responsibilities of the program.

With housing constructed in such remote areas as La Ronge or Ile-a-la-Cross, by 1967 government authorities were already suggesting that "adequate housing is providing the incentive for them to improve their way of life."

**Bartsch, W.** *Exit With Excellence*. Atikokan: Quetico Press, 1983.

Prepared in conjunction with the Caland Mine closure at Atikokan Ontario in 1978-1979, this study offers an insightful look at the wind-down process. In suggesting that the parent company, the Inland Steel Company, sought to "exit with excellence," the report documents the consultative process of the "Management Grid" as incorporated by the mining company. The final chapter or the so-called "Terminal Phase," witnessed the company's community orientation. Terminating rental agreements, extending public health commitments and generally attempting to provide for the wellbeing of the community, Inland Steel offered a good example of responsible management.

**Bates, P.T.** "An Analysis of Housing Policies in Resource Towns." M.E. Design thesis, University of Calgary, 1983.

Drawing heavily on a resource community study that was undertaken on behalf of Canstar Oil Sands Ltd., Bates provides an overview of the housing problems inherent in the resource sector. Identifying housing as a major component of community satisfaction and hence community stability, the author calls for greater government participation in the housing supply process. Specifically detailing the circumstances of Kitimat, Elkford, Sparwood, Fort McMurray and Leaf Rapids, Bates also describes five distinct approaches to the housing conundrum. In this vein for example, he contrasts the activity of the Leaf Rapids Development Corporation with the Alberta Housing Corporation in Fort McMurray, to suggest that even when government does take an active role, it often misinterprets housing needs.

**Beauchamp, K.** *Land Management in the Canadian North*. Ottawa: Supply and Services, 1975.

Beauchamp's study is a legal or institutional appraisal of land management north of 60 degrees north latitude. In comparing the constitutional structure of the Yukon and the Northwest Territories to the colonial era, Beauchamp clearly places the federal government at the centre of the management process. While this is indeed true, both territories have been granted "limited" power of land administration. This mainly applies to land "in and around settled communities" although some authority over unorganized territory is provided through a series of land ordinances. Nonetheless both territorial governments assume most of the responsibility for zoning, the enactment of building codes and the regulation of public health in the urban environment.

**Bechtel, R.B. and C.B. Ledbetter.** *Post Occupancy Evaluation of a Planned Community in Arctic Canada*. Special Report 80-6. Hanover, New Hampshire: United States Army Cold Regions Research and Engineering, February 1980.

This study is a post occupancy evaluation of the small mining community of Nanisivik, located high in the Canadian Arctic. Analyzing the "architectural and community design of a human settlement in terms of the settlement's habitability," the authors conclude that Nanisivik is a relatively stable community when compared to other isolated cold region communities. In suggesting that the functional orientation of the settlement is the key to Nanisivik's success, Bechtel and Ledbetter document the development of a well integrated community. In terms of housing stock, this includes a reasonable mix of single and multi-family dwellings and a variety of housing forms.

**Bent, Colin.** "Mobility and Flexibility in Northern Communities." *Environments* 15, 2 (1983).

Bent's study of the northern community phenomenon is a very strong statement for the creation of non-permanent community facilities. In arguing that the traditional approach to community development has emphasized the need to "meet and defeat" climatic influence, Bent calls for a greater flexibility in townsite design. Indeed, in recognition of northern "constraints," the author

proposes as a partial solution to the problems of northern development the "transient community." Citing examples such as the Polaris Project on Little Cornwallis Island or Nanisivik, Bent advocates the use of Atco structures or temporary service modules in an effort to provide adequate housing facilities in the North.

**Bernhardt, A.D.** *Building Tomorrow: The Mobile/Manufactured Housing Industry*. Cambridge: MIT Press, 1980.

Written in conjunction with the work of Project Mobile Home Industry (PMHI) at the Massachusetts Institute of Technology, this study is both a detailed analysis of the mobile home industry and a policy statement. Dividing the industry into three functional systems -- manufacturing, distribution and park development and operation, the author provides a well rounded interpretation of the mobile home phenomenon. Considering factors such as municipal taxation, assembly techniques and park design, Bernhardt offers positive commentary on the future of the industry. Of particular interest is the discussion of delivery, construction and site installation.

**Beveridge, J.** "The Rabbit Lake Commuting Operation." Paper presented at the Conference of Commuting and Northern Development, Saskatoon, Saskatchewan, 1979.

Using the Rabbit Lake, Saskatchewan case study as the foundation of his analysis, Beveridge attempts to assess the impact of the fly-in--fly-out camp routine on native employment. Recognizing that the native population "for the most part participated on a short-term, intermittent basis" in the resource exploitation process, the author argues that the commuting rotation system allowed the native work-force to become more actively involved in the industrial enterprise. While stressing the "family" orientation of the Rabbit Lake Camp, Beveridge maintains that the camaraderie of the workplace precluded the development of racial tension.

**Bird, B.C.** *Problems of Economic Development on Manitoba Indian Reserves*. Winnipeg: Social Planning Council of Winnipeg, 1984.

In arguing that government policy has been based on the "premise that it is cheaper to run a community on welfare than create jobs," Bird presents a fairly critical assessment of the government native programs. Specifically isolating the reserves of Sioux Valley and Norway House, the author documents the self-perpetuating quality of the social assistance programs. Designed to teach what the author cites as "white values," the social welfare initiative so evident in government policy has not only reinforced native dependency but it has undermined traditional native lifestyles.

**Bissett, D.** *The Lower Mackenzie Region, An Area Economic Survey*. Part I. A report prepared for the Industrial Division, Department of Indian Affairs and Northern Development. Ottawa, 1967.

In suggesting that the economy of the Lower Mackenzie Region is "unsatisfactory in terms of productivity," Bissett presents a most detailed interpretation of the districts' economy. Describing activities as varied as whaling to guiding, the author documents the plight of the region's economy. Bissett also discusses the more localized economies of the specific settlements of Inuvik, Aklavik, Fort McPherson, Arctic Red River, Reindeer Station and Tuktoyaktuk. Included here is an appraisal of housing and housing type.

**Black, D.M.** *The Public Housing Program: A Preliminary Analysis*. Ottawa: Canada Mortgage and Housing Corporation, 1977.

Focusing specifically on "public housing projects constructed or acquired and operated under Sections 40 and 43 of the *National Housing Act*," Black provides a valuable overview of the public housing process in Canada. Indeed, in many respects, Black's study is one of the formative study's of the public housing experience. Discussing issues that range in scope from shelter allowance to management techniques, the author presents an objective appraisal of the public housing phenomenon. In general, however, Black's conclusions



paint a bleak picture of the future public housing initiative.

**Bone, R.M. and M.B. Green.** "Housing Assistance and Maintenance for the Métis in Northern Saskatchewan." *Canadian Public Policy* IX (December 1983).

In a good overview of the joint federal-provincial public housing program, Bone and Green provide a much needed interpretation of Métis housing conditions in northern Saskatchewan. Arguing that inadequate housing facilities are directly related to low family incomes, the authors call for the creation of a "subsidized housing maintenance program." Although Bone and Green suggest that this type of initiative would, in the short run, be a costly endeavour, in the long term they conclude that not only would it minimize costs but also "ensure an adequate standard of housing."

**Bourne, L.S. and J.R. Hitchcock, eds.** *Urban Housing Market: Recent Directions in Research and Policy.* Proceedings of a Conference held at the University of Toronto, October 1977. Toronto: University of Toronto Press, 1978.

In suggesting that housing and the provision of adequate housing is a "persistent problem" in Canada, the University of Toronto's Centre for Urban and Community Studies organized the Conference from which this publication emanated. Addressing the so-called "recent developments in research and policy on urban housing markets," the twelve papers included in this volume discuss topics ranging in scope from "Housing Demand and Household Wealth," to the "Price Elasticity of Supply of Housing Services." Of particular interest are the two papers of the "Social Policy" session which provide valuable insight into policy formulation. Albert Rose, for example, in tracing the theme of a decentralized housing policy, argues that the government initiative was a response to changing economic circumstances.

**Bowles, R.T.** *Little Communities and Big Industry.* Toronto: Butterworths, 1982.

A collection of papers that deal in one way or another with the phenomenon of the single industry town, this work is a compendium of previously published studies. Ranging in scope from A.A. den Otter's "Social Life of a Mining Community" to John Bradbury's "Instant Resource Towns Policy in British Columbia," Bowles has brought together a good cross-section of literature. The editor's introduction offers a series of definitions and methodological approaches to small town analysis that could be useful to further study.

**Bowles, R.T.** *Social Impact Assessment in Small Canadian Communities.* Toronto: Butterworths, 1981.

Through a process of "social impact assessment" (SIA), Bowles attempts to "facilitate an understanding of the processes by which large externally-controlled resource industries affect social well-being in small communities in Canada's northern hinterland." Providing both an extensive literature review as well as a number of useful methods for measuring social interaction, Bowles' study offers a sociological appraisal of the single industry community phenomenon. In suggesting that "economic impacts intertwine with social impacts" Bowles' conclusions call for greater diversification of economic activities in an effort to increase "social vitality."

**Bradbury, J.H.** "Towards an Alternative Theory of Resource Based Town Development in Canada." *Economic Geography* 55 (April 1979).

In a sweeping evaluation of the process of resource exploitation, Bradbury demonstrates "both the process and the context of capital accumulation" as it relates to resource production. Emphasizing the theme of the staple trap, the author suggests that the individual resource town is very much a part of a global economy in which it is dependant on decisions made elsewhere. Bradbury concludes with a call for a "holistic" approach to the analysis of the resource town.

Bradbury, J.H. "Declining Single-Industry Communities in Quebec-Labrador." *Journal of Canadian Studies* 19 (Fall 1984).

Although Bradbury's study is primarily concerned with communities of the Quebec-Labrador iron-ore trough, his conclusions are generally applicable to most mining communities. This is particularly true of housing, where as suggested by the author, "the loss of houses and housing equity parallels and exacerbates the social impact of job loss in single-industry communities." Bradbury's evidence suggests that during periods of economic decline "housing becomes a negative factor to social and community stability."

Bradbury, J.H. and I. St-Martin. "Winding Down in a Quebec Mining Town: A Case Study of Schefferville." *Canadian Geographer* 17, 2 (1983).

Although Bradbury and Martin deal specifically with the community of Schefferville, Quebec in their discussion of company closures, they offer valuable insight into the variety of housing problems associated with the wind-down of a single enterprise industrial operation. The housing policy pursued by the Iron Ore Company of Canada was typical of the one industry town. Over a thirty year period, Schefferville's housing stock passed from being completely company owned to partially company subsidized to eventually owner occupied. By 1980 with 45 percent of the houses in Schefferville empty and with the company still divesting itself of community assets, the financial burden of the community rested squarely on the shoulders of the home-owner.

Bradbury, J. and J. Wolfe, eds. *Recession Planning and Socio-Economic Change in the Quebec-Labrador Iron-Mining Region*. McGill Subarctic Research Paper No. 38. Montreal: Centre for Northern Studies and Research, McGill University, 1983.

Published in large part as a response to the Iron Ore Company of Canada's plant closure at Schefferville, this volume provides valuable insight into the "wind-down" process. Although a study of the Quebec-Labrador mining region, the findings of the various authors are pertinent to all single

industry towns. This is particularly true of housing policy which is described by one author as "one of the main areas of concern in a crisis period." Suggested housing programs designed to alleviate the crisis include: mortgage relief; rental only housing tenure; mobile housing; and the implementation of buy-back clauses.

Brown, E.C. "A Small Town Plans." *Community Planning Review* XV (Fall 1965).

The community of Hinton, Alberta which Brown describes as a "dual town," is a good example of comprehensive planning gone astray. Redesigned in 1955 as a result of the activity of the North Western Pulp and Paper Company, the contemporary community consists of "new" and "old" Hinton. Through the duplication of services, the segregation of housing and other apparent problems, it is obvious that the Town and Rural Planning Department of the provincial government miscalculated community needs.

Bruce, J. "Arctic Housing." *North* XVI (January/February 1969).

Bruce provides a good descriptive account of the federal government's "crash housing program for the Northwest Territories." Begun in 1966, the twelve million dollar project had the long range goal of providing "accommodations for all the territory's Eskimo families." Initially using 700 square feet, prefabricated housing units, the plan was intended to function as a low-rental program, based on family income. This was eventually revised, allowing the Inuit population to purchase the houses if they so desired. Local administrators such as the housing co-operative at Pelly Bay, Igloodik and Whale Cove provided the needed community flavour and although there were problems with the program, the co-operative helped to keep it viable.

Buck, W.K. and J.F. Henderson. "The Role of Mineral Resources in the Development and Colonization of Northern Canada." *Canadian Population and Northern Colonization*, ed. V. Bladen. Symposium

presented to the Royal Society of Canada. Toronto: University of Toronto Press, 1962.

In a broad geographical study, Buck and Henderson view the resource town in terms of Canada's main geological regions. Concentrating specifically on mineral production, the authors define five regions of development. Within this context, they discuss the growth of communities such as Kirkland Lake, Flin Flon and Noranda. In many respects the linear expansion of the resource frontier can be described as being directly related to the geological formations as detailed by Buck and Henderson.

**Buchanan, E.** "Inuit Housing: Problems and Perspectives," *Inuit Today* 6, 5 (1977).

Enid Buchanan, housing liaison officer with the Inuit Tapirisat of Canada, in this discussion of Inuit housing problems, offers a general summary of the 1977 Baffin Region Inuit Housing Association's Workshop. Held in Frobisher Bay, the workshop provided delegates with the opportunity to present housing concerns and discuss possible policy solutions. In general, the workshop participants identified four main concerns: the 25 percent rental scale which was described as being "too high;" the quality of northern housing which was determined to be "unsatisfactory;" maintenance programs were seen as "inadequate," and; the lack of local control over the housing process. Further arguing that northern housing conditions are "unique and require solutions which are specifically oriented to Arctic conditions," the delegates proposed that the decision making process should be "placed in the hands of the people to be housed."

**Buckley, H., J.E.M. Kew, and J.B. Hawley.** *The Indians and Métis of Northern Saskatchewan*. A report on Economic and Social Development. Saskatoon: Centre for Community Studies, University of Saskatchewan, 1963.

In a thorough discussion of northern development, Buckley *et al.* clearly describe the circumstances of Saskatchewan's native and Métis population. Detailing the "disruptive influence of the new settlement pattern" on the traditional way of life, the authors offer a number of community oriented

solutions or recommendations. Ranging in scope from native co-operatives to a series of training programs, the report calls for the greater development of the "potential of people." Recognizing that "there is a serious shortage of housing and what housing there is, is grossly inadequate," the authors argue that housing needs are central to improved living conditions. Whether in the way of specific programs like the Pinehouse Project or simply through government initiative, the study calls for increased housing activity.

**Bucksar, R.G.** "The Squatter on the Resource Frontier: A Threat to Regional and Community Development." *Proceedings of the Canadian Association of Geographers* 14 (1970).

Bucksar in his study of the squatter, identifies and attempts to classify one of the major problems associated with the frontier community. Claiming that the squatter phenomenon is directly related to improper land-use controls, the author describes five categories of squatter. Ranging from the "insular squatter" to the "bush squatter," Bucksar classifies the squatter on the basis of behaviour.

**Bucovetsky, M.W.** "A Study of the Role of the Resource Industries in the Canadian Economy." Working Paper No. 7301. Toronto: Institute for the Quantitative Analysis of Social and Economic Policy, University of Toronto, June 1973.

Bucovetsky's study attempts to assess the place of Canada's resource industries in the country's overall economic structure. In an effort to determine resource dependency, the author develops an elaborate scheme of linkages. Based on both direct and indirect linkages Bucovetsky's conclusions indicate that the "multipliers" for the forestry industry are greater than those for the mineral industry. The author further suggests that the forestry industry could be "credited" with approximately 5-1/2 percent of total Canadian employment while mineral extraction ranks at only 4 percent.

**Burdett-Moulton Architects and Engineers (Iqaluit), Don Jossa and Associates (Yellowknife) and Wayne**

**Wilkinson (Whitehorse).** *Examples of Northern Construction Practices*, Part 2. A report prepared for Canada Mortgage and Housing Corporation, June 1986.

This report is a thorough examination of northern design and construction techniques. In describing the unique quality of northern building, the authors suggest that the construction industry in the North has been shaped by: transportation costs; the lack of an indigenous energy source; the cold climate and short building season; and labour costs and the lack of skilled local labour. Mostly a design or building oriented study, the report offers minute detail on such innovative features as Skookie's curtain wall, freezer panels and vapour retarders.

**Burke, J.** *Paper Tomahawks: From Red Tape to Red Power*. Winnipeg: Queenston House Publishing, Inc., 1976.

In what appears to be a subjective evaluation of the Department of Indian Affairs' on-reserve housing programs, Burke openly criticizes the federal government initiative. Arguing that government policy has been traditionally geared towards the assimilation of the native peoples, the author maintains that "progressive reservations would be an anathema to Ottawa's Indian policy." Clearly supporting the notion of self-government, Burke calls for the greater recognition of local responsibility. Included here are recommendations for local housing authorities, make work projects and the administration of government subsidy programs.

**Buse, G.** *Growth Communities of the North*. Edmonton: Boreal Institute for Northern Studies, University of Alberta, 1978.

This study, which was in large part funded by the Boreal Institute for Northern Studies at the University of Alberta, examines the social and economic characteristics of four northern communities. Focusing on Yellowknife, Whitehorse, Grande Prairie and Fort McMurray, the author suggests that the transformation from a single enterprise community to a more cosmopolitan regional centre, has brought the four towns into a more traditional

urban framework. In terms of housing, the transition witnessed a shift from primarily rental to owner-occupied dwellings, with a greater emphasis on long-term accommodation.

**Bushey, R.** "Native Settlements in Arctic Canada: A Decade of Change." *Habitat* 26, 1 (1983).

In a mostly negative appraisal of the "welfare-industrialization-employment policies" adopted by the federal government for the Canadian North, Bushey finds some consolation in housing policies. This is particularly true of the activity of the Northwest Territories Housing Corporation. Citing the 2,000 units that have been built in twenty-five native settlements and twenty other northern communities, Bushey, as manager of policy and planning for the N.W.T. Housing Corporation, applauds the role of the Corporation in improving living conditions. Nonetheless, the author remains firm in his call for the "dramatic reform" of social policy.

**Bushey, R., E. Bhajan and R. Stevenson.** *Task Force Report on Home-Ownership in the Mackenzie Valley*. Yellowknife: Northwest Territories Housing Corporation, 1977.

Commissioned by the Housing Corporation in December of 1976 to "review present housing programs" and "recommend areas of expansion or changes," this Task Force report offers a brief overview of Territorial Housing Programs. The recommendations on housing policy are primarily geared towards the expansion of existing programs, although the report does provide a new found basis for the dissemination of information. Of some significance, however, are the nineteen community profiles which detail a variety of housing conditions in the Mackenzie Valley.

## C

**Canada.** Canada Mortgage and Housing Corporation. *A Consultative Paper on Housing Renovation*. Ottawa, 1986.

Prepared in an effort to determine the future policy direction of the Residential Rehabilitation Assistance Program, CMHC clearly defines a central place for the renovation of existing housing stock in its overall housing program. Of particular importance is "the substandard rural housing stock." Indeed, in maintaining that "the percentage of the rural stock in need of major repair" is about twice the urban figure, CMHC attempts to redress the housing imbalance. Citing the lack of funding as the major cause, the report proposes three initiatives intended to solve the problems of rural rehabilitation; government insurance of renovation loans; government direct lending of renovation loans; and government insurance of landlord renovation loans.

**Canada.** Canada Mortgage and Housing Corporation. *Houses of the North: A Compilation by CMHC of Recently Built Homes in the Far North.* Ottawa, 1984.

This report, which is a descriptive account of northern housing design, was undertaken in an effort to provide for the continuing evolution of northern housing stock. By including a "good range of designs and construction techniques" in the text of the study, the report also provides a good overview of contemporary, northern housing. This is true not only of the "envelope" but also of the heating and ventilation systems which are described in some detail.

**Canada.** Canada Mortgage and Housing Corporation. *CMHC On-Reserve Housing Programs, Program Evaluation Report,* Ottawa, 1987.

Prepared in an effort to evaluate CMHC's role in the on-reserve housing program, this report was specifically designed to consider program rationale, objective achievements, individual program objectives, INAC program objectives, related program effects, program cost-effectiveness and alternative programs. Although the report indicates that housing conditions have improved for on-reserve residents, it argues that there continues "to be severe problems of crowding, poor physical housing conditions and lack of basic amenities." With a view to alleviating these problems, the final recommendations call for program re-orientation,

administrative changes and the greater co-ordination of the CMHC-INAC initiative.

**Canada.** Canada Mortgage and Housing Corporation. *Evaluation of CMHC On-Reserve Housing Programs,* Ottawa, 1986.

In what amounts to a most thorough evaluation of on-reserve housing programs, this internal report offers an insightful overview of contemporary RNH programs. Its findings which underscore both the positive and negative aspects of the initiative suggest that with "alternative organizational arrangements as well as program modifications" program effectiveness could be vastly improved. In general, however, much of the analysis is directly related to factors of increasing "cost-effectiveness." As a result many of the grass roots socio-cultural issues so important in the provision of native housing are either ignored or downplayed.

**Canada.** Canada Mortgage and Housing Corporation. *Housing Allowance: Policy and Program Issues,* Prepared by Forma Consulting, Ottawa, 1979.

In an effort to examine the "relative merits" of supply and demand subsidies in the housing process, this report offers an overview of programs intended to "improve purchasing power for housing." Through a comparison of European, British, American and Canadian models, the consultant's findings support the notion of a well established shelter or housing allowances program. Indeed, in arguing the case for the greater incorporation of housing allowance in the housing process, the authors call for the retooling of the legislative machinery to reflect the dynamics of "demand subsidies."

**Canada.** Canada Mortgage and Housing Corporation. *Housing a Nation: 40 Years of Achievement.* Ottawa: Canada Mortgage and Housing Corporation, 1986.

This volume, which was published as an anniversary edition, commemorates 40 years of CMHC activity. With the preface that the Corporation has been an "effective instrument of government social and economic policy," the collection of essays clearly

documents CMHC's more significant achievements. Prepared by distinguished CMHC personnel (including D.B. Mansur, Stewart Bates and George Anderson), and containing the personal accounts of both former and present day CMHC staff, this publication provides an insightful interpretation of the Corporation's history. Of particular interest is Robert Adamson's treatment of "social housing;" S.A. Gitterman's discussion of prefabrication; and George Anderson's interpretation of the "third sector."

**Canada.** Canada Mortgage and Housing Corporation. *Housing Issues in the 1980s and 1990s: Factors Which Will Affect Structural Adjustments in the Residential Construction Industry.* A Background Paper prepared for the 43rd National Conference/Exposition, Canadian Home Builders Association, Edmonton, February 1986.

Intended as a comprehensive "overview of the residential construction industry in Canada and its prospects over the next 15 years," this study was undertaken in a effort to facilitate industrial adjustment. In suggesting that the housing market is undergoing a series of "radical changes," this report recommends a number of practical modifications to the housing process. Including industrial diversification, the downsizing of housing projects, the revitalization of the home renovation industry and the increased regulation of land-use development, this study attempts to forge a new basis for the housing industry.

**Canada.** Canada Mortgage and Housing Corporation. *Report on Canada Mortgage and Housing Corporation.* Ottawa, 1979.

With the intention of determining a rational method of responding to the "housing needs of Canadians in the 1980s," this report provides what could be considered, the best overview of CMHC activity. Cited as a "reassessment" of the Corporation's role in the provision of housing and housing services, the report concludes that CMHC should primarily be concerned with the development of a "social or departmental housing policy." Emphasizing the theme of "adequate shelter," the document defines a program of direct income maintenance and housing

allowances as the optimum solution to housing problems.

**Canada.** Canada Mortgage and Housing Corporation. *Social Housing Evaluation.* Ottawa: Canada Mortgage and Housing Corporation, 1983.

Undertaken in an effort to provide an assessment of "the performance, results and cost-effectiveness" of CMHC's social housing programs, this report attempts to gauge program relevancy. In doing so, it offers an overview of programs such as, Public Housing, Private Landlords Rent Supplement, Non-Profit and Co-operative and, Rural and Native Housing program. Although not specifically detailing the conditions of northern housing, this report offers an insightful evaluation of two of the most pertinent "northern" programs; the Rural and Native and Non-Profit initiatives. While it chronicles problems of over-crowding, affordability and program inflexibility, it also argues in the case of the Rural and Native program, that "any housing provided under the RNH program constitutes an improvement over the quality of the previous accommodation.

**Canada.** Canadian Council for Rural Development. *A Development Strategy for the Mid-North of Canada.* Ottawa, 1976.

Published as a broad policy statement, this volume is in keeping with the regional planning tradition. Citing both the federal and provincial governments post-1960 regional orientation, the report details the success of programs such as the General Development Agreement and Ontario's Design for Development. In general, its conclusions call for the greater co-operation of government and community in the provision of local services.

**Canada.** Department of Energy Mines and Resources. *Mining Communities.* Mineral Bulletin MR 154. Ottawa: Department of Energy, Mines and Resources, 1976.

With the purpose of emphasizing "the need for comprehensive social planning of resource communities," the Federal Department of Energy, Mines

and Resources prepared this historical evaluation of the mining town phenomenon. The study discusses the growth of Canadian mining towns in terms of changing development strategy. The decade of the 1950s is portrayed as the pivotal period. It is described as the era when government finally assumed responsibility for the administration of mining communities.

**Canada.** Department of Energy, Mines and Resources. *New Financial Mechanisms for Addressing Mining Community Problems.* Ottawa: Department of Energy, Mines and Resources, September 1985.

This report which was intended as a "follow-up" to the recommendations of the Task Force on Mining Communities, discusses the so-called "financial mechanisms" available to government in the amelioration of mining town problems. In suggesting that existing programs were "inadequate," the study provides five "alternative" programs for development. Described as a Swedish-type investment fund, mining community reserve fund: option A, mining community reserve fund: option B, personal adjustment plan and labour-sponsored diversification fund, the report offers some innovative solutions to the problems of the single industry town.

**Canada.** Department of Indian and Northern Affairs. *Canada's North: The Reference Manual.* Ottawa, 1984.

Intended as simply a "Reference Manual," this volume provides a good overview of the land north of 60° N. Concentrating on the territorial North, the manual describes such facets of the northern environment as native land claims, mineral production and government administration. In terms of settlement and community infrastructures, the study allows for a reasonable understanding of the community hierarchy. Ranging in size from the cities of Whitehorse and Yellowknife to the more isolated "outpost camps" of Colville or Grise Fiord, community form clearly reflects the economic realities of the North. There is, however, little discussion of housing or housing issues -- although the report does provide some detail on housing costs.

**Canada.** Department of Indian and Northern Affairs Canada. *Indian and Inuit Affairs, Guideline House Design Program, Rural Plan, A-G,* Ottawa, 1981.

Arguing that the Department of Indian and Northern Affairs has been traditionally "committed to working with the Indian people in every way possible to assist in alleviating poor housing," INAC prepared and published this collection of housing manuals. Consisting of house designs, detailed working drawings, specifications and other technical data, the manuals were intended to facilitate local construction. With designs ranging from one bedroom units to multi-family structures, it is quite apparent that INAC was attempting to meet a variety of housing needs. In any event and through the regular input of "a number of Indian groups," INAC has not only tried to recognize the physical needs of the indigenous peoples but also in some cases, the cultural needs.

**Canada.** Department of Indian and Northern Affairs. *Indian Conditions, A Survey.* Ottawa: Department of Indian and Northern Affairs, 1980.

This report was prepared in an effort to document the changes that have occurred in "Indian social, economic, and political conditions" during the period from 1950-1970. It describes the "quantifiable aspects" of native living conditions and in the words of J.C. Munro, then Minister of Indian and Northern Affairs, provides a "consolidation of information." In terms of housing stock, the report details housing need, quality and services and the over-crowded living conditions on Canada's Indian Reserves. In specifically referring to the inadequate number of units available to the reserve population, the study maintains that "one in three Indian families" live in crowded conditions.

**Canada.** Department of Indian Affairs and Northern Development. *Land Use Planning in Northern Canada.* Ottawa, 1982.

In an effort to refine the process of northern land use planning, this working document provides an overview of the wide-range of "interacting components" essential to northern development. Including renewable and non-renewable resources as well

as the social environment. The report, through the synthesis of variables, calls for an "orderly" scheme of development. Although little consideration is given to community structure or housing type, the report does detail the regional complexion of the northern environment.

**Canada.** Department of Indian Affairs and Northern Development. *Northern Land use Planning*. Ottawa: Department of Indian Affairs and Northern Development, 1981.

In calling for the implementation of a "comprehensive," northern land use planning policy, this paper accurately identifies the problems inherent in the ad hoc crisis management approach to northern development. Citing 1970 as the pivotal year in which the land-use conflict between native pursuits and resource development "became a fact of life," the report defines a five point solution. Although not directly related to housing issues, the development of land-use priorities has major implications for northern settlement patterns.

**Canada.** Department of Indian and Northern Affairs. *On-Reserve Housing Manual*. Ottawa: Department of Indian and Northern Affairs, 1983.

In suggesting that the Department of Indian Affairs has initiated a major shift in on-reserve housing programs, this report attempts to document the process by which housing services were given back to the native population. With approximately 65 percent of the native bands in Canada administering "at least part of their housing programs," the study clearly lends its support to the doctrine of self-help. Referring specifically to communities such as Tappet, Alberta or Beaver Cove, Manitoba, the authors maintain that "the citizens participation approach allows personal growth to take place at the same time as new communities are growing."

**Canada.** Department of Indian Affairs and Northern Development. *Summary Report: Evaluation of the On Reserve Housing Program*. Prepared by Ekos Research Associates, 1985.

Based on a survey of 94 bands and 1,870 dwelling units, this report provides what appears to be a thorough assessment of the on-reserve housing program. This includes both the physical characteristics of housing stock as well as an evaluation of program delivery. Documenting overcrowded living conditions, the lack of basic amenities and a poorly founded need assessment process, the study indicates that about 47 percent of on-reserve housing stock is "physically substandard." Of particular note is that, in terms of housing adequacy, Manitoba ranks the lowest of all provinces with only 16 percent of the province's on-reserve housing judged as "adequate."

**Canada.** Department of Public Works. *Northern Housing: Guidelines and Standards*. Ottawa: Department of Public Works, 1979.

In a detailed method, this study provides a thorough evaluation of design techniques for northern housing units. Prepared by the Northern Housing Requirements Committee, Sub-Committee on Standards, the report's recommendations were intended as additions to the National Building Code. Much of its analysis is directed towards climatic conditions in the North. Indeed in suggesting that an understanding of "local climatological conditions is an essential prerequisite for planning," the report calls for the incorporation of air locks, thermal zoning and vapour barriers as a means to improving the quality of northern housing.

**Canada.** Department of Public Works. *Northern Housing: Guidelines and Standards*. Ottawa: Department of Public Works, 1984.

In describing the concept of "form following function" as the basic architectural ideal of northern house design, this report offers what are described as guidelines and standards for the design of heated buildings in the Canadian North. Further suggesting that northern design techniques differ in "degree rather than in kind" from southern examples, this study is intended to augment the requirements of the National Building Code. Detailing design initiatives such as pitched roofs, triple glazing and pre-painted metal siding, the report is a thorough and up-to-date compendium of northern design.



**Canada.** Employment and Immigration Advisory Council. *Canada's Single-Industry Communities: A Proud Determination to Survive.* A report to the Minister of Employment and Immigration. Ottawa, 1987.

In suggesting that the 15 recommendations submitted by the Advisory Council could form "the backbone of a national frontier policy," this report provides an overview of the single industry town phenomenon. Calling for the creation of Community Futures or the introduction of public works programs, this study clearly advocates greater government intervention as a partial solution to the problems of the one industry town. Of particular interest are the community profiles which sketch the circumstances of communities such as Buchans, Newfoundland; Kenaston, Saskatchewan; or Tahsis, British Columbia.

**Canada.** Government of the Northwest Territories. *Socio-Economic Impacts of the Nanisivik Mine on Northern Baffin Region Communities.* A Study conducted by the Baffin Region Inuit Association for Nanisivik Mines, Ltd., November 1979.

This study which was conducted in accordance with the "Master Agreement" governing the establishment of the Nanisivik Mine, is an attempt to gauge the impact of industrial development on the region's indigenous peoples. Focusing specifically on the communities of Arctic Bay, Pond Inlet, and Igloolik, the authors examined the commuting or rotation work schedule with a view to offering recommendations more attuned to the traditional Inuit lifestyle. After interviewing 85 Inuit workers, 33 wives and 26 children, the report concludes with a call for decreased work schedules, the provision of more family accommodation and greater availability of native foods.

**Canada.** Joint National Indian Brotherhood and Department of Indian Affairs and Northern Development Work Group. *Indian Housing Policy and Program.* Technical Report, Recommendations of the Joint National Indian Brotherhood and the Department of Indian Affairs and Northern Development Work Group. Ottawa, 1976.

This report records the findings of the Joint Working Committee on native housing policy. In suggesting that existing native housing programs are inadequate, this study calls for the implementation of a "comprehensive Indian Housing Program." Taking into consideration the need, aspirations and locations of native communities, the report further details the particulars of the potential programs. Through the liberal financing of the Department of Indian Affairs and Northern Development and the co-operation of the various Band Councils, the report projected a first year delivery of 3,000 new units and the rehabilitation of an additional 1,000 units.

**Canada.** Joint Task Force on Northern Housing Policy. *Housing and Northern People: Directions for the Northwest Territories in the Next Decade.* Canada Mortgage and Housing Corporation and the Northwest Territories Housing Corporation, September 1979.

Building on the tradition of the 1972 Northwest Territories Council Task Force on Housing, this report "re-endorses the unimplemented proposals of its predecessors." In particular, it recommends universal fuel and utility subsidies and the implementation of a more determined housing policy geared to increasing the availability of homeownership. Although the Task Force recognized that there were "no fast remedies" to the housing problem, its proposed "ten year framework," appears somewhat optimistic. The statistical information dispersed throughout the report is of great value.

**Canada.** Ministry of State for Urban Affairs. *Alternative Approaches to the Planning and Development of Canadian Resource Communities.* Prepared for the Ministry of State for Urban Affairs by Maksymec and Associates Limited, 1977.

One of two reports prepared for the Ministry of State for Urban Affairs, this study provides an interpretative overview of the resource town phenomenon. Isolating six resource communities as being "representative of alternative approaches to community development," the report includes a series of recommendations designed to facilitate future developments. In discussing the commu-

nities of Lynn Lake, Leaf Rapids, Fermont, Lanigan, Mackenzie and Manitowadge, the authors document everything from local taxes to housing stock. Suggesting that housing costs account for a major portion of development costs (1/3 to 2/3 of the total), the authors clearly underscore the dominant position of housing in community development. Indeed, in citing per capita costs of housing in the neighbourhood of \$5,600 to \$15,200 per community, the authors maintain that greater program initiative should be directed towards alleviating the personal financial burden.

**Canada.** Regional Economic Expansion. *Single Industry Communities*. Occasional Papers Series. Ottawa: Regional Industrial Expansion, 1977.

Primarily based on data collected for the 1971 Canadian Census, this federal government report provides useful information on both sampling techniques and definitions. Describing the single industry community as "one in which there exists a single dominant economic activity and which is not within commuting distance of another area offering alternative employment opportunities," this study identifies a total of 811 Canadian single industry communities. In doing so it also offers valuable commentary on the nature of the community and isolates some of the major problems inherent in a company dominated town.

**Canada.** Regional Economic Expansion. *Single-Sector Communities*. Ottawa: Regional Economic Expansion, 1979.

Cited as a follow-up to the 1977 study *Single-Industry Communities*, this report "incorporates further research" and offers "some revisions" to the original publication. On this basis it was intended to provide a "greater appreciation" of the single industry community and further, a methodological framework for continued analysis. Of particular significance is the emphasis placed on the regional character of single industry towns. This applies not only in a provincial sense but also to subregions within the various provinces.

**Canada.** Task Force on Housing and Urban Development. *Report on the Federal Task Force on Housing and Urban Development*. Ottawa, January 1969.

In a fairly critical appraisal of the federal government's housing program, the Hellyer report maintained that while the federal initiative had grown, it had done so on "an ad hoc reaction basis." In this regard the task force concluded that federal housing policy lacked the "pre-emptive" qualities essential to a practical program of development. While this was the report's major finding, it also provided a thorough historical overview of housing and urban development in Canada. Concentrating on the role of the Central Mortgage and Housing Corporation in the provision of housing, the task force recommended the greater centralization of administration in a federal Department of Housing.

**Canada.** Task Force on Mining Communities. *Report of the Task Force on Mining Communities*. Established by Federal, Provincial and Territorial Ministers with Responsibilities for Mining. Ottawa, September, 1982.

This report is a discussion paper of mining communities and the problems encountered therein as a result of mine closures. Although it does detail issues such as the "psychological aspects" of mine closures or the role of the local government in contending with mine shut-downs, its main emphasis is in community development and planning. Describing the "three prevalent styles of new communities" as the limited townsite, the modified townsite with fly-in-fly-out, and the large-scale townsite, the Task Force provides a good overview of the contemporary single industry town.

**Canadian Association of Single Industry Towns.** *Report: First Annual Conference, Sudbury, Ontario, September 24-26, 1986*. Sudbury: Canadian Association of Single Industry Towns, 1987.

As a summary report of CASIT's first annual conference, this paper offers a wide cross-section of commentary on the single industry town. Ranging from Benoit Bouchard, Minister of Employment and Immigration to Gary Hughes, Vice-President, Mining of Sherritt Gordon Mines, conference parti-

participants addressed everything from Community Future Programs to the loss of equity by homeowners. Of particular note in regard to home ownership was a recommendation by W. Curlook, Executive Vice-President of Inco, concerning a tax depreciation allowance for homeowners in new mining communities.

**Candu High School.** *The History of Uranium City and District.* Prepared by Grade 10 students. La Ronge: Lakeland Press Ltd., 1982.

Prepared as a local history project by a grade ten class at Candu High School, this historical overview of the Beaverlodge District provides a descriptive account of the central place of the extractive industries in the development of northern Saskatchewan. The booklet is also a good source of pictorial material for the Uranium City region. Indeed, through the use of photographs and local reminiscences, the students have captured the sense of the community from approximately 1952 through until 1981 when Eldorado Nuclear announced the closure of its mine.

**Card, B.Y., G.K. Hirabayashi, and C.L. French.** *The Métis in Alberta Society.* A report prepared for the Alberta Tuberculosis Association. Edmonton, 1963.

In what could well be the most detailed analysis of Métis living conditions in Canada, the authors have prepared an instructive overview of Métis society. Focusing specifically on Improvement District 124, the authors chronicle economic conditions, ethnic relations, recreational pursuits and housing adequacy. In terms of housing, Card *et al.* have compiled a detailed survey of the housing conditions in the three selected communities of Faust, Kinuso and Slave Lake. With a sampling of 175 households the authors measure homeownership patterns, household ethnicity, housing quality and living conditions.

**Carnegie, T.S.** "Inuit Builders: A Case for Grass Roots Development in Canada's East Arctic Communities," M. Arch. Thesis, University of California, Berkeley, 1984.

Tracing the history of Inuit housing from self-built "scrap" houses through the "319s" or "370s" to the Inuit Non-Profit Housing Associations domed housing, Carnegie offers a most positive interpretation of the self-help initiative. At the same time, however, the author is clearly critical of both the territorial and the federal government's for their failure to properly implement self-help programs. Arguing for a minimum of 90 percent native participation in: housing needs identification; building design, site and housing density planning; construction; house location, and; community planning, and at least 50 percent control of financing, Carnegie attempts to draft a blueprint for northern housing development.

**Carr, D.W. and F.W. Anderson.** *The Yukon Economy: Its Potential for Growth and Continuity.* A report prepared for the Department of Indian Affairs and Northern Development and the Government of the Yukon Territory. Ottawa, November 1968.

Described in the preface as "a study of the potential growth and viability of the Yukon economy," this report provides a reasonable statistical evaluation of the Yukon economy. In chronicling the central place of resource development in territorial well-being, the authors offer an overview of a typical "frontier" economy. This is also true of the housing market which because of high costs and financing difficulties is viewed as a long-term problem.

**Carter, Tom.** ed. *Northern Housing: Needs, Policies and Programs.* Winter Community Series No. 3. Winnipeg: Institute of Urban Studies, University of Winnipeg, 1987.

This volume is one of two publications appearing in the Institute of Urban Studies' Winter Community Series that feature selected papers from the Northern Housing Conference. Focusing on northern housing needs and the wide variety of policies/programs that have been implemented in an effort to meet those needs, the six papers offer a well-rounded overview of the northern housing experience. Ranging from Peter Anderson's discussion of the Rural and Native Housing Program to Lynn Hannley's presentation on housing delivery, the papers also provide very specific detailed analysis of some of the more

pressing northern housing problems. Included are issues such as the non-market community, "economic mismatch," or the suitability of core housing need measures in the North.

**Carter, Tom** "Yukon Housing Needs Study." Institute of Urban Studies, University of Winnipeg, 1986. (mimeo).

Undertaken in an effort to compile a data base of Yukon housing characteristics, this report offers a detailed analysis of housing information for seventeen Yukon communities. Ranging in size from the mostly native community of Old Crow to the territorial centre of Whitehorse, the various communities sampled provide a composite of both housing conditions and housing need. Specifically measuring "three housing indicators -- crowding, adequacy and affordability," the report documents the significant features of Yukon core housing need.

**Caverhill, W.** "New Housing for Northern Indians." *North* XVI (November/December 1969).

Caverhill presents a brief discussion on the Department of Indian Affairs and Northern Development's Northern Rental Program. With specific reference to the Northwest Territories, the author maintains that the program has helped to fill a void in accommodation as "the need for permanent homes has mushroomed." Indeed in providing 1,200 three-bedroom houses in the Eastern Arctic and 218 houses in the Mackenzie District, the Northern Rental Program has not only helped to fill a housing void but also stimulated the acceptance of "settlement living." Perhaps the biggest obstacle to the program and the one that is most clearly articulated by Caverhill is the whole concept of the rental unit.

**Cawsey, Thomas F. and P.R. Richardson.** *Labour Turnover in the Mining Industries.* Working Paper Series No. 153. A Report to the Mining Association of Canada. London: Research and Publications Division, School of Business Administration, University of Western Ontario, 1975.

This study suggests that the problem of labour turnover and/or shortages in the mining industry

are directly related to the industry's inability to accurately evaluate local conditions. In this sense, the report maintains that with greater effort devoted to determining the life-span of the mine and the consequent community requirements, many of the labour problems would immediately disappear. Its conclusions, however, indicate that the final responsibility for alleviating the problem rests with the individual mining firm itself.

**Centre for Human Settlements.** *Human Settlements and Renewable Resources North of Sixty.* Occasional Papers No. 7. Vancouver: Centre for Human Settlements, University of British Columbia, 1979.

This volume is a collection of papers presented at an "invitational seminar" sponsored jointly by the Social Council of Canada and the Ministry of State for Urban Affairs. Largely in response to the Arctic gas pipeline proposal, the seminar was held in an effort to determine the potential impact of the gas project on settlements north of 60° latitude. The most serious issues raised by the seminar were related to the Inuit and native population's ability to adjust to industrial development. Although some discussion is given to the problems of economic diversity or community structure, the volume is mostly an overview of northern development.

**Chibuk, J.H. and D. Kusel.** *New Communities in Canadian Urban Settlement.* Ottawa: Ministry of State for Urban Affairs, 1978.

Chibuk and Kusel's study of the new community phenomenon is an overview of the national perspective. The authors, however, concentrate on the federal initiative and the programs implemented by the federal government. Of particular note is the activity of the Department of Regional Economic Expansion and the Central Mortgage and Housing Corporation. In general the study is a fairly positive assessment of the new community program in Canada although some criticism is directed by the authors towards the private sector.

**Chislett, Katherine L.** "Housing Métis in Northern Saskatchewan: An Examination of the Northern

Housing Program," M.A. Thesis, The University of Western Ontario, 1985.

Arguing that the Rural and Native Housing Program, as introduced in Northern Saskatchewan in 1974, was doomed to failure from its inception, Chislett presents a most negative appraisal of the government initiative. Suggesting further that because the program "failed to account for the cultural, economic and geographic characteristics of its clients," the author maintains that the "Southern" bias of the housing initiative made it unworkable. Using data compiled from the Northern Municipal Council's *Housing Needs Survey*, Chislett concludes that in order for northern housing programs to be effective they must "recognize and capitalize upon regional variations . . . by facilitating self-help initiatives."

**Chislett, K.L., M.B. Green and R.M. Bone.** "Housing Mismatch for Métis in Northern Saskatchewan." *The Canadian Geographer* 31 (Winter 1987).

In examining the Department of Northern Saskatchewan's Northern Housing Program, the authors conclude that although the quality of housing improved significantly under the initiative, it thoroughly misinterpreted the housing needs of the Métis population. Conjuring up the notion of "economic mismatch" wherein a given "household is unable to operate and maintain the unit because it cannot afford such costs," Chislett *et al.* underscore one of the major problems associated with northern housing. If the "house does not suit the economic, cultural and geographic characteristics of the region" they argue, then it will not solve the housing problems therein.

**Clarke, W.F.** "Leaf Rapids Development." *The Canadian Mining and Metallurgical Bulletin* 68 (April 1975).

Clarke, personnel and industrial manager with Sherritt Gordon Mines Ltd., describes in some detail the company perspective in the planning and development of a single industry town. Largely based on the mining company's past experience in community development, Sherritt Gordon adopted what could be described as a progressive approach

to local affairs. In this fashion the company retained outside consultants and eventually joined the provincial government in the creation of the Leaf Rapids Development Corporation to oversee community affairs.

**Clatworthy, S. and H. Stevens.** *An Overview of the Housing Conditions of Registered Indians in Canada.* A report prepared for Indian and Northern Affairs Canada, Ottawa, 1987.

In what is undoubtedly the most up-to-date and thorough analysis of native housing conditions ever prepared in Canada, Clatworthy and Stevens provide something of a compendium of native living conditions. With topics discussed ranging from household composition patterns to housing deficiencies to even housing adequacy, the authors cover a multitude of housing related issues. Concluding that 33 percent of on-reserve households live in crowded dwellings, 50 percent of the on-reserve housing stock lacks central heating, 37 percent of the on-reserve housing stock lacks complete bathroom facilities and that 23 percent of the on-reserve dwellings require major repairs, Clatworthy and Stevens underline the more pressing housing needs of the native community. The housing problems, however, are described as a symptom of the poverty encountered by the native population, one which housing alone cannot solve.

**Clegg, E.T.** "A Regional Analysis of A Single Enterprise Community of Settlement." M.Sc. thesis, University of British Columbia, 1958.

In suggesting that a "number of physical factors tend to confine" the single enterprise community phenomenon to "natural geographic regions," Clegg documents the regional basis of community development. In doing so the author discusses the sense of regional dependency that plagues the resource production process. Clegg argues that the problems inherent in the single enterprise economy are largely the product of government-industry dominance. He concludes that with stronger individual initiative the regional economy would experience greater diversification.

Clunie, D. "Two Northern Communities." *Contact* (August 1976).

Clunie discusses the development of Leaf Rapids, Manitoba and Fermont, Quebec as examples in the application of the "new planning concepts." Referring specifically to features such as compact urban planning, windscreening techniques, climate-controlled pedestrian walkways and the town centre complex concept, Clunie effectively demonstrates the need for a uniquely northern planning approach. Central to the discussion, particularly in terms of Leaf Rapids, is the dominant role of a single planning authority. This, according to Clunie, provides for well measured growth in tune with the northern environment.

Collard, J. *Indian Housing in the North*. Yellowknife: Government of the Northwest Territories, 1983.

This study was undertaken in an effort to "chronicle the history of Indian housing and the development of Indian housing programs in the Northwest Territories." Although the author provides little in the way of original analysis, Collard's description of native housing offers a reasonable overview of the phenomenon. Her conclusions, that native housing problems in the N.W.T. are partially related to the jurisdictional questions of government authority, are well founded. Of particular interest is the author's use of archival material -- although basic footnoting would have substantiated her findings.

Collinson, J.D., F.H. Compton, M. Duncan, D. Eryou, G. Fields, D. Grower, R. Kabaluk, H. Pastuck and C. Wall, *Churchill River Study: Socio-Economic (Manitoba)* Manitoba, Department of Mines, Winnipeg, 1975.

Prepared under a tri-partite agreement, this report was undertaken in an effort to examine all the "significant social, economic, and environmental effects" of the water-related projects in the Churchill River Basin. Towards this end, the study offers an indepth profile of three remote Manitoba communities -- Brochet, Pukatawagan and Granville Lake, and further, attempts to project the local impact of hydro development. In general, and while

the housing and/or community infrastructure analysis is woefully lacking, the report provides a most detailed overview of the northern economy. From labour force statistics to yearly fur harvest yields, the study paints a fairly negative picture of the process of modernization.

**Committee on Physical Planning.** *A Study of Northern Settlements*. Montreal: McGill University, 1957.

The Committee on Physical Planning at McGill University, in conjunction with the federal government's committee on northern development, prepared this report in an effort to "review problems in northern development." Reading very much like a broad policy statement, the study provides little in the way of an innovative interpretation of northern settlement. Nonetheless, in suggesting that "northern homes and buildings differ little from those in the permanently settled parts of Canada," the committee identifies one of major problems of northern housing.

Cooper, P.F. "Application of Modern Technology in an Arctic Environment." *The Polar Record* 14, 89 (1968).

Concentrating on the Mackenzie Delta area of the Northwest Territories, Cooper discusses the practicality of introducing the "southern way of life" to the district's inhabitants. With particular reference to heat, light and power, water supply and sewage disposal, the author gauges the impact of the northern environment on the provision of community facilities. In terms of housing, and while Cooper outlines problems of permafrost, insulation and transportation related costs, he contends that the major impediment in the construction of quality housing in the North is the lack of administration.

Copp, S.S. "Protection of Utilities Against Permafrost in Northern Canada." *Journal of the American Water Works Association* 48 (September 1956).

In what is a summary of a paper delivered at the Canadian Section Meeting of the American Water Works Association, the author provides a technical account of utility servicing in the North. Focusing

specifically on the Yellowknife relocation program of 1945, the author offers a detailed analysis of the "recirculating water distribution system" as incorporated in the community. Suggesting that it was the "second of its type to be employed in Canada," the Yellowknife experience proved to be not only a testing ground for the innovative water system but also a method of experimenting with ground temperature.

**Costellano, M.** "The Métis Build A Community." In *Participating Democracy in Action*, ed. D.A. Chekki. Sahibabad: Vikas Publishing House, 1979.

Tracing the evolution of the community development program as implemented at Burleigh Falls Ontario, Costellano offers a good overview of the "long climb to the recovery of pride." Begun in 1972-1973 with the formation of the Kawartha Métis and Non-Status Indian Association, the recovery of pride was very much a self-help program of local improvement. From the rehabilitation of housing stock with Winter Warmth funds to the actual building of new units through the Assisted Home Ownership Program, the KMNSIA has provided a blueprint of community development.

**Cram, J.M.** "Differential Need Satisfaction of Mine Workers in Northern Canada." *Canadian Journal of Behavioural Science* (1972).

Using L.W. Porter's eighteen point needs satisfaction questionnaire, Cram interviewed 228 workers in isolated mining camps in an effort to measure "need fulfilment and dissatisfactions." The five camps studied varied in size from a small open pit mine to a townsite for 800 people complete with shopping facilities and a swimming pool. The smaller or more isolated camps seem to give evidence of a greater sensitivity of workers to physical conditions. In all camps, however, Cram's conclusions indicate that worker satisfaction was most negatively voiced over issues of esteem and self-actualization.

**Cram, J.M.** "Perceived Need Satisfaction of Workers in Isolated Environments." Ph.D. thesis, University of British Columbia, 1969.

Utilizing an elaborate questionnaire styled survey, Cram "examines the job satisfactions, personal histories and performance ratings" of workers in five isolated mining camps. In distributing the questionnaires to miners in both the Yukon and Northwest Territories, the author received a sampling response from 228 workers. Using the so-called Porter-Lawler concept of "Expectancy Theory," Cram ranks worker's "needs categories." It is of some interest to note that most respondents perceived the isolated camps as "socially satisfying places."

*Crofter Evaluation: Lorette, Manitoba.* A report prepared for CMHC by G.K. Yuill and Associates Ltd., Winnipeg, 1987.

The "Crofter," which was described as a "series of housing designs" developed for use in the rural and native housing program, is the subject of this detailed evaluation. Initially developed in an effort to reduce foundation movement, condensation, air leakages, and to improve energy efficiency, the Crofter was seen as an alternative house form to the "standard" RNH unit. With a view to comparing the relative merits of one house type over the other, two such houses were erected in 1984-1985 in Lorette, Manitoba. Although the Crofter performed well, it "did not perform significantly better than the standard RNH unit." Indeed, because of the added expense, shifting foundations, air leakage and heating problems, the Crofter did not proceed beyond the experimental stage.

**Culjat, B.** "Climate and the Built Environment in the North." Ph.D. thesis, Institution for Arkitektur, Stockholm KTH, 1975.

In suggesting that Resolute Bay, N.W.T. provides a "test-tube condition" for building in cold climates, Culjat develops a strong case for the planning of the livable winter city. His discussion which emphasizes compact land-use, wind screening techniques and colour enhancement, indicates that even in extreme conditions, it is possible to live in harmony with the environment. In an effort to "optimize" the northern climate, Culjat, in the tradition of Ralph Erskine, proposes a comfortable ambience with nature.

## D

D'Aoust, S. *Federal and Provincial Housing Assistance Programs Available for Rural and Native Clients*, Ottawa: CMHC, 1979.

In suggesting that a complete evaluation of the federal government's rural and native assistance program is impossible without consideration of provincial government activity, D'Aoust attempts to offer a global overview of the RNH program. Arguing further that with the exception of Alberta, there is "no comprehensive statement" of provincial programs, D'Aoust is clearly attempting to fill a void. The report, however, is little more than a descriptive inventory of available programs. Nonetheless, it does provide for interesting comparisons but it actually offers little in the way of interpretation.

Dant, N. "New Towns in Alberta." *Contact* (August 1976).

Dant, a former planning consultant to the government of Alberta, presents an overview of the Alberta new town phenomenon. Focusing on the *New Towns Act* of 1956, Dant provides an objective appraisal of Alberta's new town program. Citing examples such as Lodgepole, Drayton Valley, Fort McMurray and Grande Cache, the author maintains that while Alberta's approach to the new town problem was well founded, it in fact contributed to the ad hoc pattern of settlement that characterizes Northern Alberta.

Davis, A.K. "Toward Mainstream." *Western Canadian Journal of Anthropology* 1 (January 1969).

In arguing that "urban migration" is the most effective means of providing for the community needs of Canada's indigenous people, Davis proposes the outright assimilation of native peoples. Isolating problems of housing adequacy and affordability, Davis describes native communities as "pockets of poverty." Lacking what the author cites as the "economic and motivational resources for evolving into modern communities," the native settlements

are viewed with contempt. Davis' recommendations which include limiting subsidies "in order to increase the push out" from native settlements is a clear indictment of the self-help model.

Deirmenjian, S. and M. Jones. *Planning for Communities in the North: A Preliminary Evaluation of an Innovative Approach in the Northwest Territories*. Department of Urban and Regional Planning, Occasional Paper No. 10. Toronto: Ryerson Polytechnical Institute, 1983.

An abbreviated version of Deirmenjian's thesis, this paper is a brief but concise account of the northern town planning experience. Suggesting at the outset that federal land use policy in the North seriously conflicts with traditional native needs, the author's address the issue of native participation in the planning process. Isolating the hamlet of Pond Inlet in the Northwest Territories as a case study, the author's clearly relate the detrimental impact of "southern culture" on the native community.

de Jordan, A. "Native Housing: The Focus is Self Help." *Habitat* 18, 2 (1975).

In quoting from the Hellyer report and in suggesting that 90 percent of all housing on Indian reserves "was substandard," Jordan makes a strong case for native self-help programs. Of particular note is the Rural and Native Housing Policy, the CMHC Emergency Repair Program and the variety of native training programs sponsored by CMHC. Although the author does imply that problems such as land-ownership, inadequate financing or the federal-provincial jurisdictional conflict will continue to work against the provision of native housing stock, self-help may indeed be the logical answer.

Dennis, M. and Susan Fish. *Programs in Search of a Policy: Low Income Housing in Canada*. Toronto: Hakkert, 1972.

Dennis and Fish provide a good historical overview of the government housing initiative in Canada. Although the authors chronicle the impact of the various *National Housing Acts* on housing develop-



ment, the thrust of their analysis concentrates on the role of the Central Mortgage and Housing Corporation. At the provincial government level the study is mostly a discussion of the Ontario provincial government housing initiative. Of particular note is the author's discussion of the Ontario Housing Corporation.

den Otter, A.A. "Lethbridge: Outpost of a Commercial Empire." *In Town and City: Aspects of Western Canadian Urban Development*, ed. A.F.J. Artibise. Canadian Plains Study Series No. 10. Regina: Canadian Plains Research Centre, 1981.

Den Otter's study of Lethbridge paints an intriguing picture of orderly growth on the mostly helter-skelter Alberta coal frontier. Tracing the history of the community from approximately 1882 with the formation of the North Western Coal and Navigation Company through until its incorporation as a city in 1906, the author provides a comprehensive view of community development. In doing so, den Otter concludes that the form of the community was the result of Alexander Gault's paternalism and the dominance of a local elite.

den Otter, A.A. "Social Life of a Mining Community: The Coal Branch." *Alberta Historical Review* 17 (February 1969).

Andy den Otter's study of the Alberta Coal Branch which he describes as "a cluster of small settlements strung along a railway branch line," offers a regional interpretation of the single industry town phenomenon. Tracing the histories of communities such as Mountain Park, Cadomin and Lovett, den Otter suggests that the various mining companies were "very much responsible for the living conditions" in the townsites as "the miners lived in closed camps." Quoting from the Alberta Coal Commission of 1925, den Otter concludes that the communities of the Coal Branch provided only "fair to good" accommodation.

Dent, M. "Timberlea: Fort McMurray's Answer to Unpredictable Urban Growth." *Habitat* 26, 2 (1983).

In detailing the phenomenal growth of Fort McMurray and its equally phenomenal decline, Dent describes the all-to-familiar boom-bust cycle of the resource town. In specifically evaluating the so-called "showcase subdivisions" of Timberlea the author vividly describes a "dream" that "went awry." Between 1979 and 1982 the city of Fort McMurray and the Alberta Housing Corporation spent in excess of fifty million dollars on the Timberlea project. However, it lacked what the author called the "one crucial ingredient" -- people. Nonetheless, because the subdivision was planned as several individual neighbourhoods, some development has occurred.

Deprez, P. *The Pine Point Mine and the Development of the Area South of Great Slave Lake*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1973.

Prepared as an "economic evaluation of indigenous employment at Pine Point," this study focuses on the almost non-existent native employment opportunities offered by the Pine Point Mines Ltd. operation. At the same time, however, the report describes the process of community development and provides a vivid picture of "Housing Policies and Housing Problems." The housing programs pursued by Cominco, the territorial government and the federal government, all to one degree or another, alienated the native population and thereby restricted employment opportunities.

Deprez, P. and A. Bisson. *Demographic Differences Between Indians and Métis in Fort Resolution*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1975.

Deprez and Bisson offer a detailed, statistical interpretation of native demographics for Fort Resolution. Although little consideration is actually given to community structure, the population analysis provided by the study is pertinent not only to Fort Resolution but in a more general way to the total demography of the North. The relative decrease of the status-Indian population for example, will dramatically affect future programming throughout the North. This is compounded by the existing dichotomy between status and non-status native

groups, which has produced two distinct native enclaves in the North.

**Detomasi, D.D.** "The Delivery and Financing of Housing." In *Resource Communities: A Decade of Disruption*, ed. D.D. Detomasi and J.W. Cartrell. Colorado: Westview Press, Inc., 1984.

In suggesting that the problem of resource town housing is a "complex" series of housing related issues, Detomasi attempts to provide a selection of housing alternatives. In doing so, he identifies six of the "major and most common problems," and further reflects on demand side of the housing markets. In this fashion Detomasi focuses on housing costs, the segmented nature of the housing market, housing shortages, inappropriate housing design and the lack of choice, both in terms of company employees and the service sectors. His recommendations range from housing co-operatives to the incorporation of cost reducing, design techniques. Of particular interest is the author's conclusion that company subsidies are "destructive of overall resident satisfaction and a negative factor in the community development of resource towns."

**Detomasi, D.D.** "Growth and Decline in Alberta Towns: Some Policy and Planning Implications." *Alberta Journal of Planning Practice* 4 (Fall 1986).

Detomasi examines the fate of small town Alberta, with the conclusion that the optimum method of restoring the vitality of the small town is through "bottom up" as opposed to "top down" planning. His analysis suggests that during the period 1975-1985, Alberta's small towns experienced both a boom and then a bust cycle. The five years 1976-1981 are described as years of dramatic expansion in which public policy simply attempted to "manage" the rapid growth. The second period was one of decline where government activity attempted to encourage economic diversification. Arguing that neither approach was successful, Detomasi returns to the principal of self-help.

**DeWet, J.P.** "Snow Lake Manitoba: A Model Industrial Townsite." *Precambrian* (March 1951).

De Wet's study of Snow Lake which is subtitled "A Model Industrial Townsite," discusses the co-operative nature of post-1945 community development in Manitoba. Describing the townsite as the "first mining town" to be developed under the Local Government Districts Act, the author places Snow Lake at the forefront of the new town phenomenon. In this manner, De Wet details the zoning practices, subdivision policy techniques and a general appreciation of contour design, as symbolic of a new direction in single industry town development.

**Dickens, H.B. and R.E. Platts.** "Housing in Northern Canada: Some Recent Developments." *The Polar Record* (September 1960).

In arguing that the northern environment has given rise to a unique set of housing needs, Dickens and Platts maintain that the special circumstances of northern housing have been dictated by "the peculiar economic and logistic factors of the north." Under-scoring the cost factor as the "major determining factor in the selection of northern building," the authors provide a technical examination of both Eskimo housing and the process of building "new communities." Focusing on prefabricated units and the precut system of assembly, Dickens and Platt also underscore the importance of a flexible building design.

**Dickman, P.** "Thoughts on Relocation." *Musk-Ox* 6 (1969).

Dickman, Community Development Officer of the Manitoba government, provides a condemning overview of the Duck Lake relocation program. Particular emphasis is placed on the issue of housing as Dickman argues that "it is one of the most obvious problems in [the] Dene Village." Indeed, the author goes as far as to suggest that the housing program was "ill-conceived and poorly timed." Calling the units "economy copies of southern suburban," Dickman maintains that not only are they poorly suited to the northern environment but are most inappropriate as native housing.

Dietze, S.H. "Housing in the Canadian North." M. Arch., University of Toronto, 1967.

Dietze's study offers a good overview not only of the development of northern housing, but also the expansion of the single industry community. In general, he suggests that community development, like housing, was often undertaken or provided with little recognition of the unique single industry environment. "Too strong," the author maintains, has been the influence of southern planning concepts such as greenbelt planning, superblock design, garden city principles or neighbourhood unit concepts. In a rather provocative conclusion, Dietze recommends that "the only code of northern town design that should be subscribed [to] is that there shall be no code."

Dietze, S.H., *The Physical Development of Remote Resource Towns*. A report prepared for Central Mortgage and Housing Corporation. Ottawa, 1968.

Following in the tradition of the formative study *Single Enterprise Communities in Canada*, this Central Mortgage and Housing Corporation sponsored report establishes the basis for contemporary resource town analysis. In maintaining that Canada lacks a "solid tradition" for the development of single industry towns, Dietze provides a backdrop for the evolution of such a tradition. His appraisal which includes categories such as "Policy Background," "Geographic Determinants" and "The Town Plan" provides a nation wide perspective of the single industry town. Specific references to communities like Gold River or Pinawa underscore the author's findings.

Don Jossa and Associates (Yellowknife). *Planning and Architectural Considerations for Northern Housing*. A report Presented to CMHC, May 1986.

The purpose of the report was to "produce a comprehensive, clearly written, illustrated guide on significant aspects of the planning and architectural design of Northern housing." Their conclusions which suggest that the housing market in the North has changed dramatically in the last twenty years, accurately pinpoint a distinctively northern housing tradition. Emphasizing features such as accessibility, kinship ties and the unique

culture of the North, the authors present a thorough overview of the northern community phenomenon.

Duerden, F. "Yukon Settlements: A Critical Review of Data." *The Polar Record* (January 1980).

As the title indicates, this paper is a "critical review" of Yukon settlement data. In suggesting that the material is "narrow and unreliable, and fails to give a balanced view of the structural, economic and ethnic dimensions of settlements," Duerden takes issue with many of his predecessors. Although the author does make mention of the Yukon Housing Corporation's effort to quantify housing stock, he qualifies his notation with the rejoinder that the Corporation's work contains "major inaccuracies." In the tradition of a literature review, the author concludes that a detailed data collection exercise is "long overdue."

Dunning, A.D.W. "Townsite and Town-Planning," *North* (May/June 1964).

Dunning's study of Pine Point, N.W.T. chronicles the early stage of community planning. In suggesting that from the beginning of the operation the Pine Point Mines Company had fully intended to develop an "open town," Dunning provides a company oriented appraisal of community development. Company housing was a major component of this initiative. Indeed, the first fifty-three houses erected on the site were company houses. The company housing program also included two 50-man bunkhouses. Although Dunning suggests that the company expected more of its "married labour force to own their own homes," company policy appeared to more accurately reflect the closed town phenomenon.

## E

"Economic Spinoffs: Rural Housing Programs Have Positive Side Effects for Northern Communities," *Municipal Counsellor* 33, 1 (1988).

In what appears to be a Department of Municipal Affairs news release, this brief statement offers a concise overview of the precedent setting Rural Home Assistance Program. Operating in eight Métis settlements and thirty remote or isolated communities, the RHAP initiative has delivered approximately 1,100 homes over the course of the last decade. Underscoring both the local initiative as well as the so-called "economic spin-offs" of the program, the Department of Municipal Affairs clearly cites the RHAP alternative as the foundation of its rural-remote housing endeavours.

Elias, Peter D. *Metropolis and Hinterland in Northern Manitoba*, Winnipeg: Manitoba Museum of Man and Nature, 1975.

A published version of the author's dissertation, *Metropolis and Hinterland* is a case study in economic dependency. Not only is this true at the macro level but also at the micro or community level. Elias' emphasis on class and class conflict is clearly articulated through his analysis of an "under" and an "upper" class. The native community comprises a large portion of the underclass and is generally described as the oppressed segment of the Churchill population. This is reflected in housing. Using a 1971 housing survey, the author maintains that native accommodation is far from adequate. In describing leaking roofs, broken windows and poorly fitted doors, Elias recommends a re-assessment of native housing programs.

Elliot, J.L. *Native Peoples*. Scarborough: Prentice-Hall, 1971.

Published as part of the Minority Canadians series, this volume provides a multi-disciplined overview of the Indian, Eskimo, and Métis minorities in Canadian Society. Ranging from Richard Slobodin's study "Métis of the Far North" to Harold Cardinal's most controversial paper "The Unjust Society," the essays included in this volume offer both an academic as well as a first hand account of the Canadian minority group. Of particular interest to the study of community and community infrastructure are the essays "The Eskimo of Churchill" and "The Eskimo of Frobisher Bay." In both cases the authors document features such as housing type,

residence location, kinship ties and "housing management" techniques.

Erskine, R. "Architecture and Town Planning in the North." *The Polar Record* 14, 89 (1968).

One of the world's premier northern architects, in this paper Erskine discusses the challenges of building in the Arctic environment. In an often quoted phrase the author sums up his approach to the North when he maintains that "houses and towns should open like flowers to the sun of spring and summer but, also like flowers, turn their backs on the shadows and the cold northern winds." Calling for compactness of design, high-density accommodation, windscreen buildings and tree belts, Erskine articulates the case of the livable winter city.

Ervin, A.M. "Conflicting Styles of Life in a Northern Canadian Town." *Arctic* (June 1909).

Concentrating on the community of Inuvik, Ervin graphically illustrates the dichotomy that exists between the permanent "northerner" and the far more temporary "southerner." Of particular note is the quality of housing. The author argues that there are two very distinct settlement areas within the townsite; the "serviced" and the "unserviced" area. The northern population is mostly restricted to the unserviced area where the basic dwelling unit is the "512" prefabricated home. Mention is also made of the Inuit Housing Co-operative's "17 modern bungalows" but by and large the unserviced area compares most unfavourably with the serviced area. Offering all the amenities of "middle class comfort," the serviced area contains modern furnished apartments and quality housing units.

## F

Fairfield, R.L. "New Towns in the Far North." *Journal of Canadian Studies* 2 (May 1967).

In describing the development of new towns in the Northwest Territories, Fairfield articulates many of the building problems associated with the northern environment. Citing communities such as Norman Wells, Port Radium, Inuvik and Frobisher Bay, the author provides a valuable overall perspective to the northern community experience. With specific reference, however, to Frobisher Bay and the work of the Frobisher Bay Consultants - of which Fairfield was a member -- a most detailed account of Arctic "new town" design techniques is provided.

Fenge, T. and Rees, W.E. (eds), *Hinterland or Homeland?*, Ottawa: Canadian Arctic Resources Committee, 1987.

Published by the Canadian Arctic Resources Committee, this volume of essays is clearly intended to offer a guide to "the development and conservation of the North's natural resources." Providing a well-balanced interpretation of development issues, this book succeeds in documenting some of the more pressing environmental issues that are inherent in the northern development process. This is particularly true of Rees' interpretation of "land-use regulation" or Fenge's assessment of the "institutional and political barriers" that have adversely affected environmental planning. Perhaps, however, this volume's largest consideration is through its discussion of the land-use conflicts which are now so important to Canada's northern aboriginal peoples.

"Financing Mining Community Adjustment." *A discussion paper on the Community Development Fund*. Prepared for the Federal, Provincial, Territorial Mines Ministers Conference, September 1986.

As a follow-up to the 1985 publication, *New Financial Mechanisms for Addressing Mining Community Problems*, this paper examines the potential of the Community Development Fund (CDF) and its applicability to the single industry town. It was prepared by a "working group," representing the Mining Association of Canada, the United Steelworkers of America, the Canadian Association of Threatened Single Industry Towns, the federal government and the provincial/territorial

governments. In suggesting that the "CDF mechanism would enhance the financial resources and program flexibility available to single industry communities," the report clearly argues in favour of the CDF model.

Fowler, H.L. and J.T. Phalen. *The Great Slave Lake Area: Its Potential for the Development of Co-operatives*. A report prepared for the Northwest Territories Council. Ottawa: Co-operative Union of Canada, 1963.

In an effort to determine the potential that the Northern co-operative holds for "assisting Métis and Indian people . . . in developing resources and increasing employment," the territorial government initiated this survey-styled enquiry. Although very much of a preliminary nature, the report recognizes two distinct forms of co-operatives. The project co-operative is described as goal oriented, while the community co-operative is concerned with matters pertinent to the community at large. In describing the community approach to the co-operative issue, the study provides an overview of settlement in such places as Jean Marie River, Snowdrift and Fort Resolution.

Francis, J.W. "Garden Cities in the North?" *North XVII* (March/April 1970).

In a somewhat critical assessment of the process of community development in the North, Francis calls for the greater consideration of the unique northern environment in the planning of single industry towns. In an effort to avoid the growth of "dreary little suburban towns" in the North, the author recommends several solutions, all of which centre on compact townsite design. Equally important in this regard is the theme of the non-permanent community which Francis suggests could be moved from one development site to another.

Freeman, M. "The Significance of Demographic Changes Occurring in the Canadian Eastern Arctic." *Anthropologica* 13 (1971).

In comparing the Northwest Territories and Newfoundland with "certain less-developed nations in Africa, the Near East and Latin America," Freeman conjures up parallels of underdevelopment. Citing a large imbalance between people and capital resources, the author maintains that rapid population growth will, for the foreseeable future, continue to outstrip economic growth. This, according to Freeman, is no where more evident than in the area of housing. Arguing that even with the \$12.5 million budget of the Eskimo Rental Program, the provision of housing units could not keep pace with the demand for accommodation, Freeman paints a bleak picture of the "modernization" process.

Fried, J. "Settlement Type and Community Organization in Northern Canada." *Arctic* 16 (June 1963).

Published as a summary report of field work undertaken for the Department of Northern Affairs and National Resources, Fried's study provides an overview of settlement types in the Canadian North. Using three types of criteria to classify northern settlement Fried identifies seven settlement forms. Based on degree of planning, purpose of community and the nature of the social organization, Fried defines: the isolated technical station; the military base; the outpost service settlement; the serviced native enclave; the regional administrative centre; the frontier town and the mining settlement. The author also provides some insight into the white-native dichotomy of northern settlement -- particularly in the communities of Churchill and Inuvik.

Frost, G. *Manufactured Housing in Resource Communities: A New Approach*. A Report Prepared through the Innovative Housing Grants Program of the Alberta Department of Housing. Edmonton, 1984.

In a most progressive evaluation of the resource communities' housing needs, Frost argues for a "review of alternatives to establishing a permanent town site." In this regard, the author recommends modular or "manufactured housing" as a practical response to housing need within the resource sector. Detailing the advantages of manufactured housing Frost cites: lower costs; faster construction; on-site assembly by a semi-skilled labour force; and

the elimination of the financial problems associated with construction slow-downs. Recognizing the potential for confrontations between the manufacturers and the site contractor, Frost concludes his study with an assessment of contract enforced housing responsibilities.

## G

Gartrell, J.W. and H. Krahn. "Population Growth and Stability in Alberta Hinterland Boom-Towns." *Centre-Periphery: Theory and Practice*. Proceedings of the 6th International Seminar on Marginal Regions. Bergen/Sognold, 1983.

In an effort to examine residential stability in the so-called boom-town of Fort McMurray, Gartrell and Krahn provide a comparative study of population growth and stability. Detailing the demographic circumstances of both the community of Fort McMurray and the surrounding Cold Lake Region (CLR) the authors conclude that the "population of rapidly-growing Fort McMurray was much less stable than the population of the CLR." Contributing to the transient nature of the population were local construction practices. Supporting the contention that the "Fort McMurray housing trend has been away from single family housing," the multi-family unit has evolved in response to worker transiency.

Gartrell, J.W., H. Krahn, and T. Trytten. "Boom Towns: The Social Consequence of Rapid Growth." In *Resource Communities: A Decade of Disruption*, ed. D.D. Detomasi and J.W. Gartrell. Colorado: Westview Press, Inc., 1984.

In an effort to measure the social impact of a resource development project the authors isolate the energy resource communities of Northern Alberta. Focusing specifically on the town of Fort McMurray, the authors chronicle what they define as the "Fort McMurray syndrome." Described as the "interlocking problems of inadequate housing and community services, individual alienation, family breakdown, and minimal social control," Gartrell *et al.* suggest that the resource community pheno-

menon gives evidence of a traditional process of development.

**Gauthier, P.G.** "New Industrial Townsites." *Canadian Mining Journal* 70 (July 1949).

In suggesting that "the most important contribution to the success of an industry is labour," Gauthier relates the concept of the "modern industrial town" directly to labour accommodation. In this fashion he maintains that in order for industry to attract a skilled labour force it is essential that it provide quality facilities. This, he argues, begins with site-selection and continues through surveying, soil typing, the construction of utility services and the actual building of the townsite.

**Gerein, H.J.F.** *Community Planning and Development in Canada's Northwest Territories*. Yellowknife: Government of the N.W.T., 1980.

Written in an effort to identify the unique characteristics of the Northwest Territories, this government co-ordinated publication provides a thorough overview of the northern environment. In terms of housing construction, the report details everything from building constraints to foundation laying. The distinctly northern flavour of house building is reflected in the consideration of pilings or surface foundations. The report also provides an intriguing schematic "Progression of Northern Housing" which demonstrates both a change in housing demand and in building techniques.

**Gherson, J.** "Housing in the Yukon Territory." In *The Yukon Economy: Its Potential for Growth and Continuity*, ed. D. William Carr and Associates Ltd. Ottawa: Department of Indian Affairs and Northern Development, 1968.

In arguing that the availability of satisfactory accommodation is an important element of labour recruitment, Gherson clearly ties the provision of housing to the economic well-being of the Yukon. Maintaining that approximately 51 percent of Yukon housing stock is in need of repair, the author paints a bleak picture of both the quality of housing and

as a consequence, the local economy. Further suggesting that this so-called "deplorable state" is related to the high cost of construction, inadequate mortgage financing, the transient population, the lack of community infrastructure and the high proportion of low-income families resident in the Yukon, Gherson also offers a less than pleasing description of future housing prospects.

**Gibson, R.B.** "The Strathcona Sound Community: Lessons from Preliminary Planning." *Contact* 8 (August 1976).

In a critical assessment of the Strathcona Sound project, Gibson suggests that the potential of the scheme was never fully realized. This, he argues, was largely due to the government's "willingness to use conventional technologies and designs" rather than develop site oriented methods. In any case, the Strathcona Sound endeavour was a co-operative attempt on the part of the federal and territorial governments to solve the dual problem of resource exploitation and native wage employment.

**Gibson, R.B.** *The Strathcona Sound Mining Project*. Background Study No. 42. Ottawa: Science Council of Canada, 1978.

Although written as a case study of the Strathcona Sound project, Gibson's work provides a good overview of changing federal government policy. He describes three major eras in the evolution of government orchestrated resource development. The first, in the immediate post-World War II period, was one of minimal government involvement and largely focused on the provision of essential services. The second era which Gibson denotes as a "partnership" between the resource industries and the federal government, was strictly a period of resource exploitation. The third and final period was something of a reactionary period in which the government re-assessed its development "at all cost" approach to northern resources.

**Glover, M., ed.** *Building in Northern Communities*. A report on a Conference Workshop held at the University of Montreal, Arctic Institute of North

America, 1973. Montreal: The Arctic Institute of North America, 1974.

Cited as a "technical paper" on the process of designing and building northern communities, this report is a summary publication of a 1973 conference jointly sponsored by l'École d'Architecture de l'Université de Montréal, le Centre d'Ingénierie Nordique de l'École Polytechnique and the Arctic Institute of North America. In general, topics as varied as federal government policy in the North to housing design for the northern community are discussed as significant to the development of the North. While the editors declined the opportunity of making a broad policy statement, they did indicate that in their opinion the continued development of the Canadian North would, for the foreseeable future, be dependent upon the exploitation of non-renewable resources.

Goering, P. *A Critique of the Northwest Territories Housing Corporation*. Toronto, 1985. (mimeo).

Prepared in response to the "Interim Report of the Special Committee on Housing," this report is a critical evaluation of N.W.T. housing policy and programs. In suggesting that the "Northwest Territories Housing Corporation is doomed to failure," the author calls for the redesign of the whole housing process. Particularly critical in this regard is the decentralization of the housing system, allowing greater input from the community level. In some detail the author offers a description of a "designer training" Pilot Project which was implemented in the Northwest Arctic by the firm in an effort to provide a vehicle for local participation.

Goering, P. and P.B. Bechtel. "The Single Worker, Housing and Communal Problems in an Isolated Resource Based Community." In *The Northern Community: A Search for a Quality Environment*, ed. T.S. Vinson. (New York: American Society of Civil Engineers, 1981).

In suggesting that "single worker accommodations in mining communities are problems of worldwide dimension," Goering and Bechtel offer a detailed discussion of the particulars of Pine Point, Northwest Territories housing. Using a questionnaire styled

survey, the authors queried approximately forty-three single men, as to housing needs at Pine Point. Their findings which proved quite conclusive, provided the impetus for the mining company to relocate single worker's housing away from the community centre. Innovative design techniques also reflected the surveys findings, and the newly constructed "bunkhouses" were more clearly geared to the needs of the inhabitants.

Goldberg, M.A. *The Housing Problem: A Real Crisis?* Vancouver: University of British Columbia Press, 1983.

Written as a "primer on housing and housing markets," this monograph provides a broad overview of the circumstances of Canadian housing. Discussing issues such as housing prices and rents, mortgage availability and cost, residential land availability and cost and property taxes and maintenance, Goldberg presents a *potpourri* of Canadian housing problems. The author's conclusions, however, suggest that "there is no substantial housing crisis in Canada" and further that the quality of housing stock "has improved dramatically during the last three decades."

Goldberg, M.A. and J.H. Mark. "The Roles of Government in Housing Policy: A Canadian Perspective and Overview." *Journal of the American Planning Association* 51 (Winter 1985).

Although this paper is a comparative study of Canadian and American housing policies, it offers a good overview of Canadian housing policy. In suggesting that Canadian housing programs are far more decentralized than their American counterparts, the authors document the growing involvement of provincial, regional and local governments in the Canadian housing process. Detailing the impact of programs such as provincially instituted "tax/oriented supply-side programs" or agencies such as regional planning commissions or the land-use controls exercised by most local governments, Goldberg and Mark underscore the local component of Canadian housing programs.



Goliger, G. "Arctic Housing Update." *Habitat* 24, 1 (1981).

Goliger's paper is a concisely written assessment of northern housing. Tracing the history of Arctic accommodation from 1950 to the present, the author follows the plight of the scrap constructed shack, the one-room matchbox styled house, the suburban three-bedroom bungalow and the prefabricated house through to the more acceptable energy-efficient housing units. Applauding the activity of the Northwest Territories Housing Corporation, Goliger suggests that the Corporations "experimental houses" will eventually allow all northern families to "live in comfort."

**Government of the Northwest Territories.** *An Integrated Housing Policy for the Northwest Territories.* A report prepared for the N.W.T. Housing Corporation, 1976.

Prepared in response to the inadequate housing conditions found in the Northwest Territories and in an effort to "provide decent shelter for all people," this report attempted to facilitate the implementations of an "integrated housing policy." Citing problems such as overcrowding, poorly constructed housing stock and the lack of maintenance servicing, the report recommended a massive overhaul of the delivery process. Calling for the construction of 3,110 "units of social family housing," the rehabilitation of 625 units and the development of a capital fund for Land Assembly, the territorial government was clearly placed at the centre of the housing market.

**Government of the Northwest Territories.** *Pond Inlet Community Plan.* Yellowknife: Government of the N.W.T., 1983.

In suggesting that the purpose of the study was to provide for the "controlled and logical" growth of the Hamlet of Pond Inlet, this report attempts to gauge the future social and economic needs of the community. Of particular importance in this regard is the issue of residential development and the associated problems of forecasting housing needs. In predicting the potential construction of approximately eighty housing units over the course of a fifteen year period, the report clearly articulates

some of the more fundamental northern housing constraints. Noting both the "scarcity of land for housing" and the "lack of proper housing design," the report calls for the creation of five residential areas and the construction of a mix of housing types. The contemporary nature of the report is reflected by the attention given to maximizing solar gain and minimizing snow drifting in the residential areas.

**Government of the Northwest Territories.** Legislative Assembly. *The Final Report of the Special Committee on Housing.* 1985.

Cited as a "comprehensive and detailed review" of housing in the Northwest Territories, this report was largely initiated as a response to the "top-down" planning process of the Northwest Territories Housing Corporation. Detailing the "weakness and errors" of the Corporation's construction program, the study attempts to provide a greater role for local housing input. In suggesting that "progress towards community development is directly linked to community control over program delivery," the report calls for a more responsive housing authority. It also provides some interesting statistics on housing stock, labour force activity and real wages.

**Government of the Northwest Territories.** Task Force on Employee Housing. *Task Force Report on Employee Housing.* Yellowknife: Government of the Northwest Territories, 1979.

Appointed in January 1979 to investigate the circumstances of government staff housing in the Northwest Territories, this Task Force was a tripartite organization composed of representatives from the Department of Personnel, the Public Service Association and the Northwest Territories Teacher's Association. Detailing twenty-five recommendations on the subject of staff housing, the report called for greater government intervention in the provision of housing and housing services. Ranging in scope from accommodation allowance to the provision of furniture for staff houses, the conclusions drawn clearly point to a need for the upgrading of facilities.

**Government of the Northwest Territories.** Task Force on Housing. *Task Force Report on Housing*. Yellowknife: Department of Local Government, 1972.

Recognized as a pivotal document in the formulation of housing policy in the Northwest Territories, this report dictated the direction of policy well into the 1980s. As a response to the "quickening" pace of development, the Task Force recommended the creation of the Northwest Territories Housing Corporation. Established largely to consolidate housing programming in the Government of the Northwest Territories, the Corporation not only assumed responsibility for the Northern Rental Housing Program's 2,200 units but also adopted a "participating role" in the continued development of housing.

**Government of the Northwest Territories.** Northwest Territories Housing Corporation. *Western Arctic and Mackenzie Housing Conference Report*. Hay River, N.W.T.: Northwest Territories Housing Corporation, 1979.

The Western Arctic and Mackenzie Housing Conference from which this report emanated, was convened in an effort to provide a forum for the discussion of housing and housing related issues. Drawing delegates from the Inuvik, Hay River and Yellowknife districts, the conference was further intended to offer local representatives a "better understanding of the policies and objectives of the Northwest Territories Housing Corporation." The proceedings are divided into two sections with the adopted resolutions providing a focus to the issues and the conference agenda offering a detailed examination of the subject matter. The agenda, perhaps most pointedly, allows for an overall appraisal of housing policy in the N.W.T. Documenting such issues as rent equalization, home maintenance and fuel subsidies, the conference agenda is a valuable gauge of local housing concerns.

**Graburn, N.H.H.** *Lake Harbour, Baffin Island*. Ottawa: Department of Northern Affairs and National Resources, 1963.

The study of Lake Harbour is the study of a community in transition. Exacerbated by the rapid rise of Frobisher Bay as a regional centre, Lake Harbour has undergone an equally rapid process of depopulation. The continuing viability of the community, however, is directly related to the continuance of traditional pursuits. A large majority of the remaining 100 inhabitants are still involved in hunting and fishing as their primary economic activity. Indeed, the whole structure of community is a regionally based economy that shifts from out-camps to the Lake Harbour setting on a hunting or fishing season basis. If the sense of community is to be maintained, Graburn argues, it is necessary to provide support services that will allow the inhabitants to follow their traditional pursuits.

**Grainage, J.W.** "Water Disposal: Piped Systems for Small Communities." In *Building in Northern Communities*, ed. M. Glover. A report on a conference held at the University of Montreal, 1973. Montreal: Arctic Institute of North America, 1973.

Through the discussion of water servicing in the Northern community, Grainage effectively argues for the "compactness" of townsite design. Emphasizing both costs and the variety of maintenance problems encountered in the northern environment, the author details the benefits of the compact layout. Included in the discussion is the "multi-functional" town centre complex, high density housing and the creation of recreational facilities on the town periphery. Of particular interest, in terms of designing the northern community, is the author's recommendation that the townsite, where possible, "should be built on a southern slope."

**Gray, J.A.** *Stability of Employment and Production within Canadian Resource-Based Industries*. Series 2. Report No. 23. Winnipeg: Centre for Settlement Studies, University of Manitoba, Winnipeg, June 1975.

Using the Statistics Canada monthly data series on employment and production, Gray assesses the relative stability of Canada's resource industries. In suggesting that the "majority of single-enterprise or single industry communities in Canada are resource based," the author argues that the

stability of these industries "is of concern for Canada generally." The author's conclusion supports the general assumption that resource industries "as a group" are somewhat less stable than manufacturing industries. At the same time, however, Gray maintains that if the two industries of forestry and iron mining, are dropped from the resource group there is little difference between industries.

**Grimes, D.R.** "Leaf Rapids Planning and Construction." *The Canadian Mining and Metallurgical Bulletin* (April 1975).

D.R. Grimes, Director of W.L. Wardrope and Associates Ltd., engineering and design consultants, provides an insightful overview of the Leaf Rapids project. Highlighting the effort made to "minimize" the environmental damage caused by townsite development, Grimes details both the planning and construction stages of development. Of particular interest is the authors' description of the town centre complex. The 210,000 square foot, multi-purposed facility was in many respects precedent setting.

## H

**Hancock, M.L.** "Policies for New Towns: Policies Problems, and Prospects in Legislation, Design and Administration." *Ontario Housing II*, 3 (1965).

In a published version of a paper delivered before the joint conference of the American Society of Planning Officials and the Community Planning Association of Canada, Hancock discusses the place of new town planning in Canadian urban development. While suggesting that the new town concept requires "distinct re-appraisal" as a result of post-war expansion and the proliferation of the automobile, Hancock still defines a major role for new town design. This is particularly true of its application in the metropolitan region -- although the author does make passing reference to the "frontier" community. Hancock's conclusions appear to call for the greater participation of "senior governments" in the implementation of new town programs.

**Hanson, R.** "Issues in Democratic Development of New Towns," *Ekistics* 34 (August, 1972).

In arguing that "little thought has been given to governmental arrangements" for the development of new towns, Hanson highlights what he terms as the "basic" needs of the new town. Calling for the greater recognition of local democracy, the author maintains that many of the problems inherent in the new town phenomenon could be eliminated through self-government. For example, Hanson argues that local decision making would help to improve the character of community services available in the new town.

**Hawkins, R.L. and I.P. Klassen.** "Planning and Development of the Thompson Project." *The Canadian Mining and Metallurgical Bulletin* LXVII (November 1964).

Relating "some of the engineering and design considerations" of the Thompson project, R.L. Hawkins, Chief Engineer and I.P. Klassen, Chief Metallurgist, provide a good overview of the Thompson schedule for development. Although much of the study is devoted to the pre-planning process, the authors do focus on features such as power and water supply. Hawkins and Klassen's company perspective allows for valuable insight into the contemporary company town.

**Hedlin Menzies and Associates Ltd.** *Thompson, Manitoba: A Historical Impact Analysis of Resources Development.* A report prepared for the International Nickel Company of Canada. Winnipeg: Hedlin Menzies and Associates Ltd., 1970.

With the broadly defined goals of attempting to "describe the impacts on the economy, and appraise the importance of the Thompson development to the region, the province and the country," this report offers a far reaching interpretation of the Thompson case study. The conclusions suggest that the greatest share of benefits accrue to the national economy, rather than the community. Nonetheless, the impact of the mining venture on the region and, more specifically, on the community was pervasive. The \$14.5 million contribution of Inco to townsite developments over the ten year period from 1958

to 1968, defrayed a major portion of community expenses.

Heinke, G.W. *Report on Municipal Services in Communities of the Northwest Territories*. Ottawa: Department of Indian and Northern Affairs, 1974.

Detailing the provision of a variety of municipal services in communities such as Aklavik and Fort McPherson, this study provides valuable insight into community infrastructures in the Northwest Territories. Water provision, sewage disposal and garbage collection are all discussed as integral features of community development. So, too, is housing which is dealt with in descriptive fashion. For certain communities (i.e., Cambridge Bay) a special note is made of the need for not only housing, but for larger housing units.

Henderson, D.G. "Community Planning of the Townsite of Thompson." *The Canadian Mining and Metallurgical Bulletin* LXVII (November 1964).

Henderson, former Director of Municipal Planning for the province of Manitoba, reviews the "background of the Thompson Townsite project and the number of design factors which influenced the form and pattern" of the community, thereby developing a most detailed appraisal of the Thompson planning initiative. Commencing with the general agreement of 1956, Henderson traces the development of the community through to the "Execution of the Plan" in 1958. One of the major points is the co-operative nature of the development process and the seemingly congenial working relationship that existed between Inco and the provincial government.

Hercz, A.V. "Residential Land Use Planning and Housing in Whitehorse, Yukon Territory: Public Involved in the Land Development Process." Ph.D. thesis McGill University, 1985.

Hercz's thesis provides a thorough description of contemporary Whitehorse. Concentrating on the post-1960 era of development, the author underscores the central place of government in territorial community planning. Although Hercz applauds

the often progressive approach to community development taken by government, she concludes with the suggestion that planning policy requires a more realistic long-term focus. She recommends the consideration of "alternative development possibilities" in order to cope with the unpredictable Yukon economy.

Hess, E. "Native Employment in Northern Canadian Resource Towns: The Case of the Naskapi in Schefferville." M.A. thesis, McGill University, 1984.

Although Hess's thesis focuses on the community of Schefferville, Quebec, the findings could easily be drawn from any one of a number of northern resource towns. This is particularly true of the correlation she draws between the availability of adequate native housing and the "absence of a permanent core of workers in the native labour force." In many respects the native population of the resource community still sits on the periphery of the established settlement.

Hewitt, J.A. "Living-In Gillam and Looking-To State Contradictions: Structuration In a Single- Industry Town." Ph.D. thesis, Carleton University, Ottawa, 1986.

Using the concept of underdevelopment Hewitt offers a detailed overview of Manitoba's largest hydro-town. Defining the community of approximately 1,500 residents as an "entrepôt," the author argues that Gillam is something of an agent in the transmission of middle class values. To this end, Hewitt provides a thorough inventory of community services and further, underscores the instant quality of the townsite. In terms of residential development the author describes "five distinct areas." Ranging from "Snob Hill" to the "Swamp," the residential districts feature a wide variety of house type. From the "double-wide" to the two-storey home, accommodation in Gillam reflects the inequities of the community.

Hilderman, Witty, Crosby, Hanna and Associates. *Housing Needs Analysis: Final Report*. Prepared for the Northern Flood Communities in associ-

ation with Reid Crowther Partners, Winnipeg, 1987.

Examining the housing needs of the five Northern Flood Communities of Cross Lake, Nelson House, Norway House, Split Lake and York Landing, this study assesses future housing requirements as well as analyses current housing conditions. Using both detailed survey questionnaires and updated band lists, the consultants have compiled a most thorough data base for the study of NFC housing stock. Of particular importance to their interpretation of housing need are the issues of new family formation and overcrowding. Projecting that a total of 1,158 new units will be required in the five communities by 1996, the report paints a fairly bleak picture of current housing stock.

Hilgers, L.A. *The Climate Imperative: Some Implications for Building in the Arctic and Subarctic Regions*. A Report Prepared for Architectural and Urban Programming and Management, 1978.

Cited as a "general overview of the climatic characteristics and their resulting physical implications for building and development in subarctic and arctic areas," this study concentrates on the design implications of the harsh northern environment. Focusing on the problems associated with windchill, snowdrifting and thermal-bridging, the author documents several contemporary design innovations that are intended to overcome the obstacles of building in the North. Specifically referring to "peat moss panels," "stackwalls" and "stabilized soil walls," Hilger clearly calls for the implementation of a truly northern building science. Of some interest, as well, are the two case studies presented by the author as sensitive responses to the "climate imperative." Both Resolute Bay and Leaf Rapids are discussed as positive examples of a distinctly northern building approach.

Himelfarb, A. *The Social Characteristics of One-Industry Towns in Canada*. Study No. 30. Ottawa: Royal Commission on Corporate Concentration, 1977.

In suggesting that the "central fact of life" in a single industry community is dependence, Himelfarb argues that the social complexion of the single

industry town reflects the overwhelmingly dominant role of the "company." The so-called "system of stratification" is, according to Himelfarb, "based on the occupational hierarchy within the company." Other characteristics traditional to the one industry community which are beyond the control of the company, but at the same influence the shape of society, include physical isolation, the size of the community and the local climate.

Hobart, C.W. "Impact of Resource Development Projects on Indigenous People." In *Resource Communities: A Decade of Disruption*, ed. D.D. Detomasi and J.W. Gartrell. Colorado: Westview Press, Inc, 1984.

In a good, sociological overview of the confrontation between the traditional native culture and the industrial society of the twentieth century, Hobart provides an historical account of the impact of resource development on the native community. Beginning with the Rankin Inlet experience of 1958, the author traces the evolution of native employment programs through to the more contemporary Rabbit Lake project. He concludes that the "suburban" style community does not meet the housing needs of the native population, and suggests a program of "short duration, rotation employment."

Hobart, C.W. "Commuting Work in the Canadian North." Paper presented at conference on Commuting and Northern Development, Saskatoon, Saskatchewan, 1979.

Hobart's study which concludes that the remoteness of some northern work sites make a commuting mode of employment the most "feasible and efficient" form of development, draws attention to contemporary community design for the North. The non-permanent townsite, whether in the form of demountable housing or trailer-styled accommodations, is determined to be a logical method of housing workers involved in the exploitation of a non-renewable resource. Describing the specific circumstances of the Pan Arctic, Hire North, Nanisivik, Collins Bay and Gulf Oil operations, Hobart contrasts long term work periods with those of shorter duration to imply that a work period of

longer than twenty days in the camp setting is counter productive.

Hobbs, W.E. "Planning New Towns in Northern Manitoba." *Journal of the Town Planning Institute* VIII (August/October, 1929).

Hobbs, surveyor and townsite engineer for northern Manitoba, defines provincial government policy concerning the development of single industry towns. This was particularly pertinent in 1929 as the federal government was in the process of finalizing the transfer of natural resource management to the provincial government. In general, Hobbs suggests that the province of Manitoba initially adopted a regional planning approach to single industry towns. In this fashion the provincial government clearly articulated a northern development policy.

Hodge, G. and M.A. Qadeer. *Towns and Villages in Canada: The Importance of Being Unimportant*. Toronto: Butterworths, 1983.

Although the authors provide only a brief discussion of the northern community phenomenon, they do offer an excellent overview of the small town experience. In the process, they also suggest that the single industry community is an integral part of Canada's small town heritage. For example, the themes pursued by Hodge and Qadeer such as "regional relations" or "the social environment" assess the similarities between Canadian small towns and single industry towns.

Holland, C. "Central Arctic Settlements." *Canadian Geographic* 86 (1973).

In suggesting that "inadequate housing is one of the biggest problems facing most Central Arctic settlements," the author documents the less than adequate living conditions found in several northern communities. Acting as the media representative in N.W.T. Commissioner Stuart Hodgson's investigative tour of the North's small settlements, Holland recounts her first hand experience. Visiting communities such as Coppermine, Sachs Harbour and Gjoa Haven, Holland discusses the issues of overcrowding, cultural conflict and social welfare.

*Homes for Our People*, Métis Nation of Saskatchewan, 1970.

Arguing that Saskatchewan's Métis people "have been forced . . . to live on the fringes" of society, this report attempts to address what it describes as an historical wrong. Its conclusion which offers in the way of a solution, "a program of housing," is based on the findings of a detailed survey which underscored the less than tolerable living conditions encountered by the Métis population. Sampling 517 households in 82 communities, the survey indicates that the vast majority of units were undersized, overcrowded, poorly serviced and old. The five point housing program which considered everything from a low income clientele to a rotating maintenance fund, was designed as the first stage of cultural revitalization.

"Housing by and for Inuit," *Inuit Today* 5, 10 (November 1976).

Tracing the history of the Inuit Non-Profit Housing Corporation, this paper clearly supports the activity of the Inuit self-help endeavour. Indeed, in arguing that it has been only in the last twenty-five years that the Inuit peoples "have not been totally self-sufficient in satisfying their own housing needs," the study implies that many of the current housing problems encountered by the Inuit are the result of government intervention. In any event, and by documenting the role of INPHC in providing for the housing needs of the Inuit population, the paper builds a strong case for local initiative. This initiative, which in the case of the INPHC ranged from the Board of Directors to the actual construction of the housing units, was the foundation of the non-profit organization.

"Housing for Métis and Non-Status Indians," *Housing and People* 7, 3 (Fall, 1976).

Tracing the evolution of the Métis and Non-Status Native Housing Program from approximately 1969 to 1976, this rather brief paper documents the federal government's "ineptitude in delivering native housing." Although the study applauds the early efforts of Robert Andras as the Minister responsible for CMHC, it argues that whatever

innovations introduced by Andras were short-lived. Citing problems such as data collection, constitutional uncertainty and a general disinterest in native issues, the author clearly paves the way for native activism. Presenting examples such as the Winter Warmth Program on the Native Cadre training program, the underlying theme of the paper is self-help.

*Housing Needs in Northern Saskatchewan.* Saskatchewan Housing Corporation, 1985.

This report is the Saskatchewan Housing Corporation's response to increasing demands for northern housing need assessment. Based upon the findings of a so-called "northern tour," the corporation has attempted to evaluate northern housing conditions with a view to determining: housing demands; present and future housing programs; and existing administration practices. Although on occasion lacking in detail, the study provides valuable insight into the northern housing process. Not only are its findings applicable to Northern Saskatchewan, but in a general way to the North at large. In this regard, for example, home maintenance programs, program dissemination and the financing of alternative heating sources are all useful, northern responses to housing problems.

*Housing Workshop and Group Seminar, Alternative for Incorporated Northern Communities.* Proceedings of a seminar held in Thompson, Manitoba, 12 February 1975.

The seminar upon which these proceedings were based was convened in an effort to provide a forum for the discussion of northern housing issues. Attracting a cross-section of participants, topics discussed ranged from financing problems to the design of mobile home parks. One of the more intriguing ideas presented concerned the creation of a "Northern Housing Development Bank." Proposed as primarily a lending institution, the development bank would also function as an information centre, disseminating both technical and design oriented information.

*Housing Requirements: 8 Yukon Communities,* A report prepared for the Rural and Remote Housing Group, Yukon Territory by BCRH, Vancouver, 1975.

In an effort to determine the housing needs and demands of eight selected Yukon communities, the Rural and Remote Housing Group commissioned this largely descriptive report. Focusing on the communities of Carcross, Pelly Crossing, Teslin, Mayo, Dawson City, Upper Laird, Watson Lake and Ross River, the study offers well rounded community profiles as the crux of its analysis. At the same time, however, and particularly in the way of summary recommendations, projected housing need and demand are eventually articulated. In general, the conclusions drawn support the notion of greater community involvement in the housing process. This is particularly true of the native community where the greatest housing need was found.

**Hulchanski, J.D.** *Shelter Allowances and Canadian Housing Policy: A Review and Evaluation.* Research Paper No. 147. Toronto: Centre for Urban and Community Studies, University of Toronto, December 1983.

With the preface that "shelter allowances have become the focus of a great deal of policy debate," Hulchanski examines the issue of housing subsidy mechanisms. Defining both a "market welfare" and a "social welfare" approach to the shelter allowance question, Hulchanski argues for a fuller interpretation of social welfare programming. This he suggests would allow for a greater understanding of the subsidized housing problem and in turn the rejection of the market welfare scenario.

**Hulchanski, J.D. and G. Drover.** *Housing Subsidies in a Period of Restraint: The Canadian Experience, 1973 to 1984.* Research and Working Paper No. 16. Winnipeg: Institute of Urban Studies, University of Winnipeg, 1986.

Although not directly related to issues of northern housing, this study by Hulchanski and Drover provides one of the best reviews of contemporary housing policy. Describing the years 1973 to 1984 as the "most volatile ever in the history of Canada's

subsidy programs," the authors chronicle the waves of government intervention. Although the study describes varying degrees of government involvement over the ten year period, it concludes that government housing policy was at best a "quick fix."

**Hull, Jeremy.** *An Overview of Registered Indian Conditions in Manitoba*, a report prepared for Indian and Northern Affairs, Ottawa, Canada, 1987.

One of a series of reports prepared under the tutelage of INAC, this study is a tremendously valuable accounting of the living conditions confronted by Manitoba's native peoples. Utilizing 1981 census data, Hull documents everything from demographic variables to employment and income. Of particular interest are the authors findings concerning the physical characteristics of Indian housing. Examining the number of persons per room, the condition of the dwelling, the age of the dwelling, type of heating and the number of dwellings with bathroom facilities, Hull paints a fairly bleak picture of native housing conditions. Arguing, for example, that a "large portion" of the units were overcrowded or that 56 percent of the houses on-reserve were without indoor bathroom facilities, Hull clearly makes a statement for remedial programming.

**Hutcheon, N.B. and G.O.P Handegord.** *Building Science for A Cold Climate*. Toronto: J. Wiley and Sons, 1983.

Hutcheon, former Director of the Division of Building Research and Handegord, Principal Research Officer, NRC have compiled one of the most comprehensive studies of northern building science ever written. Divided into fifteen topical sections, this volume touches on everything from "People and Their Building Requirements" to "Heat Transfer." Although the scientific detail at times is overwhelming, the authors present a good case for a uniquely northern building science. Of particular interest in this regard is the discussion of water-vapour transmission, ventilation requirements, control of solar radiation and wind-related problems.

*Improving Housing Conditions in Remote Small Communities and Rural Areas*, An Investigation for Canada's Mortgage and Housing Corporation, IBI group, Toronto, 1980.

Focusing specifically on the quality of "housing design and construction in hinterland areas in mid and southern Canada," this report was prepared as a partial evaluation of the Rural and Native Housing Program. Recommending the establishment of a strictly northern set of building guidelines, the development of a "how to" manual for less experienced builders, the close and more regular inspection of northern building sites, flexibility in program approval and a wide variety of design innovations, the author clearly strikes at the heart of the Northern housing problem. Although much of the commentary has been voiced before, the consultants attempt to cover the subject matter consisely is well rewarded.

**Innis, H.A.** *Settlement and the Mining Frontier, Canadian Frontiers of Settlement*. Vol. IX. Part II. Toronto: Macmillan, 1936.

Innis' study of the mining frontier incorporates the theme of the staples approach. The author readily equates the method of mineral production with the physical form of community. The much maligned "stamping effect" is perhaps most evident in the boom town of Cobalt and the Porcupine gold district. In more general fashion, Innis attempts to portray the mining frontier as a heterogeneous economic region, and in doing so, underscores the regional quality of the resource community phenomenon.

**Institute for Northern Studies.** *Settlements of Northern Saskatchewan*. Saskatoon: Institute for Northern Studies, University of Saskatchewan, 1975.

Published as part of the Institutes' Northern Information Program, this report provides community profile information for 46 Northern Saskatchewan communities. Ranging in size from the small Cree community of Otter Lake with twenty-two inhabitants to the regional centre of La Ronge with a population of 2,901, the communities studied (with one or two exceptions)



offer a complete inventory of northern settlement. Documenting residential power rates, recreational facilities and business establishments, the report is a valuable descriptive account of the northern community phenomenon.

*An Introduction to Housing Conditions in Canada's Arctic and to the Inuit Non-Profit Housing Corporation*, Ottawa: Inuit Non-Profit Housing Corporation, n.d.

With a view to providing "some perspective on housing conditions in Inuit settlements" and to offering recommendations "for alleviating the worst housing conditions," the Inuit Non-Profit Housing Corporation undertook the preparation of this brief but succinct policy statement. Arguing that housing problems in the Inuit community were twofold: inadequate housing production levels and little or no local input into the "type, design and quantity of housing delivered," this report clearly recommends a reworking of government housing policy. Maintaining further that the "only alternative source of community housing is the Inuit Non-Profit Housing Corporation," the authors call for greater collaboration in the housing process.

**Izumi, K. and G.R. Arnott.** *A Guide for Development: Uranium City and District*. Regina: Department of Municipal Affairs, May 1956.

Described by the authors as a "Planning Report for Uranium City," this study was undertaken by a firm of planning consultants in an effort to coordinate post-1956 community expansion. Izumi and Arnott provide some background on the history of the Beaverlodge Lodge Development Area and further trace the exploitation of the uranium field from approximately 1946 to 1955. Their recommendations which include provisions for native housing, emphasize continued subdivision planning of the townsite area within a larger regional framework.

## J

**Jackson, J., E. Winston and N.W. Poushinsky.** *Migration to Northern Mining Communities: Structural Psychological Dimensions*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1971.

One of many studies conducted by the Centre for Settlement Studies at the University of Manitoba, this report was undertaken in an effort "to understand migration to and from single industry Northern Ontario mining communities." Using survey styled questionnaires, the author isolated the mining towns of Manitouwadge, Balmertown, Cochenour and Madsen. Their conclusions suggest that northern mining towns tend to accommodate a younger population with greater ethnic diversity, from a heavily rural background who seem to be more willing than the average person to relocate.

**Jacobsen, G.** "Canada's Northern Communities." *North* 15 (November/December 1968).

In a summary report of a paper delivered at the Fourth National Northern Development Conference, Jacobsen describes what is defined as "the northern urban scene." In doing so, he depicts two typical northern towns. The resource extracting town is described by Jacobsen with much disdain for its failure to take into account the "special" conditions of the northern community. The wide-winding streets, the single-family dwellings and the open parkland are all described as poor responses to the northern environment. The "true arctic town," while treated as a more positive response to the North, also fails to completely meet the needs of the northern environment.

**Janssen, W.P.** "The Impact of Public Institutions on Rural Housing Investment in the Prairie Provinces." M.A. thesis, University of Saskatchewan, 1964.

In arguing that the "failure of the NHA to stimulate construction in the rural areas is intimately connected with its failure to reach the low income groups," Janssen clearly focuses on the economic aspects of rural housing. Although much of the

supporting evidence incorporated in the thesis is now quite dated, the author's conclusion that the "inability to pay" is the principal reason why *NHA* programs have not been implemented in rural areas, appears quite valid. Of some interest, however, is Janssen's contention that "higher income groups prefer to be tenants rather than owners" in rural districts.

Jarvis, G. K. *An Overview of Registered Indian Conditions in Alberta*, A report prepared for Indian and Northern Affairs Canada, Ottawa, 1987.

One of the fourteen studies in the *Overview Series on Registered Indian Conditions*, this report, like most of its counterparts, attempts to document the regional complexion of native living conditions. Describing the geographic distribution of the population, family size, mortality rates and labour force activity, Jarvis offers a reasonable overview of native living conditions in Alberta. In terms of actual housing conditions, Jarvis argues that the bulk of on-reserve housing stock is overcrowded, requires major repair and lacks both central heating and bathroom facilities. In general, he maintains further, that housing conditions "should be a high priority" item for improvement.

Jarvis, G.K. *An Overview of Registered Indian Conditions in Saskatchewan*, A report prepared for Indian and Northern Affairs Canada, Ottawa, 1987.

The second of two reports prepared by Jarvis in the *Overview Series*, this study documents the circumstances of the Saskatchewan native community. Although Jarvis discusses a variety of issues in his analysis of Saskatchewan, his interpretation of housing conditions are of particular interest. Detailing factors such as the length of occupancy, tenure of housing, gross rent and house payments as a proportion of household income, the author chronicles the less than tolerable living conditions encountered by the native population. The "inadequate housing on-reserve" in Saskatchewan should be, according to Jarvis, a "high priority for improvement."

Johnson, O.B. *A Study of Churchill, Manitoba*. Ottawa: Department of Northern Affairs and National Resources, 1960.

In the style of a community profile, this study of Churchill provides a thorough overview of community facilities. Apparently intended as a review of "development-possibilities," the report underscores the central place of the federal government in future development plans. In terms of community facilities, the study documents the multi-faceted nature of the townsite. This is particularly true of the several distinct settlement areas located within the district and the problems encountered therein. The tide flats, the Chipewyan housing project, Akudlik, Fort Churchill and the Churchill townsite itself are all described as contributing to the less than tolerable townsite conditions.

Jones, M.V. *Churchill Development Plan, Phase 1*. Toronto: Murray V. Jones and Associates Ltd., 1968.

With the preface that "the people of Churchill live amidst such wretched conditions that their plight is probably unequalled anywhere in the country," this report was clearly intended as a re-development plan for the community of Churchill. With the assistance of W.G. Wardrop and Associates Ltd. the final recommendation proposes the creation of a totally new townsite. Rejecting the established townsite, Fort Churchill and the four other identifiable communities in the district, the report concludes that the most feasible solution to the townsite problem is a brand new townsite.

Jordan, D.F. and G.N. McDonald, eds. *Cold Regions Construction*. A state of the practice report prepared by the Technical Council on Cold Regions Engineering of the American Society of Civil Engineers. New York: American Society of Civil Engineers, 1983.

Composed of eight papers originally presented at the American Society of Civil Engineers Annual Convention in 1983, this volume addresses the issues of "cold region construction" practices. With topics ranging from pile construction to quality assurance to cold region safety, this study

does indeed provide a reasonably thorough discussion of northern building issues. Although much of the text is quite technical in its jargon, the so-called "state-of-the-art-practice" approach to northern construction techniques is most appropriate. The one central theme that appears to dominate the discussion is flexibility in the building process.

## K

**Keilhofer, P. and J.W. Parlour.** *New Towns: The Canadian Experience.* Ottawa: Ministry of State for Urban Affairs, 1972.

Although the authors maintain that "it is not possible to present a cohesive overview" of new town policy, their study is an attempt to provide such an overview. Defining two types of Canadian new towns, the "developmental" or the resource town and the "restrictive" or satellite community, Keilhofer and Parlour not only discuss the historical context of the new town phenomenon but also present something of a policy statement. They conclude with a call for greater federal government involvement in the development of an "overall national urban growth policy."

**Kemp, W.B., G. Wenzel, N. Jensen and E. Val.** *The Communities of Resolute and Kuvinaluk: A Social and Economic Baseline Study.* A report prepared for the Resolute Community Council, the Kuvinaluk Community and the Polar Gas Project. Montreal, 1977.

Focusing specifically on the regional economy of the district, this study offers an interesting overview of land-use patterns, hunting techniques and resource harvesting. In terms of community development it traces the growth of Resolute from the first stage of the federal government's Inuit relocation program and the more traditional Kuvinaluk from approximately 1920. The contrast therein is intriguing as Resolute was clearly a product of the twentieth century wage economy while Kuvinaluk was based on harvest functions. Of particular note in terms of community development,

was the redevelopment scheme proposed for Resolute and the efforts of the territorial government to plan "an integrated community within a single townsite."

**Kennedy, Li, Simonsen and Smith.** *Housing Study.* Nos. 1-4. Reports prepared for Central Mortgage and Housing Corporation, September 1968.

Described as "4 Booklets" that were prepared for CMHC as part of the Corporation's "housing for isolated communities and Indian reserves in the prairie provinces" initiative, this collection offers an elementary overview of northern housing. Detailing "Ideas for the Home," "House Grouping," "House Type" and "Home Construction," the booklets provide a colourful interpretation of the unique quality of northern housing. Perhaps the most useful of the four volumes is number two -- "House Construction," which describes everything from roll roofing to attic ventilation.

**Kerri, J.** "Fort McMurray: One of Canada's Resource Frontier Towns." M.A. thesis, University of Manitoba, 1970.

Kerri's study of the community of Fort McMurray relates townsite development to the industrial exploitation of the tar sands. He describes the relationship between community growth and the activity of the principal developer, the Great Canadian Oil Sands Company. In doing so, the author isolates the provincial government and its poorly founded community development initiative as it was applied in the community in the post-1952 period. The province, by refusing to implement a comprehensive plan for community development, allowed the townsite to grow in random fashion over approximately 2 1/2 miles.

**Kerri, J.** *The Human Elements in Housing An Evaluation of The Manitoba Remote Housing Program.* A report prepared for the Manitoba Métis Federation. Winnipeg, 1971.

In arguing that "housing conditions in Métis communities across the country are without question the most deplorable in Canada," the Manitoba Métis

Federation clearly articulates the need for more "meaningful [Métis] housing programs." Particularly critical of the Manitoba Remote Housing Program, the report details an extensive list of recommendations which it proposes to more adequately meet the needs of the North. Ranging in scope from senior's housing to family counselling, the recommendations underscore the unique quality of northern housing and further, the unique measures required to fully meet housing need.

**Kew, J.E.M.** "Métis-Indian Housing in Northern Saskatchewan," in *Research Review*. Saskatoon: Centre for Community Studies, University of Saskatchewan, 1963.

In suggesting that the inadequacy of northern Métis-Indian housing, is a "symptom rather than a problem in itself," Kew clearly describes the interrelated nature of northern society. Based upon the results of a 1961 survey of five Métis communities in Northern Saskatchewan, the author concludes that housing inadequacy is the direct result of economic underdevelopment. For example, Kew maintains that an average house size of 340 square feet or conditions of 4.2 persons per room, are "consistent with the level of incomes in the North."

**King, G. M.** "A Consideration of Factors Affecting the Development of La Ronge, Saskatchewan." *Musk-Ox* 5 (1969).

As a summary report of her M.A. thesis, this study identifies what the author terms as the "northern problems" of the La Ronge district. Although King predictably concludes that the region "suffers from low standards of living," she also underscores the "marked disparities" in standards of living. In suggesting that the dichotomy can be identified on the basis of ethnic origin, King clearly defines a distinctly native/Métis population and separate white component. In terms of housing, the author maintains that there is an obvious distinction between the two groups with the native/Métis population living in what she calls "poor housing" on the periphery of the community.

**King, G.M.** "A Geographical Analysis of the Settlement of La Ronge, Saskatchewan." M.A. thesis, University of Saskatchewan, 1968.

La Ronge, Saskatchewan provides the author with a good milieu for the study of northern settlement patterns. Describing the district as a "mixed, fringe multifunctional centre," King cites four separate and yet interconnected settlement areas. Consisting of the village of La Ronge, Indian Reserve 156B, the community of Air Ronge and Indian Reserve 156, the diverse regional complexion of the community is cited by the author as a partial cause of the less than adequate living conditions. Indeed, in maintaining that La Ronge suffers "from the northern problems of poor housing, poor services and overcrowding," King attaches much of the blame to the Indian-Métis population.

**Kloppenborg, A.** "The New Frontier Towns." *Urban Reader* 6, 6/7 (1979).

Kloppenborg's study of new frontier towns is a good contemporary account of the single industry town phenomenon. Concentrating primarily on the post-1950 era, the author discusses everything from windscreening to "cabin fever" in an effort to assess the future of the one industry community. Her conclusions indicate that a feasible alternative to community development can be found in the limited term sleep camp.

**Knoll, H., ed.** *Cold Climates Utilities Manuals*, Montreal: Canadian Society for Civil Engineering, 1987.

Written in an effort "to introduce the basic principles of cold-climate environmental engineering," this manual offers a tremendously detailed overview of cold-climate engineering and construction techniques. Prepared by a seven-member steering committee, this volume addresses everything from heat loss in pipes to contaminant removal in water. Discussing seventeen topical areas, the *Cold Climate Manual* is an up to date compendium of northern building techniques. It is in fact, approximately five hundred pages of essential, technical information, pertinent to the construction of buildings in the northern environment.

Knott, L.C. "Company Housing." *Canadian Business* 21 (March 1948).

In a brief but informative paper, Leonard Knott describes company housing in the single industry community as a "vital part" of employee relations. He further suggests that in the post-World War II era, Canadian employees were learning the "importance of having healthy, happy and satisfied employees." In this regard more and more industries provided not only quality housing facilities but also recreation programs or systems of transportation. Knott, in referring specifically to the community of Red Rock, Ontario and its relationship with the Brompton Pulp and Paper Company, indicates that these services were often regarded as an "unavoidable necessity."

Knowles, J.A. *Socio-Economic Analysis and Projections for Gillam, Bird and Sundance*. A report prepared for Polar Gas Project. Winnipeg: Underwood McLellan Ltd., 1977.

Undertaken in an effort to provide a "socio-economic" profile of Gillam, Bird and Sundance, this report offers a detailed overview of the impact of hydro-electric power development on the northern community. In all three settlements the role of Manitoba Hydro was all pervasive. They exist, as the author argues, "as a direct result of Manitoba Hydro's development." Nonetheless, while the communities are similarly dependent on hydro, there is a great deal of local variation from one townsite to the next. The contrast between Gillam and Bird for example vividly captures the isolation of the northern native community. Gillam on the one hand offered a wide selection of both services and house type -- typical of the company town, while Bird was very much the frontier settlement with "no sewer, water or electrical services" -- more characteristic of the native enclave.

Koerte, A. *Toward the Design of Shelter Forms in the North*. Phase 1: Native Shelter Forms. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1974.

Although this report is essentially a study of traditional native housing forms, it does offer a

number of valid design solutions to the contemporary problems of northern housing. Indeed by suggesting that "a great deal can be learned from the indigenous architecture of North America's native peoples," the author clearly focuses his interpretation on the "principles of adaptation." The numerous so-called "suburban bungalows" encountered in the North, give testimony to the fact that the white population has been slow in responding to the challenge of the northern environment.

Kolker, Y. "Housing in the Soviet North." *North XVII* (March/April 1970).

This paper is a short but concise summary of the "pre-fabricated module concept" as refined by the Leningrad Institute of Design for the Soviet North. Distinct from the Canadian experience where pre-fabricated modules have been incorporated in a horizontal fashion, the Soviet method has been to build "multi-story" prefabricated buildings. A second innovation, at least in comparison to the Canadian example, is the construction of the modules "in assembly-line fashion" at factories located on the building site.

Koroscil, P.M. "Planning and Development in Whitehorse, Yukon Territory." *Plan Canada* 8, 1 (1978).

Koroscil's study of Whitehorse clearly relates the form of community development to the "boom and bust" nature of the local economy. Directly associated with the issues of housing, the cyclical economic pattern has had a dramatic effect on residential development. The various segregated neighbourhoods within the community, for example, evolved during times of prosperity and generally provided residents with a sense of social mobility. The process of invasion and succession ran throughout the community. Whether in terms of the squatter shacks in "Whiskey Flats" or the elite oriented single family dwellings of the Riverdale subdivision, Whitehorse's housing stock reflected the economic wellbeing of the district.

**Krahn, H., John Gartrell and L. Larson.** "The Quality of Family Life in a Resource Community." *Canadian Journal of Sociology* 6 (Summer 1981).

Using a questionnaire styled survey, the authors isolate the community of Fort McMurray, Alberta in an effort to determine "the effects of resource development and rapid social change on family life." Through a sampling of 430 residents, the authors have attempted to assess the correlation between community satisfaction and marital satisfaction, contact with kin and the general satisfaction with support services and services for children. Their conclusions indicate that Fort McMurray is perceived to be a relatively stable community where life is not considered to be overly problematic.

**Krupitsa, K.K. and B.V. Murav'ev.** "Problems of Construction in the Far North." *Problemy Severa* 10 (1964).

In arguing that the level of scientific and technical advancement in northern construction is "far higher in the Soviet North than in the non-Soviet North," the authors document Soviet achievements in northern development. Citing specific examples such as the communities of Noril'sk, Magadan and Vorkuta, the authors describe the use of pile foundations, prefabricated large-panel construction techniques and "floating construction combines." Of particular significance to the northern program is the "mechanization of construction-assembly work" and the seemingly mobile construction factory approach to northern expansion.

## L

**Lagasse, J.H., ed.** *A Study of the Population of Indian Ancestry Living in Manitoba.* Winnipeg: Department of Agriculture and Immigration, 1959.

Although dated, this report provides valuable insight into native culture. Beginning with the treaties of the nineteenth century, the authors trace the increasingly one-sided nature of white-native

relations in Manitoba. Specifically concentrating on the theme of self-help, the authors offer as a partial solution to the problems of cultural disintegration, a community development program. Of particular note, is the issue of government subsidized housing, which is described in some detail by Walter Hlady.

**Laidlaw, A., ed.** *Co-operatives in Canada's Northland.* A report based on the first conference of Arctic Co-operatives held at Frobisher Bay, N.W.T., 1963.

The conference of Canadian Co-operatives, upon which this publication was based, was hosted by the Industrial Division of the Department of Northern Affairs. It brought together representatives of 16 co-operatives from throughout the Arctic, in an effort to provide a forum for the discussion of the organization and administration of co-operatives in the North. Although not directly related to housing, the proceedings provide valuable insight into Eskimo society as well as an overview of the co-operative structure which eventually came to include the provision of housing units. The detailed account of life at Cape Dorset, Coppermine or Grise Fiord allows for a comprehensive understanding of the Arctic environment.

**Lal, R.** "Some Observations on the Social Life of the Chipewyans of Camp 10, Churchill and their Implications for Community Development." *Musk-Ox* 6 (1969).

In describing Camp 10 as a "small, compact and geographically segregated settlement," Lal discusses the unique circumstances of forced urbanization. Of particular note is the disintegration of the nuclear family concept, so important to the native way of life. The author also provides some detail on the physical appearance of the camp which he suggests consists of a "lower" and an "upper" community. The lower camp is described as consisting of "four rows" of large housing occupied by mostly middle-aged couples with children while the upper camp is essentially made up of smaller, one-roomed houses.

Lal, R. "From Duck Lake to Camp 10, Old Fashioned Relocation." *Musk-Ox* 6 (1969).

As former Community Development Officer, Lal provides valuable insight into the relocation program which moved 300 Chipewyan Indians from Duck Lake and North Knife River some 150 miles south to Churchill. The relocation program was carried out by the Indian Affairs Branch in 1957 and the intention was to create a new townsite for the native population in close proximity to Churchill. As the program evolved, however, the native group remained either in the temporary townsite known as Camp 10 or in scattered locations around the main townsite. In suggesting that the whole exercise was an example of "the blind leading the blind," Lal paints a vivid picture of the less than tolerable living conditions encountered by the tribe.

Landa, M.J. "Easterville: A Case Study in the Relocation of a Manitoba Native Community." M.A. thesis, University of Manitoba, 1969.

In examining the relocation program as implemented at Chemawawin in 1964, Landa describes the catastrophic upheaval encountered by the largely native population. Suggesting that much of the conflict was the result of a cultural confrontation between a traditional and an industrial community, the author concludes that the needs of the resettled group were clearly not met in the target community of Easterville. Indeed, even within the framework of a co-operative structure as developed at Easterville, the relocated group encountered difficulties in establishing a sense of community.

Lansdown, A.M., G. Watts and A.B. Sparling. *Housing for the North: The Stackwall System*. Winnipeg: Northern Housing Committee, University of Manitoba, 1975.

This report describes the construction of a "prototype log building of the stackwall type" and its potential as a viable form of northern housing. In suggesting that northern housing is at a "crisis" point, the authors detail the lack of housing units and the difficulty in providing suitable dwellings appropriate for the "peculiar" northern environment. Further arguing that wood frame construc-

tion has major limitations in the North, the authors, as part of the Northern Housing Committee at the University of Manitoba, strongly recommend the stackwall system of building. Erected by stacking short lengths of logs side by side and then applying mortar fill, the stackwall process is described as an "attractive" alternative for northern housing.

Lapp, R.C. "The Migration of New Immigrants into a Single Resource Community in Northern Manitoba." M.A. thesis, University of Manitoba 1980.

Lapp's thesis attempts to come to grips with the problems of labour turnover in the mining industry. In suggesting that the cost of labour shortages and turnover are in the neighbourhood of \$350 million a year, the author maintains that a viable solution to the problem can be found in proper community planning. In this fashion, and by meeting the community needs of the work force, Lapp argues that not only would expenditures be reduced but also community stability enhanced.

Larsson, N.K. *Building Practice Note #55, Energy Considerations in the Design of Northern Housing*. Ottawa: National Research Council, July 1985.

One of a number of technical papers, prepared in advance of the federal government publication, *A Handbook of Northern Canadian Residential Building Practice*, this study concentrates on the issue of energy efficiency. In suggesting that severe climatic conditions and high energy costs and consumption in the North provide a unique challenge to home building, Larsson outlines a variety of northern construction techniques or structural innovations. He recommends the use of the double-stud wall, heat recovery ventilators or triple glazing in an effort to combat the northern climate.

Larsson Consulting. *Development Strategy for Guideline Documents for Northern Residential Construction*. A report prepared for CMHC. Ottawa, November 1985.

In describing the "Measures for Energy Efficient Northern Housing," the report offers what it cites

as "suitable" building requirements for residential construction in the North. Although it does not detail the specifics of building in the northern environment, it does set the stage for future analysis. Calling for the preparation of "three major related publications," the report underscores the central place of CMHC, NRC and DIAND in the northern initiative. The Inventory of Northern Construction Practices, the Northern Design Issues publications and the Northern Technical Issues report were collectively viewed as a crucial ingredient in the development process.

Lash, S.P. "Planning of Recent New Towns in Canada." *The Engineering Journal* 41 (March 1958).

In a paper presented at the Annual General and Professional Meeting of the Engineering Institute of Canada, Lash discusses "the principle involved in building new towns." In suggesting that the new town is essentially a product of the Garden City phenomenon, Lash describes the formative principles of new town design in terms of "use and density zoning, a form of ward or neighbourhood planning, [and the] employment of an agricultural green-belt to control urban size." Citing examples as varied as Elliot Lake, Ontario, Chibougamu, Quebec or Hinton, Alberta, the author provides a thorough analysis of the Canadian new town phenomenon.

Lauder, K. "Planning for Quality of Life in New Resource Communities." M.A. thesis, University of Waterloo, 1977.

Lauder's thesis provides a reasonable overview-literature review of many of the important issues pertinent to the development of single industry towns. Citing factors as diverse as demography, entertainment, medical services and local government, the author maintains that community satisfaction is almost entirely based on the quality of local services. For example, Lauder concludes that communities with good recreational facilities or those that offer regular travel opportunities or even towns that provide a diverse range of housing, tend to allow for greater community contentment.

Lee-Smith, D. "Neglect of the Socio-Cultural Aspects of Housing," *Housing and People* Spring (1975).

Arguing that a "cultural variation in house design and life-style is something that should be expected and encouraged throughout Canada," Lee-Smith maintains that while a house is a physical object it is also a "socio-cultural entity." In the North, however, the house has traditionally been regarded as a physical object and hence problems of housing mismatch have arisen. This, the author suggests, is directly related to the population shift from self-sufficient communities to "employment centres." In any event, Lee-Smith concludes with a call for the greater incorporation of the "socio-cultural dimension" in the housing process.

Legget, R.F. and H.B. Dickens. *Building in Northern Canada*. Technical Paper #62. Ottawa: National Research Council, Division of Building Research, 1959.

Distinguishing the northern building process from "elsewhere in Canada," the authors detail the particulars of building in the northern environment. Citing factors of climate, the unusual terrain and the relative isolation of most buildings, Legget and Dickens discuss the "serious economic and logistic considerations" of building in the North. In doing so they provide valuable insight into a host of northern "construction problems." Building foundations, water drainage, utilidor servicing and even transportation costs are all presented as major variables in the northern construction process.

Leitch, A.F. and G.W. Heinke. *Comparison of Utilidors in Inuvik, NWT*. Toronto: Department of Civil Engineering, University of Toronto, 1970.

Largely based on Leitch's Master's thesis, this study attempts to establish the cost of utilidor service as it relates to town planning patterns for the community of Inuvik. The authors' conclusions indicate that "the very high costs of servicing Arctic communities greatly limits the number of different town planning patterns" that can be reasonably implemented. The Inuvik example further suggests that inequitable utilidor servicing could eventually



lead to community segregation and the breakdown of community cohesion.

Levin, E.A. "Lanigan: A Plan for a New Town." *Community Planning Review*, XIV (Winter 1964).

Levin, former Director of the Province of Saskatchewan's Community Planning Branch, maintains that the Lanigan experience provided the province with the "opportunity for creative political action in the field of urban-industrial development." Under the controlling hand of the provincial government the community of Lanigan blossomed from a small agricultural community in 1961 to a thriving potash oriented town in 1964. The central place of the provincial government in the co-ordination of the development project is well described by Levin.

Lillie, R.G. "Twenty Years of Housing, CMHC 1946-1966." Parts I-IV. *Habitat* IX, 3-XI, 2 (1966-1968).

Lillie's historical overview of CMHC provides a much needed perspective to the federal government's housing policy. Describing everything from "farm housing" to "quality of design and construction," the author provides a balanced interpretation of CMHC activity. In doing so, Lillie identifies the changing form of CMHC policy and attempts to relate policy development to housing needs. For example, the author describes land assembly, urban renewal or even student housing as innovative responses to housing needs.

Linn, H.D. and J.C. Stabler. *Economic, Social and Planning Requirements for Northern Communities*. Regina: Department of Mineral Resources, 1978.

Published under the auspices of the Saskatchewan Department of Mineral Resources, this report was intended to study, identify and evaluate the single industry community phenomenon. With a view to alleviating some of the problems associated with the one industry town the report also tables a number of recommendations. In this fashion and perhaps most emphatically, the authors call for the creation of a single responsible authority to oversee community "decision-making and administration."

Of considerable importance as well are the detailed appendices that form the final third of the study.

Lipman, M. "Housing and Environment." *Habitat* 12, 2 (1969).

Lipman provides a broad philosophical overview of the circumstances of housing supply and demand in Canada. In maintaining that the proportion of single-family housing starts has fallen off dramatically from 1962 to 1968, Lipman argues for a much needed reassessment of Canadian housing needs. In the North and particularly in declining communities, or the so-called "new towns," the author recognizes the "often desperate housing situation." While Lipman offers few solutions to the northern housing problem, he does present a reasonable appraisal of the situation.

Lithman, Y.G. *The Community Apart: A Case Study of a Canadian Indian Reserve Community*. Winnipeg: University of Manitoba Press, 1984.

Focusing on one particular Indian reserve, Lithman documents the network quality of the native community. In doing so, he makes a good case for the regional analysis of native settlement patterns. This is particularly true in consideration of what the author describes as "increased off-reserve residency rates." Viewing the reserve community as the centre of the network, Lithman argues that the movement of people to and from the periphery creates a well established hierarchy of community.

Lithwick, N.H., M. Schiff and E. Vernon. *An Overview of Registered Indian Conditions in Canada*, A report prepared for Indian and Northern Affairs Canada, Ottawa, 1986.

Utilizing the data compiled by the 1981 Census of Canada, Lithwick *et al.* attempt to document "the demographic, social and economic conditions of registered Indians in Canada." Indeed, by providing a detailed overview of the native community, the authors have in fact developed one of the most thorough socioeconomic studies of the native population. The housing component which

documents overcrowding, house costs and method of heating, also provides a well founded assessment of native living conditions. Concluding that native housing was in general far inferior to the so-called "reference population," the authors draw a direct correlation between inadequate housing and the poor health, the less than average earning capacity and the relatively low educational potential of the native population.

Lloyd, T. "The Urbanizing North: Some Comparisons." In *Improving Human Settlements*, ed. H.P. Oberlander. Vancouver: University of British Columbia Press, 1976.

Describing northern settlement in terms of an "oasis pattern" of growth, Lloyd vividly conjures up a sense of northern "emptiness." Further suggesting that urbanization has occurred specifically for social or administrative purposes, Lloyd offers an overview of the impact of modernization. Using comparative analysis, the author demonstrates that government policy in Canada has not only facilitated this scattered form of community but it has also impacted on the traditional pursuits of Canada's indigenous peoples.

Lotz, J. "Inuvik, N.W.T., A Study of Community Planning Problems in a New Northern Town." Department of Northern Affairs and National Resources, Northern Co-ordination and Research Centre. (n.d.) (mimeo).

Lotz, Northern Research Officer for the Northern Co-ordination and Research Centre, provides a detailed and insightful account of the process of "new town" development in Inuvik, Northwest Territories. This is particularly true of the author's discussions of town planning and housing. Dividing the townsite into five sections consisting of a) frontier area; b) unserved area; c) tent town; d) served area; e) single quarters and rental accommodation, Lotz describes both the variety of housing types and the specific living conditions found therein. At the same time, however, he maintains that the townsite gives an overall appearance of "uniform monotony."

Lotz, J. *Northern Realities*. Toronto: New Press, 1970.

Written as an emotional appeal for the manifest destiny of the Canadian North, *Northern Realities* attempts to establish a course for northern development. Subtitled, "The Future of Northern Development in Canada," this volume is very much in keeping with the concept of a regional development strategy. Depicting "two worlds" in the North - the mining towns and the Indian villages, Lotz clearly views the latter as the foundation of northern society.

Lotz, J.R. "Northern Settlements and the Squatter Problem." *North XI* (November/December 1964).

Lotz, who has worked extensively on issues related to northern development, discusses in this paper one of the more fundamental problems of northern settlement -- the squatter. With specific reference to Whitehorse and the three peripheral areas of Whiskey Flats, Moccasin Flats and Sleepy Hollow, Lotz describes the squatter element as an integral part of the northern community. Citing 287 squatter households the author provides a thorough analysis of the quality of housing, range of incomes and ancestral background. His findings imply that in order to eliminate the squatter element a greater range of social planning must be incorporated in the early stages of community development.

Lower, A.R.M. *Settlement and the Forest Frontier in Eastern Canada, Canadian Frontier of Settlement*. Vol IX. Part 1. Toronto: Macmillan, 1936.

Lower's study is an early attempt to apply the staples approach in the analysis of the expanding forest frontier. As such, the author's main theme is not so much forest settlement, but rather, the economy of forest production. Lower does, however, provide some perspective to the phenomenon of the lumber community and indeed, in many cases, he details the particulars of community development to support his claim that it was the lumberman who pioneered the frontier.

"Low-Income Housing in Northern Saskatchewan."  
*Canadian Welfare* 41 (July/August 1965).

In a brief, descriptive account of the joint federal-provincial housing initiative, this passage provides insight into the workings of a most innovative housing program. Primarily designed to "eliminate very poor housing," the program was also intended to "promote economic advancement" in remote areas. Although the housing initiative was based on the theme of self-help through the incorporation of local co-operatives, both governments provided generous funding and support services. The federal government, for its part actually viewed the program as a "pilot project" in the provision of housing services for isolated areas.

Lucas, R. *Minetown, Milltown, Railtown*. Toronto: University of Toronto Press, 1971.

Often cited as the formative work in the analysis of the single industry community phenomenon, *Minetown, Milltown, Railtown* is a sociological study of the character of community. Relying heavily on survey questionnaires, Lucas has determined that the dominant role of the industrial enterprise pervades all aspects of community life. Indeed through the study of well over 600 single industry towns, the author concludes that towns of this nature are "fundamentally different" from the Canadian norm because of the single industry factor.

## M

Macdonald, R. St. J., ed. *The Arctic Frontier*. Toronto: University of Toronto Press, 1966.

A collaborative effort by the Arctic Institute of North America and the Canadian Institute of International Affairs, this volume is a global appraisal of the "Arctic community." Touching on issues such as Arctic sovereignty, scientific relations or the administration of northern peoples the eleven essays included in this volume cover a variety of northern themes. Although housing and commu-

nity infrastructure receive only passing reference, the economic comparisons of northern development provide a useful backdrop for the study of the North.

MacMillan, J.A., P.E. Nickel, and L.J. Clark. *A New Approach for Evaluating Northern Training Programs: The Churchill Prefab Housing Manpower Corps Project*. Centre for Settlement Studies, Series 5. Occasional Paper No. 8. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1975.

In suggesting that "standard benefit/cost models" do not fully gauge productivity benefits of job training, the authors propose a more elaborate social benefit measure as a means of more accurately rating successful programs. Indeed, with specific reference to the Northern Manpower Corps Churchill Prefab Housing Project, the authors maintain that only on the "basis of social benefits" can the project be considered successful. In this vein and through job satisfaction, improved housing standards, greater family satisfaction and improved family nutrition, MacMillan *et al.* argue for the practicality of job training in association with house construction.

MacMillan, J.A., J.R. Tullock, D. O'Brian and M.A. Ahmad. *Determinants of Labour Turnover in Canadian Mining Communities*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1974.

The purpose of this study is defined in the preface as "an attempt to measure turnover for Canadian mines and discover reasons for variations in turnover." Citing an annual turnover rate of sixty-two percent for the mining industry, the authors provide a detailed questionnaire styled survey of the circumstances of labour turnover. Raising questions as varied as the costs of separations, the perceived isolation of the mine site or the quality of housing, the study concludes that in a number of areas the mining companies could reduce turnover with moderate policy changes.

Macpherson, J.E. "The Cypress Anvil Mine," In *Northern Transitions: Northern Resource and Land Use Policy*, ed. E.B. Peterson and J.B. Wright.

Ottawa: Canadian Arctic Resources Committee, 1978.

Tracing the history of the Cyprus Anvil open pit lead mining operation at Faro in the Yukon, Macpherson offers a comprehensive evaluation of impact analysis. Arguing that the "negative socio-economic and environmental impacts" of the project drastically outweighed the positive aspects of the scheme, the author presents a most critical appraisal. At the same time, however, she provides valuable insight into the workings of government policy. This is particularly true of the townsite program which facilitated the development of Faro. The tripartite agreement allowed both the territorial and the federal government to become active participants in the townsite program.

**Macpherson, J.E.** "The Pine Point Mine," in *Northern Transitions: Northern Resource and Land Use Policy*, ed. E.B. Peterson and J.B. Wright. Ottawa: Canadian Arctic Resources Committee, 1978.

Citing the Pine Point project as a good example of the "federal government's changing policies towards northern development," Macpherson documents the central place of resource production in overall policy formulation. Although her assessment of the Pine Point experience is extremely critical, the author's conclusions offer an objective appraisal of the government-company initiative. Detailing environmental concerns, native employment ratios and segregated housing, Macpherson underscores some of the more contentious local problems. The community orientation of the study makes it a valuable contribution to resource town literature.

**Mailhot, J.** *Community Structure -- Inuvik -- Summer 1965*. A report prepared for the Northern Science Research Group, Department of Indian Affairs and Northern Development, 1968.

This study analyzes the community structure of Inuvik with special consideration given to the various community organizations or associations found within the town. Although little thought is actually given to the circumstances of local housing, the author's conclusions suggest that the "basic

feature of Inuvik is the dichotomy, created by differences in housing and services, between a "serviced area" and an "unserviced area." Of particular note in this regard is the utilidor which provides a visible boundary between the "two ends of town" or more specifically the white and native element.

**Makale, Holloway and Associates Ltd.** *Planning Report and Development Plan, Norman Wells, NWT*. Edmonton: Makale, Holloway and Associates Ltd., 1970.

Commissioned by the government of the Northwest Territories, this report was intended to provide for the physical reorganization of Norman Wells. Described as "predominantly a company town," the economic basis of the community has dictated the scope of the redevelopment plan. Nonetheless, and as the report suggests, there are two distinct groupings within the community. The larger section is associated with Imperial Oil while the second group is a service sector consisting of DOT, RCMP and construction personnel. Housing conditions vary considerably, although the "sixty-five family type" units within the community are generally regarded as adequate.

**Manitoba.** Manitoba Housing and Renewal Corporation. *Summary Report of the Northern Housing Conference. Thompson, Manitoba, 1983*. Winnipeg: Manitoba Housing and Renewal Corporation, 1983.

Prompted by a "cumulative list of problems confronting Northern Housing," the seminar from which this report evolved, was an attempt to facilitate community input into the housing process. Although this volume provides little more than a summary appraisal of the conference, many of the recommendations outlined by the brief are valuable contributions to the housing process. Particularly important in this regard was the emphasis placed on "integrated" housing programs. In an effort to design a co-ordinated housing policy, the report called for the creation of an ongoing "working group." Consisting of representatives from the provincial Department of Housing, the Manitoba Métis Federation, the Northern Association of

Community Councils, The Department of Northern Affairs and CMHC, the group was intended to offer a well thought-out housing policy.

**Manitoba.** Provincial Committee on Housing. *Housing Conditions, Requirements, and Supply: A Profile of Housing in the Province of Manitoba.* Winnipeg: Manitoba Provincial Committee on Housing, 1968.

Although somewhat dated, this report offers a good statistical overview of the circumstances of Manitoba housing stock. This is particularly true of northern Manitoba where the study isolates the housing problems encountered by the Indian-Métis population, the rural districts and the "northern towns." Concluding that "housing deficiencies are only symptoms of more fundamental malaises," the report underscores the socioeconomic basis of the housing issue.

**Manitoba Indian Brotherhood.** *Wahbung: Our Tomorrows.* Winnipeg: Manitoba Indian Brotherhood, 1971.

Prepared by the four Indian tribes of Manitoba - the Cree, Ojibway, Chipewyan and Sioux, this study evaluates current native programs with a view to affecting future policies and procedures. Although a subjective interpretation, the report does raise a number of important issues. This is particularly true in its analysis of native housing. Indeed, in describing the overcrowding, the lack of services, the improperly designed structures and the generally inadequate housing facilities of the native population, the authors clearly underscore the "abject poverty" confronting the native community.

**Marsh, L.** *Communities in Canada.* Toronto: McClelland and Stewart Ltd., 1970.

Marsh's study is a fairly general survey of Canadian urban growth. The author does, however, give some thought to the circumstances of what he describes as the "industrial town[s]." In maintaining that the industrial town is distinct from the "ordinary" urban community because of its "boom" quality, Marsh cites a number of problems that he directly

associates with the instant community phenomenon. His conclusions offer a rather broad recommendation for greater regional planning as a partial solution.

**Marshall Macklin Monaghan Ltd.** *Uranium City, Alternative Strategies Study.* Volumes I and II. Toronto: Marshall, Macklin Monaghan Ltd., 1982.

This report which was commissioned by the Uranium City Task Force was undertaken in an effort to determine what "economic redevelopment opportunities and/or compensation mitigation measures" would be suitable for the community of Uranium City. Concluding that there were "no long-term redevelopment opportunities," the authors recommend a massive relocation program complete with indemnification for loss of market value. Underscoring the central place of the "three principals" in the decommissioning process, the report further attempts to establish a fair and reasonable payment schedule for property loss.

**Mathias, P.** *Forced Growth: Five Studies of Government Involvement in the Development of Canada.* Toronto: J. Lewis and Samuel, 1971.

Concentrating on the post-1950 era of economic expansion, Mathias details what he describes as a government co-ordinated "development psychology." In evaluating the impact of government programs such as the Manitoba Development Fund or the Fund for Regional Economic Development, Mathias questions the practicality of the incentive approach as adapted by the various provincial governments and their federal counterparts. In the end and on the basis on five case studies depicting the evolution of Georgetown, Prince Edward Island, Churchill Falls, Newfoundland, Prince Albert, Saskatchewan, Glace Bay, Nova Scotia and The Pas, Manitoba, the author concludes that the incentive approach to community development is indicative of the expanding role of government in local affairs.

**Matthiasson, J.S.** *Resident Perceptions of Quality of Life in Resource Frontier Communities.* Winnipeg:

Centre for Settlement Studies, University of Manitoba, 1970.

Focusing on the community of Fort McMurray, Alberta, Matthiasson's study gauges residents' perception of life in an isolated single industry town. Using a questionnaire styled survey, the author interviewed approximately 900 inhabitants. Dividing the survey into categories of community enjoyment, community improvement and community satisfaction, Matthiasson attempted to rank the quality of life issues. For example, the "average resident" felt most comfortable if entertainment facilities were provided, real income was fairly high, quality housing was available and if the opportunity for travel existed.

Mayne, R.E. "Community Planning in the Arctic Environment." M.A. thesis, University of Manitoba, 1968.

Focusing on the District of Keewatin, Mayne examines Arctic settlement with a view to determining methods of improving both living and working conditions for Arctic inhabitants. While the author provides some valuable insight into the northern community and related service infrastructure, the thesis is most instructive as a case study of three Arctic communities. Isolating the settlements of Chesterfield Inlet, Repulse Bay and Pelly Inlet, Mayne details fuel costs, family size and housing form. Of particular interest are the Housing Summary Tables which provide not only a descriptive account of the units in each community but also an assessment of their habitability.

McCann, L.D. "Canadian Resource Towns: A Heartland-Hinterland Perspective." In *Essays on Canadian Urban Process and Form II*, ed. R.E. Preston and L.H. Russwurm. Publication Series No. 15. Waterloo: Department of Geography, University of Waterloo, 1980.

As the title suggests, McCann attempts to incorporate a metropolitan framework in the historical analysis of the Canadian resource town process. In describing the various communities as "colonial outposts of an industrial heartland," McCann convincingly argues that all resource towns share

a similar pattern of development. In tracing the evolution of the process of development, the author arrives at a system for categorizing the resource town phenomenon that is based on additive, holistic and comprehensive planning objectives.

McCann, L.D. "The Changing Internal Structure of Canadian Resource Towns." *Plan Canada* 18 (March 1978).

McCann has attempted to analyze the evolution of the Canadian resource town phenomenon in terms of changing town planning theory. In discussing the impact of British and American planning initiatives, the author readily describes the central place of both Garden City and Radburn planning concepts. Eventually giving rise to what the author defines as the comprehensive period, the social and economic principles inherent in Garden City and Radburn planning foreshadowed a greater willingness to plan for an orderly environment.

McCutcheon, M.K. and R.C. Young. "The Development of Uranium City." *The Canadian Geographer* 4 (1954).

McCutcheon and Young provide a good historical overview of the development of Uranium City. Beginning with the gold finds of the 1930s, the authors trace the mineral orientation of the Beaverlodge area right up to the uranium discoveries of the Eldorado Mining and Refining Corporation. In doing so, they also detail the Saskatchewan government's attempt to provide for regulated growth. This included not only a variety of northern administration acts but also the activity of the Community Planning Branch within the townsite itself.

McEwen, E.R. *Community Development Services for Canadian Indian and Métis Communities*. Ottawa: Indian-Eskimo Association of Canada, 1968.

Cited as a "working paper" intended to identify "community development needs," this study provides a valuable inventory of community development programs and a great deal of insight into "the plight of Canadian Indians and Eskimos." Although

documenting the variety of services available through Indian Affairs, ARDA or Health and Welfare, the report concludes that the native population is unable to effectively apply community development programs. This is most clearly described in the area of housing where standards in the native community are portrayed as being "seriously below the Canadian standard" and housing stock well "short of new family formations."

**McEwen, R.** "Inuit Develop Their Own Housing Program." *Living Places* 12, 4 (1976).

McEwen, housing project Director for the Inuit Tapirisat of Canada, provides valuable insight into the operation of the Inuit Non-Profit Housing Corporation (INPHC). In suggesting that there are a "number of serious defects" in both the federal and territorial government housing programs, McEwen implies that INPHC was formed to address the housing problems of the North. Beginning in 1975 with a "ten-house project," the Corporation quickly developed the machinery necessary for both the building and administration of local housing units. Of particular note in the Corporation's unique approach to northern housing was the selection of the geodesic dome as the standard form of construction.

**McFarland, J.R.** "The Administration of the Alberta New Towns Program." *Du'Quesne University Law Review* (Spring 1967).

McFarland discusses the unique quality of Alberta's new town legislation. He describes the program as the only one of its kind in Canada where the provincial government has "enacted a single comprehensive piece of legislation" to co-ordinate the growth of new communities. In this regard, the New Town's Act which received royal assent in March 1956 allowed the provincial government to "co-operate" with the resource industries in the development of well-ordered single industry towns.

**McRae, E.D.** "New Communities for a New Era, The Instant Town." M.B.A. thesis, Simon Fraser University, 1970.

Describing the post-World War II new town movement as consisting of "community planning, democratic municipal administration and self-owned housing," McRae attempts to provide an overview of its implementation in Canada. Although the study concentrates on British Columbia's instant town program, McRae does provide some comparative analysis. This is particularly true in consideration of Saskatchewan's Industrial Town's Act and Alberta's New Town Act.

**Mertz, J.P.** "The Planning of Pine Falls, Manitoba: A Model Industrial Town." *Journal of the Town Planning Institute* (June 1929).

Mertz discusses the growth of what he terms a "model industrial town." Developed at the initiative of the Manitoba Paper Company, Pine Falls as it is described by the author, bears a close resemblance to the British new town. In any case, the benevolent attitude of the paper company towards community development is reflected in the appearance of the townsite. Described by Mertz as "a picture of attractive cottages in a park like setting," Pine Falls is a good example of company planning at its best.

**Middleton, C.D.** Self-Help Components in Housing Delivery. A report prepared for the Canada Mortgage and Housing Corporation, Toronto, 1983.

This report, which was undertaken in an effort to evaluate the self-help component of the Rural and Native Housing Program, offers the self-help vehicle as a "legitimate method of housing delivery." Arguing further that local participation in the housing process would reduce "arrears, defaults, repossessions and maintenance" and even extend the life of the RNH units, Middleton clearly supports the notion of grass roots housing. Conducting fifty-seven interviews across Canada, Middleton has attempted to pull together an overview assessment of the self-help component inherent in the RNH Programs. In general, his findings indicate that some programs (ie. RRAP) are more conducive to local involvement, while others (i.e., Section 40) offer little scope for participation. In the end, however, the author maintains that the RNH "encourages" the self-help

principle but that greater effort must be made to strengthen the concept.

**Morris, G.R.** "A Study of the Design Determinants of Five Canadian New Towns." Master's of Community Planning, University of Manitoba, 1968.

In describing the so-called "Design Determinants" of communities such as Drayton Valley, Alberta or Thompson, Manitoba, Morris provides a good overview of the single industry town planning initiative. This is particularly true of the author's analysis of the variety of provincial government programs implemented to facilitate new town development. In this regard, for example, Morris details the activity of government agencies such as the Alberta Provincial Planning Advisory Board or Manitoba's Metropolitan Planning Service. In general, the author's conclusions indicate that the provincial government planning initiative is of paramount importance to the well planned single industry community.

**Moss, A.E.** "Design of Integrated Northern Communities." In *The Developing North*. A Publication of the Third National Northern Resource Conference, Whitehorse, 1969.

In a paper presented at the Third National Northern Resource Conference, Moss clearly articulates what he defines as the "many advantages" of the regional town concept. In direct contrast to the smaller, more vulnerable single industry town, the author discusses the inherent stability of the regional community. Citing factors as varied as diversified employment opportunities to improved utility services, Moss' conclusions recommend a greater adherence to regional planning principles. At the same time, however, he recognizes the problems of distance and transportation and suggests that each project requires an objective appraisal of all the pertinent facts.

**Mougeot, M., ed.** *Proceedings: Conference on Commuting and Northern Development*. Saskatoon: Institute for Northern Studies, University of Saskatchewan 1979.

As a response to the Science Council of Canada's publication *Northward Looking*, the Institute of Northern Studies organized the Conference on Commuting and Northern Development and subsequently published the proceedings. Undertaken in an effort to stress "the importance of commuting to mines from northern communities," the conference attempted to highlight a community alternative to northern development. By recommending the commuter option, the conference clearly interpreted the key to northern development as flexibility. In this vein, the Atco housing units employed by Gulf Minerals at Collins Bay or the hotel style of accommodation erected at Rabbit Lake, provided a minimal level of community with very small expenditure and, most pointedly, very little risk.

**Munger, J.A.** *Report on Housing and Environmental Conditions in the Prairie Provinces*. Saskatoon: Canadian Centre for Community Studies, 1966.

Relying heavily on census material, Munger provides an interpretative overview of the so-called "rural-urban housing gap." Although the statistical information utilized is somewhat dated, the author still paints a fairly vivid picture of the rural-urban housing "continuum." Indeed, in using "Housing Quality Indicators" such as dwellings with running water or dwellings needing major repairs, Munger concludes that 12 percent of all occupied rural dwellings in the prairie provinces require major repairs, 23 percent are overcrowded, 64 percent lack running water and 55 percent are without central heating. The solution, according to Munger, is to direct programming towards economic development rather than simply housing.

## N

**Nagler, M. and M.L. Komornicka.** "Community Development Programs and The Native Peoples in North America." In *Participating Democracy in Action* ed. D.A. Chekki. Sahibabad: Vikas Publishing House, 1979.



and, further, that average personal incomes for the on-reserve population is 25 percent less than the off-reserve population, the authors conclude that many households "do not have sufficient financial resources to afford basic amenities."

Nickels, J.B., D. Harvey and J. Ledger, eds. *An Interdisciplinary Approach to Scientific Research on Quality of Life in the North*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1976.

This volume is a "multi-authored" summary of Project Work Force, an interdisciplinary research program run through the Centre for Settlement Studies. As such, it provides an introduction to the northern research program as well as an overview of the quality of life issues so pertinent to the single industry community. In both areas, this study provides valuable insight. This is particularly true in terms of the continued analysis of the quality of life issues as the authors establish a well-rounded perspective on the quality of life debate.

Nickels, J.B., D.L. Sexton and C.A. Bayer. *Life Satisfaction in a Resource Community*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1976.

The purpose of this study was defined by the authors as an attempt to "examine the concept of quality of life" in resource frontier communities of the Canadian North. Emphasizing "subjective indicators" of well-being, the authors developed a seven point, two form questionnaire that was distributed to forty-eight participants in the community of Lynn Lake, Manitoba. In general, and after detailing several variables of "self-satisfaction," the authors conclude that life satisfaction in the northern community is "probably a function of several personal characteristics."

Nickels, J.B. and J. Kehoe. *Northern Communities: Mental Health and Social Adaption*. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1972.

Originally presented as a discussion paper at the Canadian Psychological Association meetings at the University of Montreal in 1972, this study in

"community psychology" describes the circumstances of "mental health and social adaption" in the northern community. Focusing specifically on the community network of the Yukon, the authors describe four settlement types and the unique "mental health delivery system[s]" found therein. The service centres, mining camps, highway settlements and the "potential ghost towns," are all discussed in terms of distinct mental health problems which in turn are seen to be "conditioned by size, age, history, economy and social structure."

Nixon, P.G. "Eskimo Housing Programmes, 1954-1965: A Case Study of Representative Bureaucracy," Ph.D. Thesis, University of Western Ontario, 1984.

Eskimo housing programs as they evolved in the period 1954-1965 are described by the author as being very much typical of the federal government's post-World War II northern awakening. Indeed, in describing the creation of the bureaucracy necessary to the management of northern housing programs, Nixon paints a fairly accurate picture of the colonial quality of the northern development phenomenon. Housing programs, however, which were initially implemented in an effort to provide appropriate dwelling units for northern residents had shifted dramatically by the years 1958-1959 to the provision of southern housing facsimiles. At the same time the "rigid digits," like the styrofoam huts of the earlier era, were still products of the bureaucratic colonization of northern expansion.

Nogas, F. "Fly-In Program at Rabbit Lake." *The Canadian Mining and Metallurgical Bulletin* 69 (October 1976).

In arguing that the single enterprise town phenomenon "violates the traditional urban development process," Nogas presents a strong case for the fly-in community. As the Manager of Gulf Mineral's Human Resources Department, Nogas offers valuable insight into the Rabbit Lake experience. Documenting the detailed survey work, comparative studies, staff problems and the "economics of commuting versus townsite" development, the author develops a convincing narrative. Through the provisions of "motel-type units," Gulf Minerals met the on-site

accommodation needs of workers from as far away as Saskatoon or Fond du Lac.

**Nordlund, R.V.** "Settlement Planning in The Arctic." Master's of Architecture thesis, University of Manitoba, 1972.

Concluding that Arctic settlement is an essential ingredient of Canadian sovereignty, Nordlund attempts to evaluate the community options available to settlement planning. The author convincingly argues that little or "no consideration has been given to the special physical, socioeconomic, and technical requirements" of the Arctic environment, and concludes that planning must attempt to redress this oversight. Nordlund, in dealing with this problem, recommends the creation of either a non-permanent form of community or the compact regional centre town. In both cases innovative planning includes prefabricated units, pile foundations, gravel pad insulation and pedestrian walkways.

"Northern Mining Towns Facing a Bleak Future." *Business in the Information Age* (October/November 1986).

Focusing on Manitoba's mining communities, this brief but concise study offers an overview of contemporary management techniques. In suggesting that the province of Manitoba is at the forefront of "pre-crisis planning," the report clearly supports the notion of a Community Reserve Fund. At the same time, however, the study provides a realistic appraisal of the economic recession and its impact on the resource town phenomenon. Whether in the discussion of Leaf Rapids, Lynn Lake or Flin Flon this study concludes that all "mining towns are in danger of extinction."

**Northwest Territories Housing Corporation.** Baffin Housing Conference Proceedings, Pangnirtung, October, 1980.

Drawing together delegates from 13 communities, this conference was intended to provide a forum for the discussion of northern housing problems. With a view to designing "improved housing programs for the people of the N.W.T.," the N.W.T.

Housing Corporation actively encouraged local participation and further willingly accepted comments and suggestions concerning the same. On the basis of the summary material included in the proceedings it would appear as though the decentralization of housing services was still very much an issue with Baffin District residents. Indeed much of the discussion centred around the role of the newly created Housing Federations and their relationship with both the N.W.T. Housing Corporations and the various Housing Associations.

**Northwest Territories Housing Corporation.** *Housing Needs and Delivery in the Northwest Territories.* Government of the N.W.T., N.W.T. Housing Corporation, 1984.

A mostly descriptive account of housing need and delivery in the Northwest Territories, this study provides a good overview of the role played by the N.W.T. Housing Corporation, CMHC and the various local authorities in the provision of housing. Indeed, in suggesting that the Housing Corporation alone owns 4,000 units or roughly half the housing in the N.W.T., the report clearly underscores the central place of the government agency in the territorial housing market. Included in the discussion are housing costs, administrative services and rehabilitation programs. Of particular interest is the Rental Scale which was established in 1983 and the four examples cited to illustrate how rental rates are "tailored to family income."

**Novak, B.E. and S. Glouberman.** *Human Settlement in the Canadian North.* Montreal: Urbanorth Inc., 1976.

Prepared under the guidance of URBANorth Inc. a non-profit research organization, this report is a questionnaire styled survey which was intended to provide an "inventory of foreseeable issues related to northern human settlement." Canvassing a so-called "panel of experts" on the topic of northern development, the results offer an interesting overview of potential areas of concern. In terms of housing, the conclusion drawn indicates that housing "is, and will continue to be a central problem." Underlining the need for consultation, need assessment and

education programming, the study calls for greater local input in the housing process.

## O

**O'Connell, M.P.** *Canadian Standards of Housing in Indian Reserve Communities.* A memorandum prepared for the Indian-Eskimo Association of Canada, 1965.

Focusing on economic, financial, social and cultural considerations, O'Connell articulates a native housing plan which he argues, will "bring housing of Canadian standards to Indians living on reservations." Not only does the author's plan propose to provide houses that are winterized or that include indoor washroom facilities, but it also attempts to "assist in the preservation of Indian identity by fostering communities capable of producing equal citizens." Through a "self-help" program and with fairly generous government subsidizes, O'Connell's plan is "one of several possible approaches" to the native housing problem.

**Ontario.** *Advisory Committee on Resource Dependent Communities.* Final Report and Recommendations of the Advisory Committee on Resource Dependent Communities. Toronto: Ontario Ministry of Northern Development and Mines, 1986.

Although the focus of this study is northern Ontario, its recommendations are applicable to most resource dependent economies. Citing issues such as severance pay, wage loss insurance and relocation assistance, the report documents the variety of problems associated with plant closures. Its recommendations, which include eighty points of reference, most clearly call for the decentralization of government services. At the same time, however, and through the creation of a Northern Ontario Fund, the study recommends greater government spending in the North. Of particular significance is the issue of housing. The report calls for not only joint housing programs but also renewed research and development in the housing industry.

**Outcrop Ltd. in Association with DPA Consulting Ltd.** *Dome/Canmar Beaufort Sea Operations: An Economic Analysis 1976-1980.* Vancouver, 1981.

This study examines the economic impact of Dome/Canmar's drilling operation in the Beaufort Sea in the Northwest Territories. Emphasizing Canmar generated income and employment, the report suggests that the company has been most successful in meeting its commitments to the local population. The authors estimate that the project has provided approximately \$23.7 million in wages and salaries to N.W.T. residents over the course of four years (1976-1980). A large percentage of this accrued to the inhabitants of Inuvik and Tuktoyaktuk. Beyond the direct impact of employment opportunities was a major increase in the standard of living and consequent improvements in living conditions.

**Oswalt, W.H. and J.W. Van Stone.** "The Future of the Caribou Eskimos." *Anthropology* 11, 2 (1960).

In part a response to increased federal government activity in the North, this study by Oswalt and Van Stone details the development options of the so-called "Caribou Eskimos." Although the authors recognize that the goal of government policy is to encourage the Canadianization of the Eskimo population within "the framework of local cultures," their conclusions do not support the tradition of "authoritarian paternalism." Instead, the authors call for greater local initiative at the community level. Specifically referring to the settlement of Eskimo Point, Oswalt and Van Stone clearly articulate a sense of social autonomy, which includes housing design and construction, town planning and even education.

## P

**Paget, G. and B. Walisser.** "The Development of Mining Communities in British Columbia: Resilience Through Local Governance." Prepared for Queen's University, Centre for Resource Studies 12th Policy Discussion Seminar, Kingston, Ontario, November 1983.

Incorporating the Task Force Report on Mining Communities' recommendation that mining communities be based on "flexible or resilient" decision-making, Paget and Walisser attempt to build a government oriented model of community resiliency. Although most of the discussion concentrates on the decision making process, a portion of the study details the provision of private goods such as housing. In calling for an "integrated or private market approach" to housing, the authors underscore the essential issue of housing in the resource sector; equity bondage.

"The Parcoll Housing Unit." *The Polar Record* 11 (September 1962).

The Parcoll housing unit is described as "a form of portable, insulated hut," which has met with considerable success as a temporary housing unit in extreme climates. It is an easily assembled unit which provides considerable flexibility in relocation. Consisting of an inner and outer skin of Terylene and a one-inch thick lining of fibreglass insulation, the walls and roof are fitted over an aluminum frame, providing a tent like appearance. The floor is made from hardwood panels which also double as the unit's shipping and storage crate.

Parker, V.J. *The Planned Non-Permanent Community*. Ottawa: Department of Northern Affairs and National Resources, June, 1963.

Parker's study which is a published version of his master's thesis, focuses on Canadian mining towns and the problems found therein as a result of resource depletion. The work is one of the most detailed studies of the "wind-down" phenomenon of resource production. Parker's recommendations which remain feasible some twenty-six years after they were first proposed, call for the development of "non-permanent" communities. With specific reference to the mobile home and the demountable house, Parker attempts to revitalize the concept of the sleep camp.

Parkinson, A. and D.D. Detomasi. "Planning Resource Towns for the Alberta Tar Sands." *Plan Canada* 20, 2 (1980).

Parkinson and Detomasi provide an overview of the process of community development in the tar sands area of northern Alberta. Their study is mostly an appraisal of contemporary community growth and while the authors do, in a limited way, discuss the pre-1964 period, they tend to concentrate on the 1964-1979 era. This is particularly true in their discussion of the McLelland Lake and the Cold Lake development projects. In any case, Parkinson and Detomasi provide a valuable regional perspective to the community structure of the tar sands area.

Parson, G.F. *Arctic Suburb: A Look at the North's Newcomers*. Ottawa: Northern Science Research Group, Department of Indian Affairs and Northern Development, 1970.

Described as the Mackenzie Delta Research Project, this study analyzes the "social and economic factors related to development in the Mackenzie Delta." Focusing on the white, government employee population of the community of Inuvik, Parson's objective was to research the attitudes of "transient whites" towards the northern environment. The author interviewed 337 individuals. The conclusions drawn by Parson indicate that the sample population shared a number of common attitudes or characteristics. Dominant among these was the perception of the native population.

Pearson, N. "New Towns in Alberta." *Town and Country Planning* (October 1966).

Pearson undertakes the analysis of the Alberta provincial government's response to what he terms "a crisis of urbanism." Centring on a discussion of *Alberta's New Towns Act* of 1956, Pearson suggests that Alberta's planning system was "the most advanced in Canada." In support of this argument, the author cites a number of new town examples and further concludes that the province of Alberta through its activity at Lodgepole or Cynthia was indeed a Canadian pioneer in new town development.

**Pearson, N.** *New Towns: The Canadian Experience*. Publication No. 57. Ottawa: Ministry of State for Urban Affairs, 1972.

Published with assistance from the University of Guelph's Centre for Resource Development, this study offers a good overview of the Canadian new town experience. Suggesting that "all Canadian urban places could be considered as new towns," Pearson discusses a variety of communities. Using a traditional form of classification which includes resource towns, communication towns, administrative towns, garden city towns, satellite towns, suburban cities and independent new towns, the author provides a most extensive list of Canadian new towns.

**Perrault-Dorval, G.** "L'Habitation Nordique." *North* XXIX (Fall 1982).

In suggesting that 1956 was a pivotal year for northern housing, Perrault-Dorval provides a detailed account of the federal government's "program special d'habitation." Tracing the history of the housing initiative from models 317 and 390 or the more familiarly known "matchbox" units to the more contemporary "egg carton" or "geometric" structures, Perrault-Dorval argues that northern housing must reflect the needs of the northern people. Applauding the activity of the N.W.T. Housing Corporation, the author suggests that their co-operative housing projects are an example of what can be accomplished in the North through co-ordinated effort.

**Perchal, P.M.** "From Longhouse to Townhouse: The Evolution of On-Reserve Housing Policy for Canadian Indians," M.A. Thesis, University of British Columbia, 1983.

In examining the federal government's "policy-process for on-reserve housing for Indian people in British Columbia," Perchal makes a strong plea for changing the government policy-making process. Arguing that government policy has facilitated the assimilation of native values and further the acceptance of welfare values, encouraged individualism among the native people and promoted competitive dominance, the author clearly calls for

greater local involvement in the housing process. Indeed in concluding that on-reserve housing conditions have been "getting worse" rather than better, Perchal proposes the lessening of government intervention in favour of greater local participation.

**Pineridge Consultants.** *A Housing Policy for La Loche, Saskatchewan*. Meadow Lake, Saskatchewan. (mimeo).

In arguing that the federal/provincial partnership in the Rural and Native Housing Program has been a "clear failure," this report attempts to redress the northern housing initiative. Its recommendations offer a wide range of solutions intended to alleviate some of the problems encountered in the government program. Whether in consideration of a flat rate mortgage scale, a rental/purchase option on Section 40 homes or simply through the process of reducing arrears on the basis of home improvements, the consultants have incorporated a "bottoms-up" approach to the housing conundrum. In this vein too, the theme of self-help, which is evident throughout the report, places the housing program delivery process firmly in the hands of a local authority.

**Pinfield, L.T. and L.D. Etherington.** *Housing Strategies of Resource Firms in Western Canada: Final Report to CMHC*. Vancouver, 1982.

In suggesting that "housing continues to be a critical problematic issue for resource firms," the authors present a thorough analysis of housing strategies as applied by resource firms in Western Canada. In general, they maintain that housing policy consists of three components: availability, affordability and accessibility. Their detailed analysis, which isolates a number of company towns in British Columbia, evaluates such programs as buy-back agreements, low interest loans geared to income housing and "key employee" housing availability.

**Platts, R.E.** "The Angirraq: Low Cost Prefabrication in Arctic Houses." *Arctic* 19 (February 1966).  
The Angirraq which is described by Platts as the Department of Northern Affairs' "unique little hut," is one in a long line of prefabricated Arctic houses.

Cited for its "lightweight complete prefabrication, ease of erection and demountability, and high insulation value," the Angirraq was introduced to northern conditions in 1964. In suggesting that the unit, when assembled, allows for "some movement without structural damage," Platt describes the "floating" design system which has become so widely accepted in the North.

Platts, R.E. *Prefabrication in Northern Housing*. Technical Paper No. 110. Ottawa: Division of Building Research, National Research Council, November 1960.

In suggesting that high "northern transportation and labour costs and the very short construction season favour full prefabrication" in the North, Platts clearly articulates a central place for prefabricated housing in northern Canada. Tracing the history of northern prefabrication systems from the 1940s, Platts details a variety of housing types. Including wood-frame, precut log, arch rib, stressed-skin panel, structural sandwich and portable shelters, Platts' analysis provides a good structural history of the prefabrication process. His conclusions indicate that prefabrication (particularly lightweight prefabrication) is the most logical and economical building process for the North.

Porteous, J.D. "Creating Cities for Northern Conditions." *Habitat* 18, 4-5 (1975).

As something of a policy statement concerning the establishment of single industry communities, Porteous makes a strong case for the creation of a "central city system." In arguing that the "multipurpose community" is a feasible alternative to the problems associated with the one industry town, the author cites both the Siberian and Scandinavian examples. At the same time, however, Porteous recognizes the need for greater government involvement and further calls for the creation of inter-government "planning teams" to co-ordinate expansion.

Porteous, J.D. "Which Environment Would You Prefer." *Habitat* 17 (1974).

In a critical appraisal of the "instant town" phenomenon, Porteous offers a reasonable discussion of the wide variety of planning alternatives. Describing Canada's instant towns as "suburbs without a metropolis" or "wilderness suburbs," Porteous cites the "unimaginative, conformist" planning tradition as the major impediment to the development of a single industry town planning program. The alternatives as presented by the author include "megastructures, planned non-permanent communities, centralized multi-resource based cities and disposable townsites."

Power, G., W. Gillespie, D. Wittkowski and R. Rink. "Computer Modelling of Boomtown Housing: The Fort McMurray Study." *Canadian Journal of Regional Science* 111 (Spring 1980).

In an effort to provide a "mathematical model" of boomtown development, the authors apply an American prototype of boomtown analysis to the rapid expansion of Fort McMurray. Arguing that their experiment will help both industry and government anticipate future developmental problems, the authors "track" the community's growth pattern. Focusing on three specific aspects of the boomtown housing market: permanent housing; temporary housing; and use and value of land, the authors develop a complicated need assessment equation. Their conclusions, which still appear quite tentative, indicate that both the BOOM 1 and BOOM H models could positively affect housing programs, and further, eliminate many of the initial housing problems encountered in a boomtown.

Praxis, A Social Planning Company Ltd. *Resource Community Study*. A report prepared for Canstar Oil Sands Ltd. Calgary: Praxis, August 1982.

In suggesting that this "study is the first of such a comprehensive and in-depth nature to be undertaken on Canadian resource towns in the last twenty years," Praxis has attempted to provide Canstar Oil Sands Ltd. with a thorough appraisal of housing options. Referring specifically to the

potential for a new townsite near McLelland Lake (north of Fort McMurray) the report details a wide variety of housing issues. Whether in consideration of household characteristics, housing costs and assistance or home renovations, the study offers a most comprehensive discussion of housing options for the resource sector.

Pressman, N.E.P. "New Towns." Occasional Paper No. 1. *Contact* (June 1972).

In suggesting that the planning and building of "new towns" in Canada has been "frustrated" by fragmented responsibility for public policy, Pressman offers a comparative interpretation of the North American-European new town process. The Canadian experience, the author argues, has followed either the exploitation of natural resources or the proliferation of regional development. The European example, on the other hand, is described as a "more vigorous" process wherein new town development often is incorporated at the most formative level of planning.

Pressman, N.E.P. and X. Zepic. *Planning in Cold Climates: A Critical Overview of Canadian Settlement Patterns and Policies*. Winter Communities Series No. 1. Winnipeg: Institute of Urban Studies, University of Winnipeg, 1986.

In an effort to "outline the spectrum of winter-related problems" associated with the northern community, Pressman and Zepic provide an overview of the so-called winter city phenomenon. The authors offer valuable insight into the planning and development of isolated northern communities. This is particularly true of the resource town as the authors make specific reference to communities such as Leaf Rapids, Manitoba or Tumble Ridge, British Columbia. Touching on issues as varied as housing form to "street furniture," Pressman and Zepic discuss in a most detailed fashion the problems of the northern community.

Pressman, N.E.P. *Planning New Communities in Canada*. Waterloo: School of Urban and Regional Planning, University of Waterloo, 1974.

Pressman describes this work as a "pilot investigation, of the varied and broad-ranging aspects of new towns or communities." It is a general overview of the Canadian new town phenomenon and in many respects establishes an important framework for future analysis. Although the author does discuss the specific case studies of Don Mills and Bramalea, it is through the holistic appraisal of the new town process that this study makes its largest contribution. This is particularly true of the comparative evaluation of new towns, in which Pressman details Scandinavian, British, American and Canadian examples.

Pressman, N.E.P. *Planning New Communities in Canada*. Ottawa: Ministry of State for Urban Affairs, August 1975.

Very much similar to the 1974 publication *Planning New Communities in Canada*, this edition provides a slightly more detailed account of the Canadian new town experience. For example, the author uses statistical evidence to argue that the largest number of "new communities" in Canada are those dependent upon "resource exploitation." The theme of the single industry resource town is developed even further when Pressman discusses community characteristics. It appears that the author often equates the single industry town and the resource community as one in the same.

Pressman, N.E.P. and K. Lauder. "Resource Towns as New Towns." *Urban History Review/Revue d'histoire urbaine* VII (June 1978).

Pressman and Lauder present an overview of the resource town development process. Their study is divided into three sections: patterns of change; characteristics; and the planners response to community demands. In general, they suggest that the final responsibility for community development is that of the planner. The authors call for a greater consideration of the "distinct" northern environment in the planning and development of resource towns.

Pritchard, F.B. "A Development Plan for Churchill, Manitoba." Master's of Community Planning thesis, University of Manitoba, April 1970.

Attempting "to guide the integration of Churchill's segregated communities" and to create "a viable settlement with its own tax base, industry and human resources," Pritchard proposes a full scale redevelopment plan. Specifically citing issues of economic uncertainty, the overriding military function and the segregated nature of the townsite, the author suggests that the deteriorated state of the townsite is the result of its "historical origins and the development of the area." Pritchard's redevelopment plan which includes public housing, condominium ownership high-density dwelling units and even a housing "bank," is intended not only to rectify current problems but also to eliminate future ones.

**Pritchard, G.B.** "Inuvik -- Canada's New Arctic Town," *Canadian Geographical Journal* 64 (June 1962).

In an effort to provide an overview of the difficulties encountered in northern construction, Pritchard, Chief of the Northern Construction division of the Department of Public Works, offers a first hand account of the Aklavik-Inuvik relocation program. Crucial to the project was the array of on site, preliminary tests, conducted by the engineering staff. Studies were undertaken on soil conditions, drainage and water supply. Perhaps the greatest lesson learned, however, was the "completely unpredictable" nature of permafrost. Although it could be argued that the construction process at Inuvik never totally solved the permafrost problem, innovative building techniques, such as the incorporation of "steam jets" or the use of gravel as an insulator, helped to provide for a stable building environment.

**Pritchard, G.B.** "Inuvik, Canada's New Arctic Town." *Polar Record* 11 (May 1962).

Mostly a construction oriented discussion paper, this study focuses on the techniques incorporated to combat the problems associated with building on permafrost. At the same time, however, Pritchard does provide some detail on the temporary dwellings or the "512's" that were initially constructed on the site, as well as on the "four basic types of houses" planned by CMHC.

**Pritchard, G.B.** "New Town in the Far North." *Geographical Magazine* 37 (September 1964).

This study, which is primarily a pictorial essay on the early development of Inuvik, provides an interesting overview of the instant town phenomenon. Although Pritchard does make mention of segregated housing, peripheral growth and permafrost stabilization techniques, his discussion is essentially a descriptive account of community growth. Of some interest, however, is the author's appraisal of the "512's." Clearly underlining a housing hierarchy, Pritchard implies that the Eskimo and Indian populations were restricted to the "cabin-type" 512's while the white population had access to three or four bedroom units.

**Pullen, G.** "Some Problems of Development In the Canadian North." *Planning Outlook* (1959).

Pullen, in describing the problem of northern development, isolates five specific regional development constraints. Including accessibility and transportation, permafrost soil conditions, fire, climate and design, the author suggests that the physical environment of the northern community often precludes the development of quality facilities. While this is indeed the case, the author remains optimistic about the future of northern communities. Citing such innovative practises as "steam jetting," house "huddles(s)" or "spider form design" techniques, Pullen concludes that community development is responding to the challenges of the North.

## Q

**Quinn, H.** "The Lengthening Shadow of Ghost Towns." *Macleans* 98 (21 January 1985).

Although a journalistic study, Quinn's analysis of the single industry town phenomenon is well founded. Detailing the plight of communities such as Faro, Uranium City and Schefferville, the author suggests that the "days of a community founded upon a single industry are over." Providing vivid accounts of community decline, Quinn describes vacated



housing, relocation programs and compensation payments. Of particular interest is the example cited by the author of the approximately 400 housing units that were moved by truck and barge from Uranium City to Fort McMurray in the post-1982 period.

## R

**Rabnett, R.A. and Associates.** *Resource Community Planning: Framework for Choosing Settlement Options.* Victoria: Ministry of Municipal Affairs, 1979.

With the preamble that the province of British Columbia was expected to "benefit" from increased resource production, the authors attempt to provide a "procedure" for evaluating settlement options. Focusing specifically on both the creation of new communities and "radical" change within established communities the framework offers a reasonable overview of the decision making process. Citing examples such as Rabbit Lake, Saskatchewan, Gold River, British Columbia or Grand Cache, Alberta the report calls for a concisely articulated government strategy. The "three basic steps" in this regard are described as: developing settlement options; choosing the preferred option; and securing the option through provincial planning and negotiation.

**Rapoport, A.** *House Form and Culture.* Englewood: Prentice-Hall Inc., 1969.

Arguing that house form "is the consequence of a whole range of sociocultural factors" Rapoport offers an innovative overview of "the form determinants of dwellings." Further suggesting that climate, methods of construction, materials available, and technology are simply "modifying" forces, the author clearly underscores the primary function of sociocultural factors, in determining housing form. Although in a contemporary sense, Rapoport attaches considerable importance to the "institutionalization" of the housing process, there is still, he argues, a "standard family" dwelling which echoes the needs of a modern middle-class culture.

**Rea, K.J.** *The Political Economy of Northern Development.* Background Study No. 36. Ottawa: Science Council of Canada, 1976.

Rea presents a most thorough examination of northern development. He touches on issues ranging in scope from the impact of the amalgamation movement in the pulp and paper industry to the creation of communities such as Manitowadge and Elliot Lake. In general, Rea portrays northern development as a combined private and public venture, which is often co-ordinated at senior government levels.

**Redekopp, H.L.** "An Analysis of the Social and economic Problems of Four Small Communities in Northern Manitoba: Wabowden, Thicket Portage, Norway House and Oxford House." MA thesis, University of Manitoba, 1968.

Focusing on the theme of "self-help," the author argues that local participation in economic development programs is essential to their successful implementation. At the same time, however, Redekopp's recommendations include the provision of "greater assistance" by senior levels of government. Nonetheless, development strategies as defined by the author, must consider: 1) educational opportunities; 2) relocating residents to centres offering greater employment opportunities; and 3) creating a viable economic base. Concentrating on the four communities of Wabowden, Thicket Portage, Norway House and Oxford House, Redekopp details the glaring inadequacies of housing, service and utilities as well as the prospects for economic growth.

**Reed Management Consulting.** *The Mobile Home in Alberta.* A report prepared for the Alberta Department of Housing and Public Works. Reed Management Consulting, 1982.

In arguing that the mobile home phenomenon has traditionally accounted for an inordinately large portion of Alberta's housing stock, the authors examine the province's affinity for alternative housing. Estimating an occupied mobile home total of 49,000 units, the authors attempt to explain why mobile housing stock amounts to 6 percent of total occupied

dwellings. Documenting the variety of programs, the role of local manufacturers as well as changing attitudes, the report clearly measures a favourable market structure. One interesting conclusion, however, suggests that the resource boom's demand for "instant" housing was also in part responsible for the greater acceptance of mobile housing stock.

Rees, W.E. "Development and Planning North of 60°: Past and Future." In *Northern Transitions*, ed. R.F. Keith and J.B. Wright. Ottawa: Canadian Arctic Resources Committee, 1979.

Although not directly related to the specifics of northern housing, this paper documents the "Past and Future" of northern development. Arguing that northern expansion in a contemporary sense is a post-1950 phenomenon, Rees traces the evolution of John Diefenbaker's "Northern Vision." Under the sub-title of "An Approach to Northern Development Planning," Rees offers a series of recommendations intended to facilitate the co-operative implementation of development programs. Cited as a "new partnership between the central government and [the] communities" themselves, Rees proposal is a call for "bottoms-up planning."

Rees, W.E. "Northern Land Use Planning: Genesis of a Program." *Plan Canada* 25 (September 1985).

The northern land-use planning program as articulated by the Department of Indian Affairs and Northern Development in 1982, is described by Rees as having had little "impact on the status quo." Although DIAND maintained that the 1982 policy document was an innovative approach to land-use planning, Rees' conclusions indicate that it did little more than reinforce existing federal policy and further accentuate the "north-south colonial axis within Canada." Local decision making was apparently a non-issue.

Rees, W. "Planning on Our Arctic Frontier: Setting the Stage." *Plan Canada* 21, 4 (1982).

Rees' study of the Arctic frontier paints a bleak picture of Canadian resource development policy.

Although the federal government had established the machinery to control development through the Territorial Land-Use Regulation and the Environmental Assessment and Review Process, much of the problem is still related to the ad hoc implementation of policy procedures. The implications of this lack of policy initiative percolates down through the northern environment. The most visible impact, according to Rees, has been on the native people, whose customs and traditions have been sacrificed for industrial development.

Reich, D. "Design Criteria for Native Housing in Canada." M.E. thesis, Concordia University, 1985.

Intended as a "guide for designers" of native housing, Reich's thesis is an objective evaluation of native housing standards. In considering the unique household activities of the native or Inuit peoples, Reich underscores the importance of a distinctly northern housing design. While native housing is the central theme of the study, Reich's "design options" are pertinent to the construction of housing anywhere in the northern environment. The glazing options or the roof deck options or even the interior partition options, discussed by the author, provide valuable insight into the northern design process.

Reid Crowther and Partners Ltd. *Housing Upgrading Analysis: Detailed Data, Norway House, Nelson House, Cross Lake, Split Lake and York Landing*. Appendices B-F. Winnipeg, 1987.

Providing a house by house break-down of housing repair costs for the five NFC communities of Norway House, Nelson House, Cross Lake, Split Lake and York Landing, these reports offer a thorough overview of housing conditions in northern Manitoba. Estimating per house repair costs for such features as foundations, roofing, exterior or interior walls, insulation and drainage improvements, the consultants provide itemized cost spread sheets for each community. Reaching in some cases 70 percent of replacement cost, the total repair estimates per unit average 25 percent. In using a replacement factor of 60 percent of replacement cost, several units in each community are deemed unsalvageable.

**Reid Crowther and Partners Ltd.** *Northern Flood Committee: Housing Upgrading Analysis: Final Report.* Winnipeg, 1987.

In arguing that there is a need to evaluate all NFC houses "on a consistent basis and to establish a cost to renovate and repair existing houses," this report offers a most detailed "cost summary." Estimating "overall cost implications" for the upgrading of approximately 1,308 units at \$38 million, the consultants offer a negative appraisal of the quality of NFC housing. This is further underscored when costs for both future housing and servicing requirements are factored into the equation. Total costs of bringing NFC housing up to acceptable standards by 1996 are estimated at \$162 million.

**Rheume, G. and C.D. Crenna,** *A Low Income Housing Policy for 1971, Background Paper: Housing for Native People.* Ottawa: CMHC, 1970.

Although slightly dated, this report is a thorough examination of native housing conditions. Ranging from program evaluation to need assessment, Rheume and Crenna attempt to provide a well-rounded overview of native housing. Arguing that the issues of native housing are "structural as well as cultural and individual," the authors clearly underscore the significance of self-help in the native housing process. In concluding that "housing can be used strategically to assist with a general process of native social development by providing a base for health, education, cultural pride, and self-respect," Rheume and Crenna hit at the heart of the native housing conundrum.

**Rice, E.** *Building in the North.* Fairbanks: Geophysical Institute of the University of Alaska, 1975.

This volume which is comprised of a "selection of articles" previously published in *The Northern Engineer*, is a so-called "down-to-earth" engineering manual for construction in the North. Consisting of eight chapters and varying in topic from "permafrost: Its Care and Feeding" to "Water Supply in the North," Rice has attempted to tie together twenty years of building and teaching experience in Alaska into one how-to booklet. Responding to many of the recently introduced design innova-

tions for northern construction, Rice cautions: "Beware the Super-Clever Design."

**Ridge, T.G.** "General Principles for the Planning of SubArctic Settlements." Ph.D. thesis, McGill University, 1953.

Focusing on the Western Arctic region, Ridge provides a good, albeit dated, overview of northern settlement patterns. Of particular significance are the nine "representative settlements" that he discusses in detailed form. Ranging from administrative centres such as Whitehorse or Yellowknife to the resource oriented communities of Norman Wells and Mayo Landing, Ridge's analysis allows for both a general appraisal of settlement as well as a rudimentary understanding of the northern economy. His conclusions imply that many of the North's settlement problems could be alleviated with a well co-ordinated settlement program.

**Riffel, J.A.** *Quality of Life in Resource Towns.* Ottawa: Ministry of State for Urban Affairs, 1975.

This study is an overview of what the author terms the "current thought and research related to quality of life issues in resource towns." Further suggesting that the quality of life has three integral features -- the individual, the social and the substantive -- Riffel focuses his analysis on a) environmental conditions and b) individual attributes. In general, the conclusions or recommendations rather simplistically point to greater government control. This is particularly true of the Crown Corporation which Riffel describes as the "final scenario." Perhaps a more meaningful contribution is Appendix A which outlines the variety of "plans and proposals" implemented by both federal and provincial government authorities.

**Roberge, R.A.** "Resource Towns: The Pulp and Paper Communities." *Canadian Geographic Journal* 94, 1 (1977).

The Canadian pulp and paper industry forms the basis of Roberge's study of pulp and paper communities. Although the author does discuss

some elements of community growth, particularly the influence of Garden City planning, he tends to concentrate on the issues of industrial development. Wood pulping, machine technology and even the activity of the Pulp and Paper Research Institute all form the crux of Roberge's analysis.

**Roberts, A.** "Design for the North." *The Canadian Architect* (November 1956).

In editorial fashion, Roberts lists many of the problems inherent in the design and building of northern towns. Suggesting that recent attempts to "duplicate the southern environment" in the North has only served to exacerbate the problems, he calls for a uniquely northern approach to community development. Further describing the significance of regional settlement patterns to the individual northern town, Roberts defines a central place for both the federal and provincial governments in regional planning. The responsibility for the implementations of "improved policies and regulations," he concludes, rests with government.

**Roberts, L.W.** "Wage Employment in Two Eastern Arctic Communities." Ph.D. thesis, University of Alberta, 1977.

A sociological study of the effects of newly introduced wage employment among the Inuit of Pond Inlet and Arctic Bay, Robert's thesis calls for the greater integration of indigenous people into industrial society. At the same time, however, the author criticizes the federal government's policy of integration and further attacks the dependency relationship created by social welfare programming. In describing the "heavily subsidized" housing policy of the Eskimo Rental Housing Program, for example, Roberts discusses the failure of the program, both in terms of need assessment and housing stock, and credits Pan Arctic Oils with providing a reasonable alternative to government subsidies.

**Robinson, I.** *New Industrial Towns on Canada's Resource Frontier*. Research Paper No. 73. Chicago: Department of Geography, University of Chicago, 1962.

Described by Robinson as an "abstract" of his Ph.D. dissertation, the study *New Industrial Towns* was undertaken in an effort to emphasize "lessons of value for the future" building of resource towns. Concentrating on the communities of Kitimat, Elliot Lake, Drayton Valley and Schefferville, the author discusses issues as varied as townsite administration to social structure in his quest for a policy statement. Encompassed in a lengthy conclusion, Robinson's recommendations call for the greater supervision of community development by either a central or regional authority.

**Robinson, I.** "Planning, Building and Managing New Towns on the Resource Frontier." In *Urban and Regional Planning in a Federal State*, ed. W.T. Perks and I. Robinson. Toronto: McGraw Hill, 1978.

This study is a summary of several chapters of Robinson's most influential publication *New Industrial Towns of Canada's Resource Frontier*. Robinson's purpose in reworking the study is discussed in terms of a policy statement. In focusing on post-1945 resource communities, Robinson calls for the greater participation of government in the development of resource towns.

**Robinson, I.M.** "New Resource Towns on Canada's Frontier: Selected Contemporary Issues." In *Resource Communities: A Decade of Disruption*, ed. D.D. Detomasi and J.W. Gartrell. Colorado: Westview Press, Inc., 1984.

In suggesting that "resource towns have been a continuing feature of Canada's historical development," Robinson provides a good overview of the resource town phenomenon. This is particularly true in terms of what the author cites as his "shopping list" of resource town problems. Housing and housing need forms an integral part of Robinson's shopping list. Arguing that there is a most obvious discrepancy between housing preference and housing efficiency, Robinson clearly underlines one of the more contentious issues in the resource town housing debate. In general, most residents opt for single-family detached housing while the higher density, multi-family structures are not only more cost-efficient but also more energy efficient.

**Robinson, I.M. and P.W. Newton.** "Settlement Options for Non-Renewable Resource Development in Canada and Australia: A Comparative Evaluation and Decision Framework." In *Resource Communities: Settlement and Workforce Issues*, ed. T.B. Brenley, C.C. Neil and P.W. Newton. Melbourne: CSIR, 1988.

In what appears to be one of the best comparative studies of the resource town phenomenon, Robinson and Newton, offer not only an overview of the process but also a reasonable assessment of future policy directions. Indeed in proposing a "prototype evaluative framework for decision making," the authors develop a four point system of analysis. Interpreting settlement options, interest group involvement, economic-social viability and the relative advantages or disadvantages of the undertaking, Robinson and Newton attempt to define an overall development strategy. Their conclusions suggest that the fly-in option will increasingly become the most viable method of accommodating workers involved in the resource production process.

**Robson, R.S., ed.** *Northern Housing: Perspectives on Design and Construction*. Winter Communities Series No. 4. Winnipeg: Institute of Urban Studies, University of Winnipeg, 1987.

This volume is one of two publications appearing in the Institute of Urban Studies' Winter Communities Series that feature selected papers from the Northern Housing Conference. Addressing the issues of northern design and construction, this volume offers an important perspective on the building of northern houses. Ranging from Dick Bushell's discussion of "Form Following Function" architectural design to Nils Larsson's plea for information dissemination, the topic of design and construction is presented as a complex set of inter-related variables. Nonetheless, all five papers underscore the importance of the local component in the building process and further recommend the greater reliance on local input in the design and construction of northern houses.

**Robson, R.S.** *Canadian Single Industry Communities: A Literature Review and Annotated Bibliography*.

Sackville, N.B.: Rural and Small Town Research and Studies Programme, Mount Allison University, 1986.

Although not specifically concerned with the issues of northern housing, this report provides a good overview of the single industry town phenomenon. In presenting an historical perspective on the topic, this study details the evolution of planning theory, community infrastructures and the process of economic diversification. Perhaps most important, however, is the annotated bibliography which offers a brief description of approximately 250 pertinent publications.

**Robson, R.S.** "Flin Flon: A Study of Company-Community Relations in a Single Enterprise Community." *Urban History Review/Revue d'histoire urbaine* XII (February 1984).

This paper, which in large part is a summary of the author's Master's thesis, discusses the single enterprise nature of the community of Flin Flon, Manitoba. Describing the dominant role of the Hudson Bay Mining and Smelting Company (HBM&S) in all aspects of community affairs, the author conjures up visions of the company town. Detailing the company's involvement in town planning, housing, retail services, recreation, community institutions, protective services and the provision of utilities, Robson suggests that over the twenty year period the HBM&S slowly divested itself of community responsibilities.

**Robson, R.S.** *Planning for Winter Livability in the Resource Sector*. Winter Communities Series No. 2. Winnipeg: Institute of Urban Studies, University of Winnipeg, 1987.

As "a critical appraisal of the resource community phenomenon," Robson's study questions the viability of the resource town phenomenon. Although the author argues that in the past the resource town "has responded well to the issues of environmental management," he maintains that the "optimum winter design solution" is the non-permanent community. Featuring demountable housing, trailer-styled bunkhouses and sectional dwelling units, the non-

permanent townsite is cited as a "more realistic appraisal of northern constraints."

**Robson, R.S.** "The Urban Frontier: Resource Towns of the Prairie Provinces." A paper presented at the Canadian Historical Association Annual Conference, University of Manitoba, June 1986.

The author traces the history of the prairie resource town phenomenon from approximately 1880 to 1970. Beginning with the early coal towns of Alberta through the "holistically" designed towns of Flin Flon and Sherridon, Manitoba and eventually concluding with a number of comprehensively planned towns, the author maintains that government involvement in the creation of prairie resource communities dramatically increased over the ninety year period. The three provincial governments by participating in the development of communities such as Leaf Rapids, Uranium City or Fort McMurray helped to ensure the central place of social and economic considerations in townsite planning.

**Rose, A.** *Canadian Housing Policies. Background Paper* (Canadian Conference on Housing) No. 2. Ottawa: Canadian Welfare Council, 1968.

Rose's study details the evolution of so-called Canadian "housing policy" from 1940 to 1968. Although the *Dominion Housing Act* of 1935 may have been a more obvious starting point, the author clearly defines the central place of housing legislation as a measure of housing policy. While Rose recognizes that legislation "is not tantamount to housing policy per se," he does argue that legislation reflects a new direction in policy. The increasing role of government -- particularly the federal government -- demonstrates a perceived need for "better housing and living conditions."

**Royle, J.** "Fibreglass Polyester Breakthrough." *Livable Winter Newsletter* 5 (February 1987).

Referring specifically to the work of the Engineering Pultrusions Corporation of Mississauga, Ontario, Royle argues that fibreglass-reinforced polyester (FRP) has reduced many of the problems associated

with cold-climate construction. Citing the examples of the Gordon Robertson Education Centre at Frobisher Bay, a laboratory at Igloolik and the airport buildings at both Fort Chimo and Frobisher Bay, the author graphically describes the benefits of FRP structures. In discussing the material's mouldability, lightweight, weatherability and competitive costs, Royle maintains that a "real boom in FRP construction must come soon."

**Rushdy, S., G.C. Power and P.G. Cadden.** "Housing Policies for a Newly-Created Resource Town: A New Application of the Boom H Simulation Model in Canada." *Canadian Journal of Regional Science* IX (Summer 1986).

In an effort to provide "comprehensive policy alternatives" in the development of resource town housing, Rushdy et al. have refined a "generic model" of boom town expansion. Using Fort McMurray as a primary case study the authors suggest that many of the negative effects of instant growth can be mitigated with proper planning. They conclude with a call for greater government participation in both the physical and economic planning of the new town. This is particularly pertinent in the non-company sector where the authors maintain that the investment risk in housing could be considerably reduced through comprehensive government activity.

## S

**Moshie Safdie and Associates.** *General Development Plan, Municipality of Frobisher Bay NWT*. Montreal: Moshie Safdie and Associates, 1977.

In an effort to "update" the existing plan of Frobisher Bay as well as to provide a guide for future development, the consulting firm of Moshie Safdie and Associates was charged with the preparation of the official General Development Plan for Frobisher Bay. A large portion of the Plan details the need for the rehabilitation of housing

stock and for the construction of new units. The consultant's report describes both a "divergence" in housing type and quality and further suggests that the "contradiction" is a source of "social discontent." The report's final recommendations include a variety of measures to alleviate the housing crisis. Ranging from demolition to renovation, the conclusions indicate that much of the housing stock requires attention.

**Saskatchewan, Northern Municipal Council.** *Report on the Housing Needs Survey, Northern Saskatchewan.* La Ronge: The Northern Municipal Council, 1977. (mimeo).

Jointly sponsored by the Department of Northern Saskatchewan and the Department of Regional Economic Expansion, this report is a "comprehensive survey" of housing needs in the Northern Administration District of Saskatchewan. Detailing housing conditions in 37 northern communities, the study provides both a thorough overview of the circumstances of northern housing and a data base for further analysis. In suggesting that "no other housing survey in northern Canada has resulted in such an accurate and rich statistical collection" of information, the report is clearly a preliminary sampling of its intended purpose.

**Sayegh, K.S., ed.** *Canadian Housing: A Reader.* Waterloo: University of Waterloo, 1972.

In an effort to provide an overview of Canadian housing, Sayegh has drawn together a collection of essays that deal in one way or another with the issues of Canadian housing. Ranging in scope from Humphrey Carver's "A House is a Place for Flying Apart" to Marvin Lipman's "Housing and Environment," the collection of papers does indeed allow for a well-rounded interpretation of Canadian housing. Of particular significance to the northern housing issue are studies such as R. Bucksar's "The Squatter on the Resource Frontier" or R.W. Bailey's "Housing for Indians and Métis in Northern Saskatchewan."

**Scott, B.** "Impacts of Northern Mine Closure: Historical Perspectives. A Guide for the Future." A practicum

submitted in partial fulfilment for a Master's degree, Winnipeg, Natural Resources Institute, University of Manitoba, 1984.

In response to the "large number of mine closures in Canada," and the related socioeconomic problem of downsizing, Scott examines the "wind-down" process with a view to providing a wind-down equation. Specifically referring to the closures at the Eldorado Nuclear Limited's mine (Uranium City), Echo Bay Mines Limited's facilities (Port Radium) and the Whitehorse Copper Mine's plant (Whitehorse), the author provides a good overview of the process. Detailing problems such as lost equity, relocation costs, retraining expenses and the decommissioning of infrastructure, Scott clearly underscores the magnitude of the phenomenon. Recognizing the tripartite nature of the problem, Scott's recommendations include the planning for downsizing to accompany the initial development proposal.

**Selby, J.** "Major Themes In the Evolution of Canadian Rental Housing Policy, 1900-1984." A Paper Presented to the Canadian Urban Studies Conference, University of Winnipeg, August, 1985.

Arguing that there is "a serious problem with Canada's rental housing sector," Selby offers an overview of the three factors that "have shaped the rental housing policy-making environment in Canada." Defined as: the assumptions related to the appropriate role of government in housing; the opportunities for government intervention in the rental sector, and; an inadequate definition of the nature of the rental problem, Selby's interpretation provides an interesting perspective of Canada's rental housing problems. Maintaining that the "rental market responds only to effective demand, not, social need," the author clearly articulates the major impediment to a workable rental policy.

**Shaffner, R.** "Housing Policy in Canada: Learning from Recent Problems." *Howe Research Institute Observatory* 9 (1975).

Written in part as a response to the housing "problems of 1973 and 1974," this report clearly articulates the argument for long-range, housing

supply stimulation programs. In doing so, the study offers a critical appraisal of government's "scatter-gun approach to housing policy." Although government participation in the housing sector has increased, many of the "serious problems" persist. Arguing for price controls, the stabilization of the construction industry and a balanced housing-monetary investment policy, the report defines housing as "a social priority."

Shaw, W.G.A. "Homes: The Neglected Element in Canadian Resource Town Planning." *The Alberta Geographer* 7 (1971).

In suggesting that housing is a much neglected aspect of single industry town planning, Shaw attempts to assess levels of "home satisfaction" in Canadian resource towns. Referring specifically to the communities of Kitimat and Kimberley, British Columbia, Shaw predictably concludes that home satisfaction increases with the greater availability of owner-occupied, single family dwellings. While the author concedes that "multi-family structures" are often the only feasible form of housing, he also suggests that these structures "require superior design" if they are to provide satisfactory accommodation. In conclusion, Shaw maintains that planners "should devote a greater share of their expertise to the planning of more suitable homes."

Sherwood, A. "Building in the North." NRCC No. 14550. Ottawa: National Research Council of Canada, 1974.

Sherwood, a northern pioneer, provides a firsthand account of "early building techniques" in the Canadian North. His reminiscing also provides an anecdotal history of northern development. From Fort Chipewyan in Northern Alberta to Fort Good Hope in the Far North, Sherwood chronicles life on the frontier. In terms of building style, the author's focus is the log structure. Beginning with the "Manitoba frame" method of construction, the author describes the evolution of the log building process.

Shrimpton, M. and K. Storey. "The Urban Miner: Long Distance Commuting to Work in the Mining Sector and Its Implications for the Canadian North." A Paper Presented to the Canadian Urban and Housing Studies Conference, Institute of Urban Studies, University of Winnipeg, February 18-20, 1988.

Discussing some of the implications of the long distance commuting option (LDC), Shrimpton and Storey argue that the long range viability of northern single industry towns has been drastically undercut by the non-community alternative. Describing seventeen fly-in operations across the North, the authors offer a most detailed analysis of the phenomenon. From workforce statistics to network linkages, the authors provide one of the best accounts of the LDG process. Their conclusions clearly illustrate the regional out migration that generally results from the incorporation of the fly-in option, and further, underscore the problematic nature of northern settlement.

Siemen, L.B. "Single Enterprise Communities on Canada's Resource Frontier." *Contact* 8 (August 1976).

This study, which is based upon a paper presented at a seminar in Kambala, Australia, is an "overview of some Canadian studies and observations on the planning of, and subsequent quality of life in" the Canadian single-enterprise community. It is a synthesis of previously published material on the topic of the single enterprise community. Citing examples such as Kitimat, Thompson, Norman Wells, Lynn Lake or even Inuvik, the author raises the issues of planning for climate, privacy, psychological well-being and integrated housing.

Siemens, L.B. *Single Enterprise Community Studies in Northern Canada*. Centre for Settlement Studies, No. 5. Occasional Paper No. 7. Winnipeg: Centre for Settlement Studies, University of Manitoba 1976.

In a general overview of the Canadian single enterprise community phenomenon, Siemens discusses not only the characteristics found therein, but a broad collection of literature dealing with the phenomenon. Most important to the study,



however, is the author's treatment of what he terms "the goals of northern mining communities." In defining the objectives of community development in terms of an effort to "maximize community satisfaction and minimize out-migration," Siemens details issues ranging in scope from stress symptoms to the tax problems.

**Simon, J.L., R.R. Forster, T. Alcese, E.A. Brabec and F. Ndubis.** *A Culturally Sensitive Approach to Planning and Design With Native Canadians.* A report prepared for Canada Mortgage and Housing Corporation, 1984.

In arguing that the "planning and design of native communities has not been successful" in the Canadian context, the authors offer a "Responsive Planning Approach" as a partial solution to the misinterpretation of native housing needs. Stressing both the local initiative and the use of incremental plans, as opposed to broadly defined master plans, the authors underscore the need to maximize local input. At the same time, and by providing an overview of the Burwash Native Peoples Project, the authors make a good case for cultural sensitivity in the design process.

**Simonen, E.R. and G.W. Heinke.** *An Evaluation of Municipal Services in the Mackenzie River Delta Communities.* Toronto: Department of Civil Engineering, University of Toronto, 1970.

Largely based on Simonen's Master's thesis, this study is a critical evaluation of the municipal services available in the Mackenzie River delta communities of Arctic Red River, Tuktoyaktuk, Aklavik, Fort McPherson and Inuvik. In examining the provision of such crucial services as water supply, waste collection and disposal, surface drainage and road maintenance, the authors conclude that there is a general deficiency in municipal programs. Most pronounced in the area of "water supply and the collection and disposal of sewage," Simonen and Heinke further detail the comparative merits of utilidor and tank truck servicing. Their summary indicates that even with additional costs, the utilidor is still the long range solution to the problem of water supply and sewage disposal.

**Sinclair, D.A.** *Housing in a Severe Climate.* Ottawa: Division of Building Research, National Research Council, 1964.

Cited as a series of five papers that have been translated from Russian into English, this study allows for a comparative appraisal of northern housing. As suggested in the preface by Robert Legge, Director of the Division of Building Research, the problems of northern housing and housing design in the USSR "are very similar to those encountered in the northern regions of Canada." Of particular note in terms of the Soviet example, is designing homes for climatic conditions. A special emphasis has been placed on wind barriers. Whether in terms of wall width or building orientation, the Soviets seem to come to grips with the northern wind.

*Single Enterprise Communities in Canada: Report to Central Mortgage and Housing Corporation.* Kingston: Institute of Local Government, Queen's University, 1953.

Prepared by the Institute of Local Government at Queen's University, Single-Enterprise Communities is the most detailed analysis of the single industry community available in Canada. Although in some respects it is out-dated, particularly in terms of its recommendations, it remains the formative study of the phenomenon. Citing 155 communities of the single industry variety with total inhabitants in excess of 189,000 persons, the study's value lies both in its interpretation and the fact that it has established the framework for future analysis.

**Slobodin, Richard.** *Métis of the Mackenzie District.* Ottawa: Canadian Research Centre for Anthropology, 1966.

Slobodin's study of the Métis, although somewhat dated, is considered one of the formative studies of Métis society. Tracing the development of communities such as Hay River, Arctic Red or Fort McPherson, the author provides a detailed account of settlement in the Mackenzie district. Chronicling migration patterns, occupational structures and household composition, Slobodin offers a most descriptive account of Métis settlement. Of particular interest is the "clustering" of Métis

households in a style similar to neighbourhood development.

**Smith, L.B.** *Anatomy of a Crisis: Canadian Housing Policy in the Seventies.* Vancouver: The Fraser Institute, 1977.

Smith's study provides a detailed overview of Canadian housing policy for the period from 1935 to 1977. He convincingly argues that in the mid-1970s housing policy "underwent a major shift in orientation," which witnessed a dramatic increase in government activity. Using housing policy as a method of "income distribution" the Canadian government, according to Smith's interpretation, undercut the private sector's ability to provide and maintain housing stock. Concluding that the policy changes "are likely to be quite harmful" to the overall standard of housing, Smith calls for the reorientation of policy.

**Smith, L.B.** *Housing in Canada: Market Structure and Policy Performance.* Research Monograph No. 2. Ottawa: Central Mortgage and Housing Corporation, 1971.

This report was undertaken in an effort to determine the extent of the so-called "urban crisis" as defined by the Federal Task Force on Housing and Urban Development. Although it does not deal specifically with the issues of northern housing, by summarizing such key programs as direct lending or federal loan guarantees, the study provides valuable insight into the overall workings of the housing market. In general and while Smith applauds the housing initiative of CMHC, he does so with the qualification that the Corporation should continue to concentrate its activities in "stabilizing residential construction."

**Social Planning Council of Winnipeg.** *A Review of Changes in the Living Conditions of the Registered Indian Population of Manitoba during the 1970s.* Winnipeg: Social Planning Council of Winnipeg, 1982.

Prepared in response to the Manitoba Indian Brotherhood publication, *Wahbung: Our Tomorrows*, this report reviews the "broad range" of native

living conditions in the province of Manitoba. Using a liberal assortment of statistical tables, the study not only provides a review of native living conditions, but is a good source of demographic information. The author's conclusions suggest that while conditions have improved for the native population, there is still a great disparity between white and native living conditions. In terms of housing, for example, the report argues that "substantial but insufficient additions" have occurred, leaving the native population with a stock of overcrowded and inadequate dwelling units.

**Speers, R.L.** *Preliminary Work Toward Building Form Siting and Orientation in SubArctic Climates.* Series 2. Research Report No. 26. Winnipeg: Centre for Settlement Studies, University of Manitoba, 1976.

Financed in part through funds provided by the Central Mortgage and Housing Corporation, this study offers valuable insight into designing buildings suitable for subArctic climates. Describing the major environmental factors as wind, snow and sun, the study recommends the incorporation of a variety of climate oriented design techniques in the early stages of community planning. Included here, for example, are shelter belts, properly oriented sloping terrains, as well as issues of building shape, size and orientation.

**St. Germain, J.S.** *Métis Settlement Housing Study.* Edmonton: Department of Housing and Public Works, 1977.

This report which was prepared in an effort to facilitate the transfer of housing responsibility from the Department of Social Services and Community Health to the Department of Public Works and Housing, examines the housing conditions of Alberta's eight Métis settlements. Detailing program vehicles, housing conditions, rehabilitation needs and projected housing requirements, the study provides a thorough evaluation of Métis housing stock. The final recommendations call for the greater co-ordination of housing programs, the incorporation of local input in the housing process and the utilization of manpower training programs to facilitate both the construction of housing units and the employment of Métis people.

Stafford, J. and B. McMillan. *A Feasibility Study of Residential Intensification in Single-Industry Towns: A Case Study of Hemlo*. Ottawa: CMHC, 1987.

In recognition of the problems encountered in the development and maintenance of housing stock in the single industry community, Stafford and McMillan propose the incorporation of a "special, more flexible housing" strategy as a partial solution to the seemingly inevitable boom and bust cycles. Arguing for what they describe as "residential intensification," the authors maintain that through infill development and unit conversions a much needed "elasticity" of housing stock in the single industry community can be gleaned. Citing the examples of Marathon and Manitouwadge, Stafford and McMillan offer strong evidence in support of the notion of residential intensification.

Stager, J.K. *Baker Lake, NWT, A Background Report of its Social and Economic Development*. A report prepared for the settlement council of Baker Lake and Polar Gas Project, 1979.

In suggesting that Baker Lake "is a society in transition," Stager attempts to provide a blueprint for future growth. Although the author describes the economic basis of the community as a "mixed" economy, the majority of Inuit inhabitants have retained many of the more traditional aspects of their culture. At the same time, however, since approximately 1967 when 42 government subsidized low-rental houses were constructed in the community, the community more readily resembles modern society. The continuing growth of the settlement is guaranteed, according to Stager, through natural population increase and facilities will by necessity have to be expanded to accommodate the growth.

Stanwood, L. "Home--Pine Point." *North XI* (May/June 1964).

Stanwood, public relations officer for Pine Point Mines' parent company, the Consolidated Mining and Smelting Company, provides the company perspective of the Pine Point development project. In maintaining that the new town is on "par with most modern communities in Canadian suburbia,"

he clearly conjures up images of a modern boom town. Although Stanwood's narrative offers little of substance, the photographs included in the text do support the contention that Pine Point was a wilderness suburb.

Steele, M. "An Economic Analysis of Public Housing in Yellowknife, Northwest Territories." M.Sc. thesis, University of British Columbia, 1986.

Steele's thesis "evaluates the Public Housing Program in Yellowknife" on the basis of economic efficiency and equity. Her conclusions suggest that the social housing program is not economically efficient. Using 1981 census material, the author's housing sample is approximately 8 percent of the total rental housing stock of Yellowknife or 179 of 2,250 units. While her findings indicate that the program has promoted a small degree of equity in Yellowknife housing, the optimum solution is described as a shelter allowance program which would provide a more efficient means of social welfare.

Steele, M. *The Demand for Housing in Canada*. Ottawa: Statistics Canada, 1979.

Using 1971 census data, Steele attempts to assess "the influences underlying three housing consumption decisions." Cited by the author as the separate-dwelling decision, the tenure decision and the quality-of-housing decision, these so-called consumption decisions are presented as key elements in the housing process. Although Steele identifies both provincial and regional variations, her findings indicate that there is a fairly well-established set of variables impacting on the housing consumption process. Of particular interest, however, is the slight variation noted between urban and rural decision making and the greater preference for "owner-occupancy" in the rural sector.

Stelter, G.A. and A.F.J. Artibise. "Canadian Resource Towns in Historical Perspective." *Plan Canada* 18 (March 1978).

In their capacity as guest editors of this special issue of *Plan Canada* on Canadian Resource Towns, Professor's Stelter and Artibise have undertaken

to provide an introduction to the Canadian resource town phenomenon. In an effort to articulate a "general historical overview," the authors subtly connect the themes of staple dependency with metropolitanism and suggest that the resource community reflects "the harsh reality of Canada's development."

**Stelter, G.A.** "The Urban Frontier in Canadian History." In *Cities in the West: Papers of the Western Canadian History Conference*, ed. A.R. McCormack and I. Macpherson. Ottawa: National Museum of Man, 1975.

A paper presented to the Western Canadian Urban History Conference in 1974, "The Urban Frontier" describes the single industry community in the broadest historical sense as a descendent of the 17th and 18th century colonial town. Drawing heavily upon the theory of metropolitanism, Stelter argues that the colonial town, be it Halifax in the 18th century or Sudbury in the 20th century, was a "dependent" community that often functioned as a vassal of a metropolitan power.

**Stevenson, B.** "Hay River Reserve Housing Project." *Musk-Ox* 25 (1979).

Stevenson, Program Assistant for the N.W.T. Housing Corporation in the Hay River District, provides a detailed account of the Hay River Reserve housing project. Funded by the Small Settlement Home Assistance Grant and organized into a Project Group of ten to twelve men, the Hay River crew erected ten single family dwellings. Consisting of one to three bedroom units, the total unit cost of the project amounted to approximately ten thousand dollars. Echoing the positive aspects of self-help, Stevenson concludes with the notion that the Hay River project was "a fine example of what can be done in a community when a group project is properly organized."

**Stevenson, D.S.** *Problems of Eskimo Relocation for Industrial Employment*. Ottawa: Northern Science Research Group, Department of Indian Affairs and Northern Development, 1968.

As a response to the variety of Eskimo relocation programs undertaken between 1963 and 1967, this report examines and assesses the "reasons for the variable success" rates of the several projects. With particular reference to the Great Slave Lake Railway operation, the Yellowknife mining industry and the Lynn Lake mining operation, Stevenson details the "syndromes of maladjustment." In suggesting that successful migration was directly related to the level of "comprehension" of the migrants as well as to the "willingness" of the individual to undertake the move, the author clearly underscores a cultural conflict. This is not only apparent between the white-Eskimo population, but also between the Eskimo-native population.

**Streich, P.A.** "Canadian Housing Affordability Policies in the 1970s: An Analysis of Federal and Provincial Government Roles and Relationships in Policy Change." Ph.D. thesis, Queen's University, 1985.

Described as a study in "public policy," this dissertation documents the local variation in housing policy. Focusing her study on housing affordability policies, Streich develops a jurisdictional argument which suggests that since the mid-1960s the policy initiative has moved away from the central government. Although little mention is made of northern housing issues, the jurisdictional conflict between the federal and the various provincial governments on housing policy, has major overflow effects in the North.

**Streich, P.A.** *Rural and Remote Housing in Saskatchewan*. Background Report Number 3, Shelter and Incomes Task Force. Ottawa: Canada Mortgage and Housing Corporation, 1976.

This report, which was prepared in an effort to facilitate the transition from the Rural and Remote Housing Program to the Rural and Native Program, is a thorough overview of the conditions of Northern Saskatchewan housing. Included in the analysis is a program related inventory of housing stock, an assessment of delivery agents and their roles in providing housing, client group appraisals and a comparative interpretation of subsidy costs. Detailing issues such as land assembly problems, tenant selection discrepancies and program

inequities, Streich paints a fairly bleak picture of the northern housing experience.

**Swiderski, A.** *Discussion Paper #8, Implications of Land Claims on Community Planning and Lands Administration in the NWT -- Towards a Community Based Approach.* Yellowknife: Government of the Northwest Territories, 1985.

In an effort to discuss the implications of land claim settlements on community planning, Swiderski isolates the community of Cape Dorset for case study analysis. The author's conclusion indicate that the "potential scope of the claim settlements" will result in demands that will far exceed the housing capacity of the community. Projecting an increased population rate of over 54 percent by the year 2005, Swiderski argues that "Total Housing Required" in Cape Dorset to meet the demand is in the neighbourhood of 180 units. The bottom line, according to the author, is a staged training program which would allow the native population to develop the resources inherent in the settlement process without undue stress.

## T

**Taunton, G.F.** *Baseline Socio-Economic Profile of Northern Manitoba.* A report prepared for Polar Gas Project. Winnipeg: InterGroup Consulting Economists Ltd., 1978.

This report, although now dated, is a tremendously detailed study of that region of the province which lies north of 53°. Divided into "two major sections," the study chronicles the overall socioeconomic conditions of the district, as well as offering fifteen community profiles of those settlements "most likely to be affected by the proposed Polar Gas" scheme. Touching on topics that range from hospitalization rates to rental vacancy ratios, Taunton develops a good overview of the northern community. In terms of housing this includes, unit size, quality, density and even a brief description of delivery agents.

**Tencha, G.J.** "A Redevelopment Plan for the Town of Churchill, Manitoba." M.A. thesis, University of Manitoba, 1963.

Cited by the author as a "redevelopment plan" for the community of Churchill, Tencha attempts to provide a means for the eradication of residential and commercial "blight" and a program for the creation of a "new environment." Recommending stringent zoning bylaws as the method by which reorganization will occur, the author proposes a staged schedule of redevelopment. Working with four "distinctive districts," the author maintains that it would be possible to operate with "a minimal discomfort" level for local inhabitants. In terms of housing, the redevelopment plan calls for an almost total replacement program as "sixty-three percent of all buildings were found to be seriously blighted and not worth rehabilitating."

**Thomas, D.K. and C.T. Thompson.** *Eskimo Housing as Planned Cultural Change.* Ottawa: Department of Indian Affairs and Northern Development, 1972.

Although this report is a brief and often superficial account of "Eskimo Housing," it does provide some insight into Inuit culture. This is particularly true of the Inuit response to the federal government's rental housing program as introduced in 1965. The authors suggest that by attempting to draw the Inuit "into the overall Canadian society" through housing programs, the federal government contributed not only to the breakdown of the program but also to the alienation of the Inuit people. The so-called "crash" housing program failed to consider the unique quality of Inuit society.

**Thompson, C.T.** *Patterns of Housekeeping in Two Eskimo Settlements.* Ottawa: Northern Science Research Group, Department of Indian Affairs and Northern Development, 1969.

In 1965 after the federal government had initiated the Northern Housing Program, the traditional Inuit lifestyle underwent a major transformation. These "changes in social relations" are examined by Thompson in an effort to determine the impact of the housing program on Inuit culture. Isolating the two communities of Baker Lake and Cape

Dorset, the author discusses not only the rental program per se, but also the numerous problems of "housekeeping" encountered by the Inuit.

**Thompson, Berwick, Pratt and Partners.** *Townsite Location and Development Study for the Territorial Government of the Yukon in Association with Anvil Mining Corporation.* Vancouver, 1967.

Prepared as the townsite planning report for the community of Faro, Yukon, this study "considers the location and development of a townsite for a population of 1,070." Commissioned by the Anvil Mining Corporation, the report offers a detailed description of everything from topographical considerations to population ratios. In terms of community infrastructure the study provides a thorough discussion of residential development. In this regard housing density, site location, construction methods, prefabrication and transportation costs are all considered as integral elements of the planning process.

**Thompson, Berwick, Pratt and Partners,** *Conceptual Plan, Tumbler Ridge.* Vancouver: Thompson, Berwick, Pratt and Partners, 1978.

In a most detailed discussion of "Housing Sector Problems" in the resource community, the firm of Thompson et al. provides a good overview of selected housing issues. Although their report specifically documents the case of Tumbler Ridge, B.C., their conclusions are pertinent to most resource towns. Touching on issues such as residential type, affordability, adaptability and design innovation, the authors conclude with a call for greater government participation. In this fashion, a serious commitment to problem solving is seen to be a major step towards alleviating the housing conundrum.

**Tough, G.** "Mining in the Canadian North." In *The North: Studies in Canadian Geography*, ed. W. Wonders, Toronto: University of Toronto Press, 1976.

Tough's study of the mining industry in Northern Canada provides an overview of the interplay

between government and industry in the formulation of policy initiative. In suggesting that careful planning is necessary "to the maintenance of Canada's extractive industries, Tough defines a central role for all levels of government. This he argues, applies not just through industrial incentive programs such as the Regional Development Incentives Act, but also through the "replacement support" of declining communities. For example, by citing Elliot Lake as evidence of "flawed resource town planning," the author makes the point that greater attention to the resource base of the community is necessary for the proper planning of community development.

"Town Planning in the Soviet Arctic." *The Polar Record*, 12 (May 1965).

Presented as a brief summary of a special edition of the Soviet journal *Problem Severn*, this paper provides an overview of building techniques devised for the Soviet Arctic. Detailing the importance of compact design, wind shelter areas and the construction of vertical multi-family units, the study offers valuable insight into the Soviet northern experience. Referring specifically to communities such as Deputatskiy, Daldyn or Noril'sk, the paper provides for interesting Canadian-Soviet comparisons. Of particular note in this regard is the relatively early attempt made by Soviet officials to have the much maligned utilidor placed underground.

*Towns, Wheels or Wings? For Resource Development: An Annotated Bibliography.* Prepared for the Western Resource Program of The Institute for Research on Public Policy. Victoria, 1986.

Under the provocative title of *Towns, Wheels or Wings*, this report provides a six part annotated bibliography which was intended to "encapsulate the choice between building new towns and short (wheels) or long distance (wings) commuting by workers" involved in the resource production process. With topics ranging from "Planning and Development" to "The Public Policy Environment," the report offers a fairly concise synopsis of the literature related to the resource town phenomenon. Included are several entries detailing the circumstan-

ces of town planning, housing, downsizing and support services in the resource community.

"A Typical House for Industrial Townsite." *Contract Record* 30 (November 1916).

This study of industrial housing suggests that the major catalyst for Canadian model town development was the sense of "keen competition and advanced business methods" that prevailed during the World War I era. Citing the activity of the Canadian Copper Company at both Creighton and Copper Cliff, Ontario, the study provides a graphic description of the "very comfortable accommodation" that was provided at "surprisingly low cost." The so-called "cottages" were designed and constructed "on modern and scientific lines, conducive to the health and comfort of the working men and their families."

## U

**Underwood, McLellan and Associates, Ltd.** *Preliminary Analysis of Facilities for The Townsite of Churchill, Manitoba and Vicinity.* Underwood, McLellan and Associates Ltd., 1958.

A report prepared for the Department of Public Utilities, this study evaluates the options for utility service in the townsite of Churchill, Manitoba. It considers three alternatives: servicing the existing townsite; servicing a redeveloped townsite; or, servicing a completely new townsite. The final recommendations which are based on the conclusion that a "large number of the existing dwellings are not in fit condition to be serviced," indicate that the servicing of a redeveloped townsite is the most feasible plan. The redevelopment program calls for the construction of high-density, multi-familied units.

**Uranium City.** *Municipal Corporation of Uranium City and District.* Report and Recommendations of the Steering Committee of the Uranium City Task Force. Uranium City: Municipal Corporation of Uranium City and District, May 1982.

Prepared for the "three principals" -- Eldorado Nuclear Limited, the Government of Canada and the Government of Saskatchewan -- this report was undertaken in effort to determine what options, if any, existed for the community of Uranium City after the closure of the Eldorado Nuclear mine and mill. In a realistic appraisal of the community's future, the report concluded that "nothing will prevent a dramatic decline of Uranium City." The shutdown, which affected the lives of 2,800 residents, completely removed the economic basis of the community. As a result, the steering committee did not suggest economic alternatives, but rather, it prepared a wind-down package that included indemnification, the relocation of residents and the "decommissioning" of facilities.

**Usher, P.J. and G. Beakhust.** *Land Use Regulation in the Canadian North.* Ottawa: Canadian Arctic Resources Committee, 1973.

In a most objective appraisal of northern land management policy, Usher and Beakhust offer a condemning critique of government inactivity. Referring specifically to the colonial status of the Canadian North -- vis-à-vis the Canadian South, the authors adamantly argue that "the government still has no comprehensive policy concerning the north." Indeed, by suggesting that government and industry "work hand in hand in the north," the authors maintain that government's ad hoc approach to northern development is geared towards industrial expansion. Sacrificing traditional native land use and established settlement patterns, the development at-all-costs policy has left in its wake a large number of malcontents.

## V

**Valentine, V.F.** "Some Problems of the Métis of Northern Saskatchewan." *The Canadian Journal of Economics and Political Science* XX, 1 (1954).

In focusing on the year 1944 as a pivotal year for Saskatchewan's northern Métis population, Valentine clearly delineates government policy as a major

source of community hardships. In particular, he isolates the creation of the Saskatchewan Fur Marketing Service and the implementation of the Block Conservation System, as the two programs that have deprived the Métis of their traditional lifestyle. They have, in effect, according to Valentine, forced the Métis to abandon their semi-nomadic, family oriented, hunting culture for a more sedentary, localized sense of community.

**Valentine, V.F. and R.G. Young.** "The Situation of the Métis of Northern Saskatchewan in Relation to his Physical and Social Environment." *Canadian Geographic* 4 (1954).

Concentrating on that area of Saskatchewan that lies north of the 55th parallel of latitude, Valentine and Young document the plight of the region's Métis population. Suggesting that since 1940 the Métis traditional lifestyle has undergone a major transition, the authors attempt to interpret the impact of "external forces" on Métis culture. Specifically citing the role of government and the resource development companies, Valentine and Young categorize the process as a "confused period of change."

**Van Ginkel Associates Ltd.** *Building in the North, Responding to the Environment.* Vol. I. Canadian Arctic Gas Study Ltd., 1976.

This study which was commissioned by Canadian Arctic Gas Pipeline Ltd., Gulf Oil Canada Limited, Imperial Oil Limited and Shell Canada Limited, is an impact study of oil and gas development in the Mackenzie region. As such, it is a thorough discussion of "sound design" techniques for building in the North. This includes not only construction and building methods but also community planning, site location and a variety of other issues related to northern development. Most noteworthy is the author's suggested use of colour to enhance the appeal of the northern community.

**Van Ginkel Associates Ltd.** *Building in the North Responding to the Environment: Experience and Projects.* Vol. II. Canadian Arctic Gas Study Ltd., 1976.

The second of two studies detailing the impact of oil and gas development in the Mackenzie region of Western Canada, this volume "is a compilation of building and planning projects in cold regions." Detailing the development of communities such as Fermont, Quebec, Inuvik, N.W.T. and Svappavaara, Sweden, the authors provide a thorough discussion of the contemporary problems of the northern town. Of particular importance is the unique northern environment which has spawned a variety of specifically northern building measures. Wind screening, town centre complexes and housing clusters are all discussed as important responses to the northern environment.

**Van Ginkel Associates Architects and Planning Consultants in Association with Hedlin, Menzies and Associates Ltd./Economic Consultants.** *Transition in the North: The Churchill River Diversion and the People of South Indian Lake.* Vols. I & II. Winnipeg, 1967.

Cited as an "exhaustive examination of the settlement and the problems at South Indian Lake," this two volume study not only considers the issues of the Churchill River Diversion project but also northern settlement generally. In this sense and by calling for the creation of "new permanent communities in the North," the consultants offer a plan for the revitalization of the northern community. The South Indian Lake community study is a detailed interpretation of the northern relocation program.

**Van Ginkel, B.L.** "New Towns in the North." *Contact* 8 (August 1976).

Van Ginkel's study focuses on the particulars of the northern community with a discussion of features that constitute "northern conditions for town building." The author details the wide variety of problems associated with the extreme climate and unstable terrain in an effort to demonstrate the unique quality of the northern community. Citing examples such as Inuvik, N.W.T., Svappavaara, Sweden, or Resolute Bay, N.W.T., Van Ginkel clearly articulates the necessity of windscreening, clustering houses, single roof town centre complexes, and indoor walkways in the planning of northern communities.



**Van Stone, J. W.** *The Changing Culture of the Snowdrift Chipewyan*, National Museum of Canada, Bulletin No. 209. Anthropological Series No. 74. Ottawa: National Museum of Canada, 1965.

Recognized as one of the formative anthropological studies of native culture, Van Stone's analysis provides not only a good descriptive account of the community of Snowdrift, N.W.T. but also tremendous insight into the accultural process. His conclusions which have since been tested elsewhere, show that Snowdrift evolved as a "deculturated community," complete with "a poor-white type of subculture." Even the trapping economy which is so traditional to the native society is described by the author as "deculturative." The accultural process is most vividly portrayed in the physical appearance of the community. Described as a "cluster of some twenty-six log houses," the quality of the housing stock denotes a shifting culture.

**Van West, C.** "Acculturation by Design: Architectural Determinism and the Montana Indian Reservations, 1870-1930." *Great Plains Quarterly* 7 (Spring 1987).

Although Van West's interpretation is a case study of the northern American plains, his analysis offers tremendous insight into the native housing issue. Detailing the struggle of cultural assimilation on the plains the author suggests that "the introduction of squared and rectangular structure" was "a disturbing intrusion to the shape of the built environment as envisioned by plains people." While Van West does make a distinction between pre- and post-1900 architectural building forms, his conclusions indicate that regardless of the time period, the structural shape of reservation buildings more accurately reflected the "attitude and assumption of their builders than the real needs of native Americans."

**Vinson, T.S., ed.** *The Northern Community: A Search for a Quality Environment*. Proceedings of a Conference on the Northern Community: A Search for a Quality Environment. New York: American Society of Civil Engineers, 1981.

This volume is the published proceedings of the fourth "Cold Regions Meeting" which was held in

Seattle, Washington. Organized into seven topic areas, and ranging in scope from planning and development to water resources, the study provides an overview of the contemporary northern community. Very much attuned to the issues of winter livability, the selection of papers discuss everything from windchill to isolation. Case studies include Leaf Rapids, Nanisivik, Pine Point and Frobisher Bay.

## W

**Waldram, J.B.** "Hydro-Electric Development and the Process of Negotiation in Northern Manitoba, 1960-1977." *The Canadian Journal of Native Studies* IV, 2 (1984).

Examining what the author cites as the "process of negotiation" conducted to facilitate hydro-electric power development in northern Manitoba, this paper offers an interesting perspective to the problems of industrialization. This is particularly true of the impact of the Grand Rapids Hydro Project and the Churchill River Diversion Project. Focusing on the "modernization/acculturation" model, Waldram argues that the provincial government's relocation program offered little in the way of permanent economic stability. The so-called "structural" items of the compensation package measured only the immediate needs of the two displaced communities.

**Waldram, J.B.** "Native People and Hydro-electric Development in Northern Manitoba, 1957-1987: The Promise and the Reality." A paper presented at the Northern Manitoba 75th Anniversary Conference. The Pas, October 1987.

Waldram's study is an overview of the impact of hydro-electric power development on Manitoba's indigenous peoples. Isolating the two communities of Chemawawin and South Indian Lake, the author suggests that few, if any, real benefits have accrued to the native population as a result of the hydro projects. Indeed, in examining the relocation programs that were implemented in both communities, Waldram argues that the promise of development was "little more than an old treaty promise." Although the author does detail the new housing, improved television broadcasts and the direct dial telephone service available in the new

communities, the social distress, the economic uncertainty and the general upheaval paints a rather gloomy scenario.

**Walker, H.W.** "Canadian Characteristic: A Look at the Progress, Future of Company Towns." *Financial Post* 49 (15 October 1955).

One of two papers published by the co-ordinator of the Queen's University study, *Single Enterprise Communities*, this essay summarizes many of the larger work's findings. It does, however, discuss what it describes as the "chief" characteristics of Canadian single industry communities. In this fashion company-owned housing or quality educational facilities, or even widely developed recreational services, are all featured as important aspects of community development. Walker also provides one of the best analogies of the single industry community phenomenon. When he claims that the company's position often resembles "the domination of a feudal estate by the lord of the manor."

**Walker, H.W.** "Canadian New Towns." *Community Planning Review* 4 (1954).

A good, concise summary of the findings of the Queen's University study, *Single Enterprise Communities*, Walker not only discusses the general characteristics of the single industry town but also describes what he terms as "Other Recent Trends" in community development. In this regard and with a view to the future of single industry communities he calls for the greater co-operation of government and industry in the creation of "multi-enterprise" communities.

**Walker, J.A.** "Company Towns." *Journal of the Town Planning Industries* VI (April 1927).

Writing in 1927, Walker prefaces his study with the assertion that a "Congenial environment not only keeps the labour turnover at a minimum, but maintains labour's producing power at the maximum." Emphasizing the role of the industrial company in the provision of community facilities Walker

discusses elements of planning, housing finance and type, as well as the "social aspects" of community. The detailed nature of the study is well described by Walker's discussion of housing segregation. Based on the division of race and class, the author notes that segregation "is not only desirable but is necessary."

**Walker, J.A.** "Planning of Company Towns in Canada." *The Canadian Engineer* 53, 3 (1927).

In a paper that was originally presented at the annual convention of the Town Planning Institute of Canada, Walker discusses what he cites as "one of the most difficult and insistent problems confronting industrial leaders" -- the company town. In claiming that the "company which offers good housing and desirable living conditions is the one which holds the best labour," the author chronicles the positive aspects of a company dominated town. Referring specifically to company towns in British Columbia, Walker notes the necessity of pre-planning, the provision of transportation services and even the "judicious planting of trees."

**Wallace, Iain.** *The Transportation Impact of the Canadian Mining Industry*. Kingston: Centre for Resource Studies, Queen's University, 1977.

Wallace clearly describes the integral relationship that exists between the mining industry and transportation services. He maintains that mineral development is often a byproduct of transportation policies. This is particularly true in terms of railway development. In a contemporary sense, for example, the author suggests that the development of dormitory communities to service the mining industry is based on accessibility as dictated by transportation policies.

**Walsh, A.R.** "Mine Development in the High Arctic." *The Canadian Mining and Metallurgical Bulletin* 68, 761 (September 1975).

Walsh, Project Engineer for the mining contracting and consulting firm of J.S. Redpath Ltd., offers an overview of the company's experience in the High Arctic, Ungava and Greenland. Referring specifi-

cally to projects such as Strathcona Sound, or the Polaris Project, the author details a variety of Arctic planning "prerequisites." Citing problems such as labour turnover, permafrost construction, delivery constraints or the lack of storage facilities, Walsh documents several tested, Arctic development techniques. Ranging from the use of calcium chloride for drill water to the employment of indigenous peoples, Walsh covers a wide cross-section of northern development topics.

**White, R.** *The Political Theory of the Shelter Allowance Concept: Aspects of the Debate in Canada.* Ottawa: Canada Mortgage and Housing Corporation, 1981.

In suggesting that the principle tenet of the shelter allowance program is a "comprehensive social housing policy," White discusses the theoretical underpinnings of the subsidy program. Arguing that the income supplement scheme now forms the basis of a "one-stop" social housing program, the author calls for a re-evaluation of the housing subsidy process. White concludes with the recommendation that government housing subsidies should not be made available to middle and upper income groups, and that funds should specifically be directed at lower income groups.

**Williamson, R.G.** "The Keewatin Settlements." *Musk-Ox* 8 (1971).

Williamson, one-time Head of the Arctic Research and Training Centre at Rankin Inlet, describes in this study of the District of Keewatin, the major settlements of central Northwest Territories. Although the author provides some detail on topics as varied as dietary change or government services, the major portion of the paper discusses settlement profiles. In this fashion Williamson describes the communities of Chesterfield Inlet, Baker Lake, Repulse Bay, Eskimo Point, Rankin Inlet and Whale Cove. While the author's interpretation is mostly descriptive, it does provide a much needed perspective to the sense of community.

**Williamson, R.G. and T.W. Foster.** *Eskimo Relocation in Canada.* Saskatoon: Institute for Northern Studies, University of Saskatchewan, 1976.

Cited as the Keewatin Relocation Study, this report isolates the "problems associated with past relocations" and attempts to analyze them in detail. Describing previous Eskimo relocation programs as "far from satisfactory," the study further recommends a number of solutions to the various problems inherent in moving a population from "small northern settlements to centres of wage employment." With particular reference to the Lynn Lake relocation program, the authors clearly depict the provision and maintenance of housing as a major source of consternation. A partial solution which was implemented in 1972, included the provision of a counsellor who assisted in the life-skills training process and thereby helped to buffer the cultural transition.

**Wiseman, Nelson.** "Planning for Remote Communities: A Case Study of Housing Need Assessment." *Canadian Public Policy* VIII, 2 (1982).

Wiseman, author of The Manitoba Remote Housing Survey for the Manitoba Housing and Renewal Corporation, in this paper summarizes the larger study and concludes that housing need assessment is a function of the local community. In an effort to emphasize the importance of local input, Wiseman details the southern bias generally evident in the need assessment process. Indeed, the author maintains that "arbitrary and unreliable methods of data generation are common in the Northern planning" program. Most often ignored because of the southern bias, is northern mobility, which is a pronounced characteristic in northern settlement.

**Wojciechowski, M. ed.** *Mining Communities: Hard Lessons for the Future.* Proceedings of the Twelfth Centre for Resource Studies Seminar. Kingston: Queen's University, September, 1983.

Following the recommendations of the Report of the Federal Government Task Force on Mining communities, the Centre for Resource Studies coordinated the seminar from which this publication evolved. Intended originally as a discussion of the mine shutdown problem, the study focuses on the wider issues of the single industry town phenomenon. Included is a discussion of housing, union

responsibility and settlement options. The major recommendation emanating from the seminar concerned the creation of a "National Mining Community Reserve."

**Wolfe, J. and S. Lindley**, "Comprehensive Community Planning with Canada's First Nations: Observations on Theory, Policy and Practise," A paper presented to the 6th Annual Geography Conference, Toronto, 1983.

This paper, which is based on the activity of the Rural Development Outreach Project and the University School of Rural Planning and Development at the University of Guelph, is an overview of the "Comprehensive Community Planning" initiative as implemented by DIAND in 1980. Taking into account the social, economic, cultural and physical aspects of community planning, the comprehensive strategy is a co-operative planning tool. With specific reference to Muskrat Dam, Ontario, the authors offer a detailed account of the process of program implementation. Co-ordinating all aspects of community development, the Muskrat Dam initiative involved the total community in the articulation of community goals and the establishment of development schedules.

**Woychuk, J.** "Imperial Oil's Fertilizer Complex at Redwater and Its Impact on Urban Growth." *The Albertan Geographic* 7 (1971).

Woychuk provides a careful analysis of the fertilizer industry in Northern Alberta and its impact on community growth. Referring specifically to the two towns of Redwater and Fort Saskatchewan, the author discusses the relative importance of the industrial project to each community. Concluding that industrial growth occurred primarily in the one community while residential development occurred mostly in the other, Woychuk describes an intriguing example of the dormitory community phenomenon.

## Y

**Yates, A.B.** "Housing Programs for Eskimos in Northern Canada." *The Polar Record* 15 (January 1970).

Tracing the history of the federal government's Eskimo housing initiative from 1956 through until 1969, Yates provides a descriptive overview of northern housing policy. Adopted as a response to the "grave social and public health" problems associated with inadequate or substandard housing, the federal government's housing policy was based on a trial and error system of housing programs. Beginning with what Yates describes as a "small rigid frame house," in 1956 the government's initiative evolved to a point where in 1965 through the Northern Rental Housing Program and based on geared to income rental rates, the Eskimo population had access to "three-bedroom houses with floor space of 70 square meters."

**Yates, A.B.** "Nanisivik -- The Place Where Things Are Found -- An Example of Government Industry Co-operation in the Far North." *The Canadian Mining and Metallurgical Bulletin* 68 (October 1975).

Yates, Director of the federal government's Northern Policy and Program Planning Branch, offers valuable insight into the Strathcona Sound development project. In suggesting that the project is a unique example of government industry co-operation, Yates underscores the central place of government programming in northern development. After extensive investigation the federal government concluded that "infrastructure assistance was warranted" and entered into a series of agreements with Mineral Resources International Inc. to develop the lead-zinc mine and community infrastructure.

## Z

**Zrudlo, L.R.** "The Design of New Housing Types with and for the Inuit of Arctic Quebec." *Inter-Nord* 17 (1985).

In suggesting that over a "relatively short period of time, the evolution in Inuit housing has been phenomenal," Zrudlo traces the transition from the tradition of the self-built house to the more contemporary five-bedroom dwelling. Measuring the impact of southern culture in terms of the "compartmentalism" of housing, the author clearly underscores the complexity of the post-1950 lifestyle changes encountered by the Inuit population. At the same Zrudlo provides a description of some of the more contemporary design innovations incorporated in the Inuit communities. Of particular note has been the activity of the Société d'Habitation de Québec, the Inuit Association of Canada and most pointedly, the Université de Laval School of Architecture, in meeting the needs of the Inuit peoples.

Zrudlo, L.R. "The Environmental Design Implications of Arctic Man's Psychological Problems," Master's of Architecture, Laval University, 1971.

Although this thesis was intended to address the psychological problems of Arctic living, the author provides an intriguing overview of northern housing form and community design. Discussing the importance of maximum sun exposure, minimum snow deposition and the utilization of wind-breaks, Zrudlo articulates what has come to be recognized as a model for the livable winter city. In terms of housing, the author promotes the use of the "omnibuilding" as the dominant form of dwelling-living space. Maintaining further that the "megastructure" offers an economical method of heating, a comfortable multipurpose environment for the pursuit of a wide variety of indoor activities and a shelter for outdoor activities, a flexibility in construction and a form to the northern community, Zrudlo clearly promotes the compactness of northern settlement.

Zrudlo, L.R. "A Model for an Integrated Design Approach to Settlement Planning in the Arctic." Ph.D. thesis, Edinburgh University, 1982.

As a response to a "general attitude of drawing on southern examples for the planning of northern or Arctic settlements," Zrudlo purposes a "new" approach to the design of northern towns.

Described as an "integrated design approach," the author's innovative scheme is based on a four tiered planning schedule. Level one considers geological and hydrological requirements; level two, service infrastructure; level three, climate, and; level four, cultural requirements. The major component of the plan, however, is what the author describes as "user participation."

Zrudlo, L.R. *Psychological Problems and Environmental Design in the North*. Quebec: University of Laval, 1972.

This report, which attempts to establish the "relationship" between the "geographic conditions" of the North and "the psychological problems of the immigrant population," is a detailed study of climate oriented design techniques. In providing for the "ideal northern settlement," Zrudlo considers factors of isolation, remoteness, solar radiation, temperature and snow. Reacting to the severity of the northern environment, the author recommends the division of community residences into four zones: an omnibuilding; residences linked to the omnibuilding; row-houses and; detached houses. The specific design innovations encouraged by Zrudlo include "dechilling chamber(s)," sliding shutters and bubble windows.

Zrudlo, L.R. "User-Designed Housing for the Inuit of Arctic Quebec." *The Northern Engineer* 7 (1975).

Focusing on the community of Povungnituk, Quebec, this study documents the unique efforts of the Inuksiitiit research team to develop a distinctly Inuit house type. Arguing that the traditional houses erected for the Inuit population were "oblivious to the cultural and functional needs of the Inuit," the project was intended to measure Inuit housing needs and "translate them into spatial arrangements in the design of houses." Of particular note in this regard was the "pulaarvik," with increased storage facilities and generally more living space. Eventually giving rise to a three level "theoretical house prototype," the final product was deemed to be an acceptable alternative to the typical northern abode.