

QUALITY OF LIFE IN A NORTHERN CITY:  
A SOCIAL GEOGRAPHY OF YELLOWKNIFE, N.W.T.

by

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## ABSTRACT

If urbanization in the North is to emerge beyond the "instant town" or the "frontier town" models, an integrated understanding of what constitutes quality of life in northern settlements is required. In less than ten years Yellowknife has been transformed from a frontier mining town with an uncertain future to a small city whose permanency is not only assured, but which is experiencing rapid population growth and economic diversification. This transformation was spurred by the naming of Yellowknife as the territorial capital, and compounded by developments in global markets for gold and petroleum.

To gain this integrated understanding of quality of life, Yellowknife's disparate social groups and social areas are analyzed. Discrete neighbourhoods are identified by examining housing types and compiling occupational data and house assessments. Less tangible notions of social space, as defined by perceived neighbourhood, social contacts, and place awareness patterns suggest that the town is differentiated cognitively by most residents on the basis of proximity and social networks of internally homogeneous groups.

The assessment of quality of life in the city is initially approached deductively through the use of comparative urban indicators, including employment turnover, public order, poverty, income, and cost of living. These statistics however tend to be misleading of variables salient at the level of experience, and problems of data availability, reliability, and geographic scale of presentation may result in erroneous conclusions.

An inductive analysis based on an evaluation by residents themselves of their community and neighbourhood, and the criteria used in their assessment is more useful in the identification of quality of life. Survey data was collected from a representative sample of 221 Yellowknife households. A major finding shows that most Yellowknife residents are satisfied with their community. Sets of positive and negative liveability criteria emerge that do not always coincide with those suggested by the urban indicators. Housing, the high cost of northern living, and southern accessibility were perceived as greatest hindrances to community satisfaction; in contrast, residents enjoy the city's setting, pace of life, and the people themselves. Overall satisfaction with their neighbourhood is generally lower for residents and consistently variable among residential areas. Important neighbourhood quality criteria include privacy and views; accessibility factors and newness warranted scant mention by most. Successful neighbourhoods reflect a close correspondance between the residents' perception of the area's existing physical and social amenities and those considered to be ideal. Even in a town as small as Yellowknife, different social groups have varying perceptions of what constitutes an ideal neighbourhood.

The observation and interpretation of everyday incidents and experiences in Yellowknife permit a third approach to evaluating quality of life. Several typical scenarios suggest the existence of a degree of cosmopolitanism within the pioneer tradition of the independent, self-made man. The city offers its people the residential and cultural diversity of older, larger cities; as such Yellowknife might be viewed as a model for other northern communities.

Residents' planning needs, as expressed through attitudes and

liveability components, vary internally within the city. Many needs--housing, improved transport links with the South for goods and people, and improved recreation facilities--can be incorporated into future plans, which at the same time should preserve those environmental components presently highly valued. Proposals are discussed that may help solve the problems of housing shortages, the cost, choice, and tenure of mobile home spaces, and changes in the physical and social structure of two neighbourhoods. While high financial outlays by governments may be required to improve quality of life in the North, they should be considered as investments in present and future well-being, without which the social and economic costs may be even higher in the long run.

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## CHAPTER I

### INTRODUCTION

The projected doubling of the population in Canada's major metropolitan areas by the year 2000 has created a host of research questions concerning the quality of urban life through this period of rapid expansion. Implicit in the strategy of many researchers, planners, and politicians is that some of this uncontrolled growth can be directed away from the major cities into the smaller urban settlements in the hinterland. If this approach is to succeed, it is necessary to provide for the maintenance and enhancement of quality of life in such settlements.

The city of Yellowknife is a present-day microcosm of what northern urban life may eventually become. Located on the north shore of Great Slave Lake six hundred miles by air and one thousand miles by road north of Edmonton, the community is experiencing rapid growth stemming from the influx of government and resource exploitation personnel. Across the North, settlements are being created, while some are being relocated. Others are currently expanding or anticipating expansion. The applied value of contemporary studies of quality of life in the urban environment of northern towns is self-evident if the region is to emerge beyond the point of transient, frontier-style settlement to a stage of urbanism that is more stable and satisfactory to most residents.

In March, 1972, a comprehensive document outlining Canada's objectives, priorities, and guidelines for its two northern territories was

tabled by the Minister of Indian Affairs and Northern Development. The first of seven objectives reads:

To provide for a higher standard of living, quality of life, and equality of opportunity for northern residents by methods which are compatible with their own preferences and aspirations.<sup>1</sup>

Recent studies suggest that quality of life in northern communities, as indicated by residential aspirations, is seriously deficient. A project sponsored by the Northwest Territories Division of the Canadian Mental Health Association found that almost half of the residents of seventeen northern settlements wished to move away from their present community.<sup>2</sup> The strong preference for all groups was to a larger centre in the North, or a southern city:

This high degree of desire to move suggests a serious dissatisfaction with local circumstances. . . . If these data reflect true feelings, then the plight of northerners of all races is not particularly satisfactory. Despite an unquestioned enthusiasm for the North . . . it would seem that a substantial number of northern residents want the same facilities, conveniences, services, and communications that are taken for granted as life essentials in the south.<sup>3</sup>

Similar findings appear in a study of occupational and locational aspirations of high school students in the Northwest Territories.<sup>4</sup> Both white and native students have metropolitan aspirations, consistently indicating a preference to live first in southern Canadian cities, second in the larger northern urban centres, third in small northern settlements, and lastly on the land.

A review of northern community planning literature supports residents' contentions that the urban environments of northern settlements are unsatisfactory.<sup>5</sup> Several authors criticize northern communities as not serving the needs of their residents, instead being constructed on the basis of cost efficiency by engineers, planners, and architects with

little or no northern experience. An editorial appearing in the Canadian Architect in 1956 is still applicable: "To date, with few exceptions, government agencies and private companies have shown little, if any, enterprise in studying the subarctic community and individual at any level of social creativity."<sup>6</sup> Yet it is interesting to note what alternate planning approaches have been proposed. One planner recommended that new towns in northern Quebec be divided into neighbourhoods of 1,000 people each, at densities of at least forty persons per acre. His reason for these moderately high densities is that, in the cold winter months, residents must be as close as possible to stores and schools.<sup>7</sup> Perhaps the most imaginative town plan in Canada was proposed by the Department of Public Works for Frobisher Bay, N.W.T.<sup>8</sup> The community would consist of three dozen high-rise apartments encircling a town centre to be covered by a geodesic dome!

Some immediate questions arise. Are northern Quebec families willing to trade off a detached house for better access to schools in winter? Will Inuit residents (who constitute over half of Frobisher Bay's population) flock to high-rises because some planners in Ottawa perceive the North as being too cold for them? Moreover, where would they keep their sled dogs and snowmobiles? These may be outdated examples, but they do reveal the simplified assumptions employed concerning quality of life in the community. The point is that planners who lack an integrated understanding of the existential character of a northern urban area are not qualified to plan its physical form.

To gain this integrated understanding of life in Yellowknife, a diversity of methodologies is required. An improvement in the quality of life implies a progressive change continuously directed toward a certain

end condition. For this, the present state must be comprehensively described, the end condition specified, and the processes by which the final condition can be attained must be outlined. Succeeding chapters attempt to do this for Yellowknife: the present conditions are revealed by tracing the evolution of the city and through a description of Yellowknife's urban morphology and urban social space. Subsequently, notions of present and ideal quality of life in the community are derived, first, as deduced from formal social statistics, second, as perceived by Yellowknife residents, and third, by observing scenes and events in the community and attempting to interpret their meaning. Implications for community planning in Yellowknife are then discussed on the basis of these results. Due consideration is given to the city's discrete residential groups, whose varying socio-economic, demographic, attitudinal, and lifestyle characteristics lead to differing perceptions of quality of life. Every attempt is made to present results in terms that are relevant to the situation in Yellowknife, and that can be comprehended by the people themselves.

Footnotes

<sup>1</sup>Joint Brief of the City Councils of Whitehorse and Yellowknife, May 30, 1973, p. 2, quoting Hon. Jean Chretien, Minister of Indian Affairs and Northern Development.

<sup>2</sup>Northwest Territories Division, Canadian Mental Health Association, Project Mental Health: A Study of Opinion North of 60 (Saskatoon: Marcotte Research Centre, 1973), p. 18.

<sup>3</sup>Ibid., pp. 19-20.

<sup>4</sup>Derek G. Smith, "Occupational Preferences of Northern Students," (Unpublished Paper in Mimeograph, Department of Anthropology, Carleton University, 1973).

<sup>5</sup>See, for example, Richard Erskine, "Town Planning in the Swedish Sub-Arctic," Habitat 6 (1960): 2-6; George Jacobsen, "The Northern Urban Scene," Canada's Changing North, ed. William C. Wonders (Toronto: McClelland and Stewart, 1971), pp. 291-96; James R. Lotz, Northern Realities (Toronto: New Press, 1970), pp. 30-32; Abe Okpik, "Bewildered Hunters in the Twentieth Century," Canada's Changing North, ed. William C. Wonders (Toronto: McClelland and Stewart, 1971), p. 297; Norman Pearson, "Elliot Lake: Experiment in Conformity," Town and Country Planning 27 (January 1959): 199-203.

<sup>6</sup>The Canadian Architect 1 (November 1956): 58.

<sup>7</sup>Claude Langois, "Nos Villes Minières: Un Echèc?," Community Planning Review 7 (March 1957): 52-63.

<sup>8</sup>"Frobisher Bay, N.W.T.: Federal Government Project for a New Town," The Canadian Architect 3 (November 1958): 44-49.

## CHAPTER II

### MINING CAMP TO PERMANENT SETTLEMENT

1934 -1975

The key problem to northern settlement development in Canada is often asserted to be related to the permanency of these settlements.<sup>1</sup>

Camsell recognized this when, in 1939, he wrote:

All mines ultimately become exhausted, and with limited forest resources and an absence of agricultural possibilities, on what continuing resources can the life of the people be based when the mines are worked out? This is the question that faces us in the case of all mining fields in the Far North.<sup>2</sup>

It was not until 1967 that Yellowknife's permanent existence was assured; indeed, writing in 1963, L. S. Bourne expressed optimism that the town "will exist for at least ten and possibly fifteen years."<sup>3</sup> At that time, it appeared that the gold ore reserves, upon which the basic sector of the local economy was almost entirely dependent, would be exhausted within a few years, perhaps leading to eventual settlement abandonment. But instead, Yellowknife's population has more than doubled in the decade following 1963. The events which have anticipated the creation of Yellowknife as a permanent "city" will be traced in this chapter.

#### 1934-45: Boom and Bust

"Yellowknife" first appeared in the journal of Samuel Hearne in 1771. Exploring the area between Great Slave Lake and the Arctic Ocean for the Hudson's Bay Company, he applied the name to the Indians he encountered, distinguishing them by their use of implements made from

copper. The next major group of Europeans to pass through the region were prospectors on their way to the Yukon goldfields in the late 1890's; samples taken from the shores of Yellowknife Bay contained significant levels of gold and silver. But the lure of the Klondike, and a consequent lack of both prospectors and prospects in the area, delayed staking until the Geological Survey of Canada published findings of a mapping project in 1933.<sup>4</sup> Interest in the Yellowknife district was compounded when, in 1934, the price of gold was raised by the United States government to \$35.00 an ounce from the previous level of \$20.67. Gold-bearing quartz was discovered in 1935, and within a week the ground that later became the Consolidated Mining and Smelting Company's gold mine was staked.<sup>5</sup> Three years later, the first gold brick was poured. Seven gold-producing mines were in operation by 1941, all but three being situated between ten and fifty miles from the settlement.<sup>6</sup> But prosperity was short-lived as World War Two brought a shortage of labour and supplies: all gold mining operations were suspended by 1944.<sup>7</sup>

This initial phase of discovery, boom, and wartime recession had obvious effects on the settlement. Two somewhat specialized urban nodes emerged, the first on a peninsula jutting into Yellowknife Bay, and the second on the Con\* property two miles to the south. Con had erected permanent buildings by 1937, including bunkhouses for its employees, and an eighteen-bed hospital which served the whole region. On the rock peninsula, shacks and tents appeared along the waterfront to permit access by barge and float plane. In September, 1937, there were 100 people on the peninsula; 400 more arrived within the following twelve months. By that

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\*Throughout this paper the term "Con" represents the Consolidated Mining and Smelting Company's mine operation, and/or the residential area surrounding it.

time Con employed 200 men, and the district population was approaching 1,000.

By the end of the decade, Yellowknife had acquired the range of small town services: general stores, bakeries, laundries, cafes, a barber shop, drug store, shoe repair shop, and bank. It was also a frontier community with a heavy preponderance of single males, and "Glamour Alley," a row of cabins in Willow Flats, provided an additional viable, if not legal, service, at one point employing fourteen women. A serious attempt to introduce a legalized bordello failed.<sup>9</sup> The liquor store, opened in 1939, was perhaps the most lucrative enterprise in the community, showing a profit of \$4,000 in its first month of operation.<sup>10</sup> Gambling halls and a beer parlour followed in 1940. But these amenities did not halt the flow of people out of Yellowknife. During the war, many residents left to work on the Canol pipeline and road project that was constructed to supply oil for the North Pacific battle zone. Others travelled to the Eldorado mine on Great Bear Lake after its reopening in April 1942, to extract uranium--destined eventually for the first atomic bomb. Wartime conditions in the settlement were not bad; it "was a quietly pleasant place to be."<sup>11</sup>

#### 1945-67: A Town Dependent on Gold

During this period the historical development of Yellowknife reflected more the history of a fluctuating gold mining industry than the steady growth of a settlement. As the war ended, a second staking rush took place and Giant Yellowknife Gold Mines Limited, formed in 1937, began milling operations in May 1948.<sup>12</sup> As at Con, Giant constructed a self-contained residential area near its shafts, across the Back Bay from the Old Town peninsula. Meanwhile, Con had resumed production in 1946. But

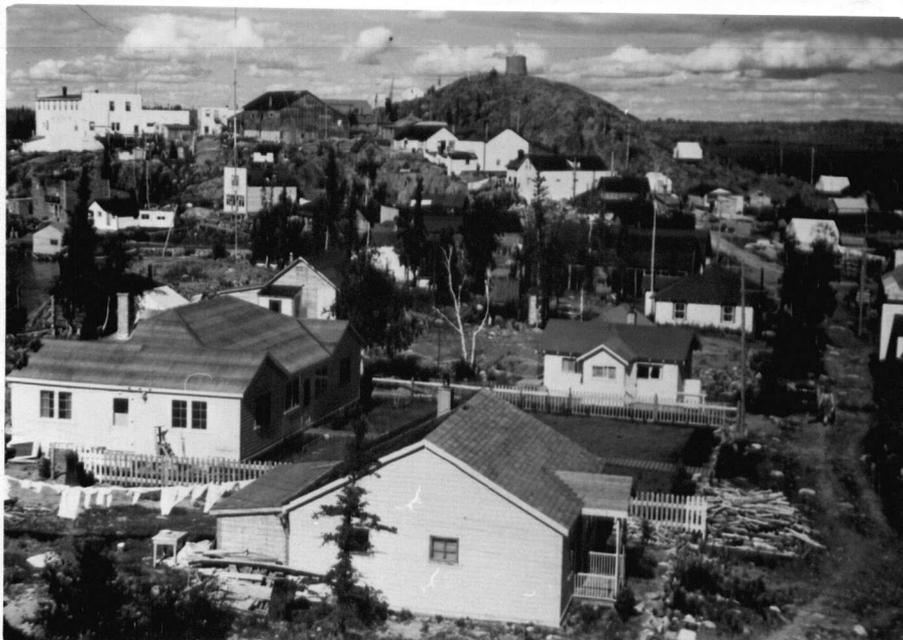
again, the mining boom tapered off towards the end of the decade.<sup>13</sup> By 1952, ore recovery at the numerous small mines in the region had become economically unfeasible at the current gold price level; only Con, Giant, and Discovery remained as gold producers. Con employed about 320 men,<sup>14</sup> a number which has slowly decreased to a 1974 level fluctuating around 200.<sup>15</sup> As early as 1951, Con Mines was estimating its reserves would last for only a few years longer.<sup>16</sup> Giant Yellowknife employees numbered 275 in 1950, a figure that has increased over the past twenty-five years to 400.<sup>17</sup> The Discovery mine, located ~~sixty~~ <sup>sixty</sup> miles northeast of the community, employed 80 men until production ceased in 1969.<sup>18</sup> (Photograph 2.1).

The post-war boom led to the construction of a "new town," one mile inland from the original settlement. Federal officials anticipated a population of 5,000 by 1950,<sup>19</sup> and there was very little land left in the Old Town to handle the expected influx of new residents. Also, the lack of piped water and sewer lines caused serious health problems. Yellowknife in 1946 was described as a "sprawling collection of villages"<sup>20</sup> spread over five separate locations: the Old Town on the mainland rock outcrop with two satellites, Latham Island and Joliffe Island, and the two mine residential areas on either side of Old Town, five miles apart. (See Figure 2.1, Photographs 2.2 and 2.3).

To bring order to this disarray, the federal government planned and constructed a central new town, based on a rectangular grid pattern. "Only through the opening of a new townsite did the government prevent squalid conditions from spreading over the whole area around the rocky peninsula, and the gradual dispersal of people and business to the various mining camps."<sup>21</sup> Some local opposition did exist however, stemming largely from what was (and still is) considered to be too much federal government

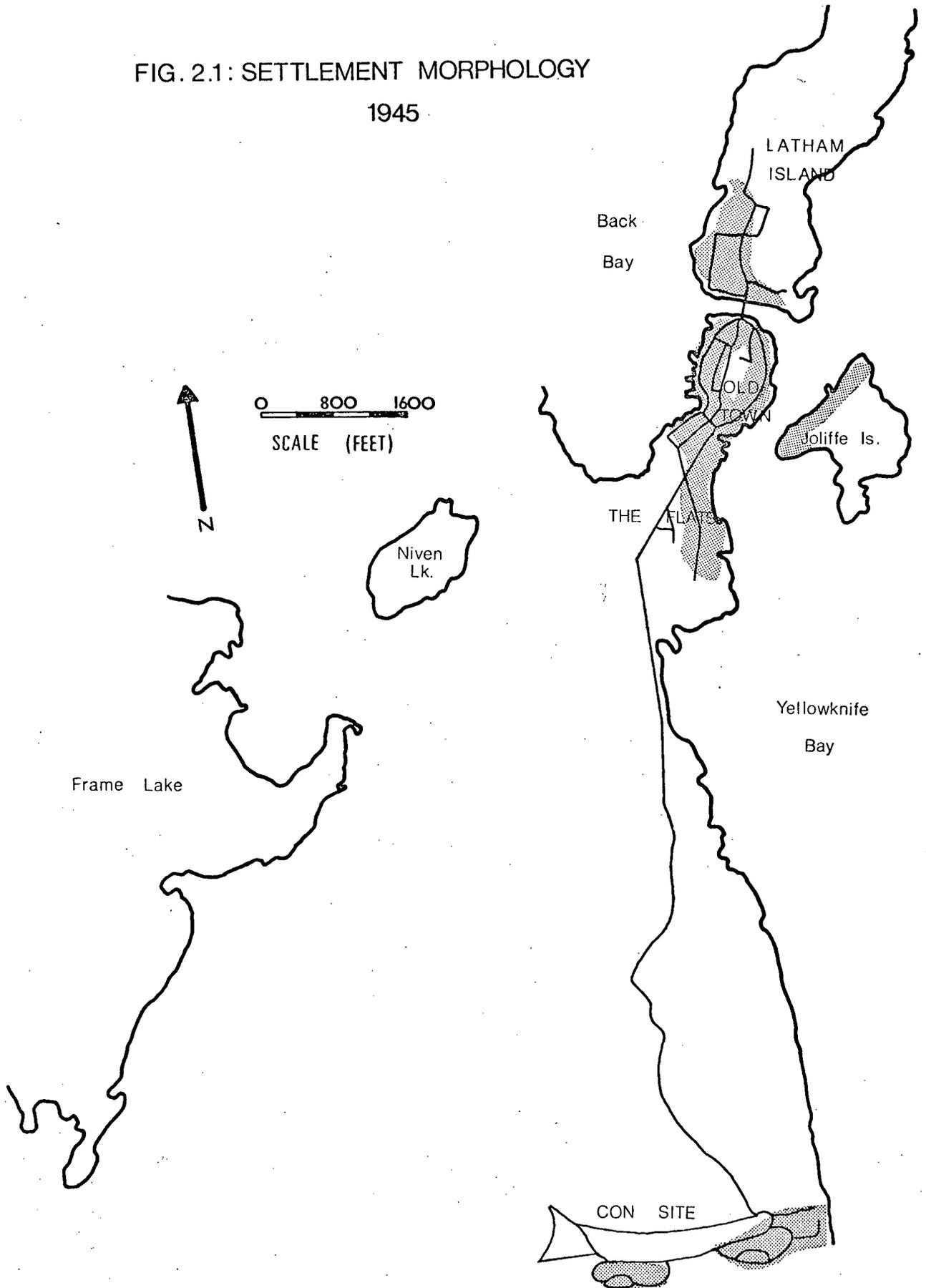


Photograph 2.1: View of Yellowknife Bay in late 1940's, showing Giant Mines in foreground, the Old Town-Latham Island townsite, and the Con minesite faintly visible in the upper right corner. The West Bay Fault is clearly shown. (Courtesy of Dr. J.L. Robinson)



Photograph 2.2: The Old Town during the post-war boom, looking north. Few of these buildings are still standing. (Courtesy Dr. J.L. Robinson)

FIG. 2.1: SETTLEMENT MORPHOLOGY  
1945





Photograph 2.3: Southern Old Town and Willow Flats in the late 1940's. New Townsite development is evident in upper right corner. (Courtesy of Dr. J.L. Robinson)

interference in community affairs, without consultation of the local population. There also appeared to be a dislike of a planned model town: "being pioneers, they enjoyed the unorganized higgledy-piggledy collection of warehouses, cafes, shacks, outhouses, and what-not that made the early Yellowknife."<sup>22</sup> Nevertheless, "Blunderville" was built, and by 1947 fifty residences were occupied and construction was underway on a hospital, school, hotel, theatre, government buildings, and stores. Only the native Indian population and some "old-timers," together with those functions using the waterfront location, remained in the Old Town. But the projected 1950 population of 5,000 people never materialized; the 1951 population of 2,724 increased to 3,245 by 1961, and 3,787 in 1964. (Figures 2.2 and 2.3.) Growth in the 1950s was attributable mainly to the emergence of the federal government as a component in Yellowknife's economic base, while the small increase in the early 1960s was due in part to the completion of an all-weather road to the South in 1960. Perhaps as important as its role in making Yellowknife a road terminus for freight destined for points further north and in substantially reducing costs of all economic activities, the highway contributed to a feeling of settlement permanency.

#### 1967-75: Growth and Diversification

By the mid-1960s, the increased federal presence in the North suggested that, even when the mines did eventually close, Yellowknife would not be totally abandoned. But since 1967, three unrelated events have occurred that have led to an entirely unanticipated degree of expansion. Yellowknife's permanency has not only been ensured, but its economic base has diversified and the population has rapidly increased.

On January 17, 1967, Yellowknife was named as capital of the restruc-

FIG. 2.2: SETTLEMENT MORPHOLOGY  
1951

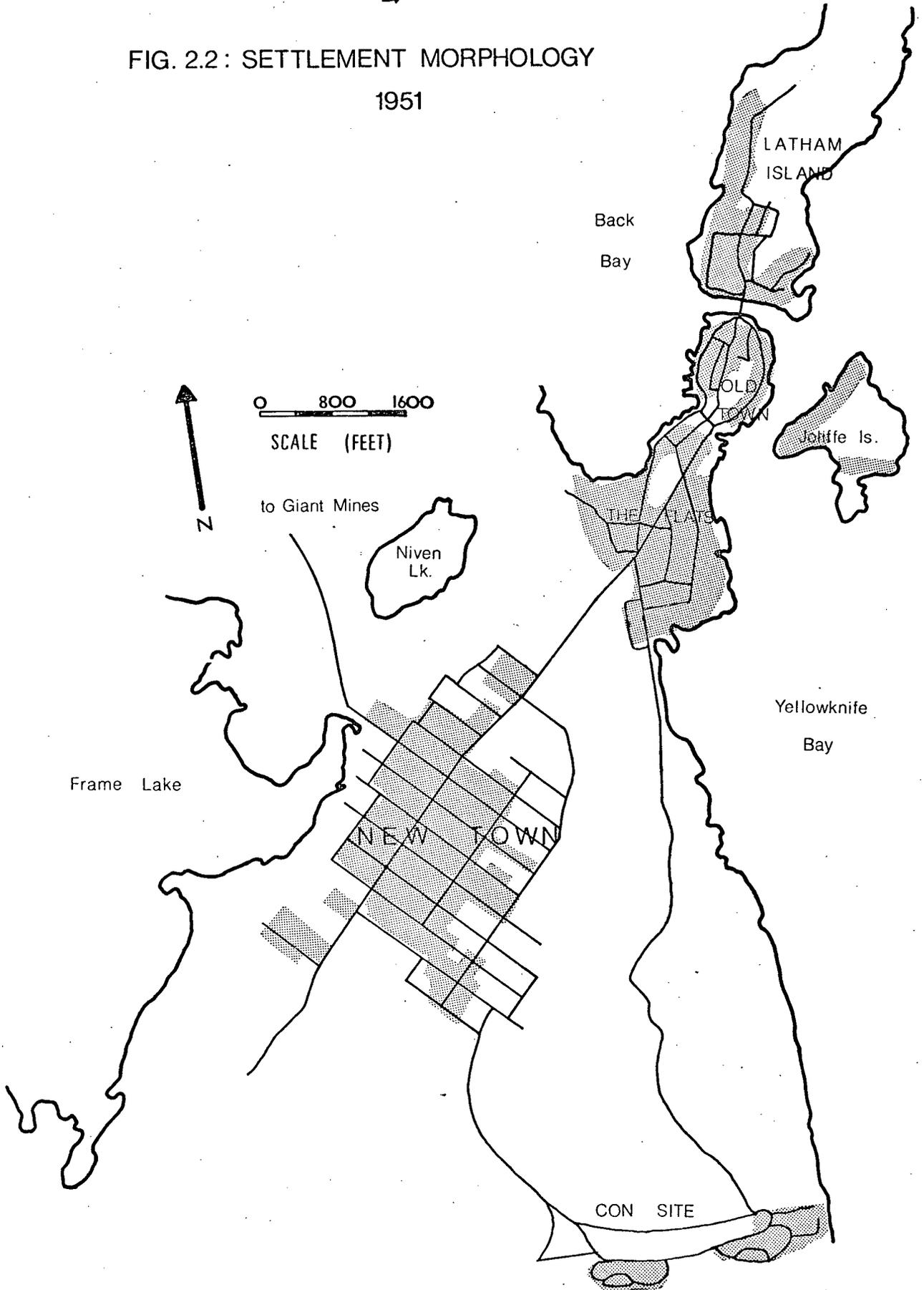
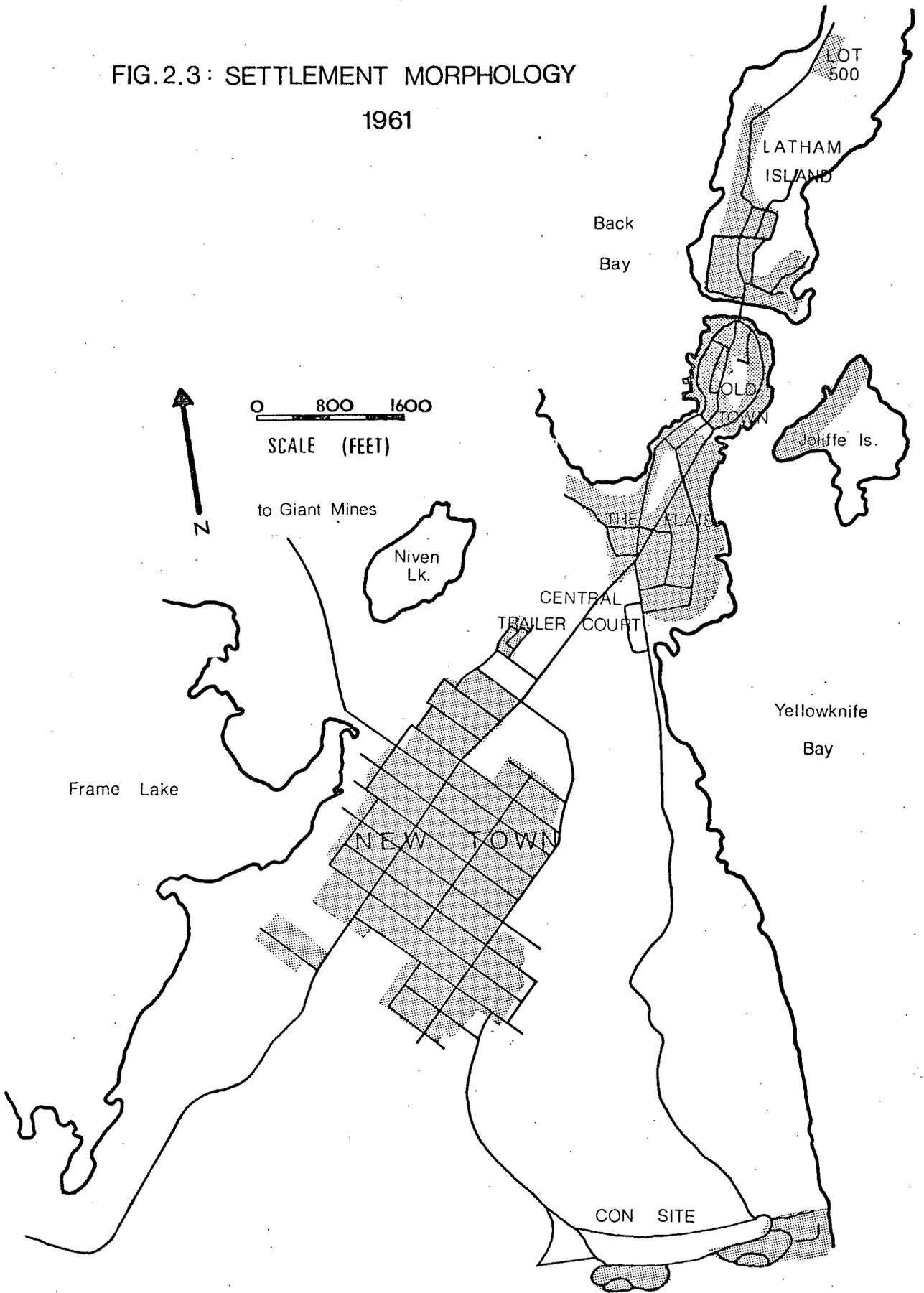


FIG. 2.3: SETTLEMENT MORPHOLOGY  
1961



tured Government of the Northwest Territories. Of the three contenders (Yellowknife, Hay River, and Fort Smith), Yellowknife was selected because "its physical characteristics are the most conducive to an identification by all residents of the North as the location of their capital."<sup>23</sup> The initial territorial government staff of 36 expanded to 2,700 by 1974,<sup>24</sup> of which 700 are located in Yellowknife.<sup>25</sup>

The effects of oil and gas exploration in the Mackenzie Delta and Arctic Islands have spread to Yellowknife. Mining service companies, consulting firms, and other support industries have located there. The increased awareness of northern natural resource potential has led to a greater number of federal government personnel in Yellowknife. Regional Offices of the Departments of Indian Affairs and Northern Development; Energy, Mines and Resources; Manpower and Immigration; National Defence; Health and Welfare; Public Works; Environment; and the Ministry of Transport have been created or expanded.

Since gold has been allowed to float on the free market since 1971, the price has more than quadrupled from \$38.00 an ounce to a value in March 1975 of \$180.00. Although both operating mines continue to claim that closure is imminent,<sup>26</sup> both are embarking on major expansion programs. Con is investing twelve million dollars in a new shaft that "may well see this veteran gold producer vying for the top position in this country",<sup>27</sup> and Giant Mines is commencing open pit operations in addition to its underground workings.

So, for the third time, "Yellowknife is booming again. Houses are being trucked in, bolted together, and serviced so rapidly that the town is becoming unrecognizable."<sup>28</sup> Symbolically, the sixty-foot mine head-frames have been overshadowed by three government high-rise offices, a

luxury hotel, and a twelve-storey apartment building. Three new subdivisions and two trailer courts have been constructed to help accommodate the 5,000 people that have arrived since 1967. (Figure 2.4) The value of building permits issued reflects this new construction (see Table 2.1), the largest relative increase taking place in 1967, when a rise of 161% in the value of new construction was registered over the previous year. Even after discounting inflation effects on permit values, the development upswell of the late 1960s and early 1970s is clearly highlighted.

TABLE 2.1  
TOTAL VALUE OF BUILDING PERMITS ISSUED

Year	Total Permit Value	Change From Previous Year
1963	\$ 925,209	. . . . .
1964	1,380,448	+ 49%
1965	2,857,024	+107
1966	1,674,402	- 71
1967	4,370,681	+161
1968	5,432,132	+ 24
1969	5,601,211	+ 3
1970	4,438,173	- 26
1971	7,552,756	+ 70
1972	8,923,973	+ 18
1973	9,098,893	+ 2
1974	13,055,574	+ 43

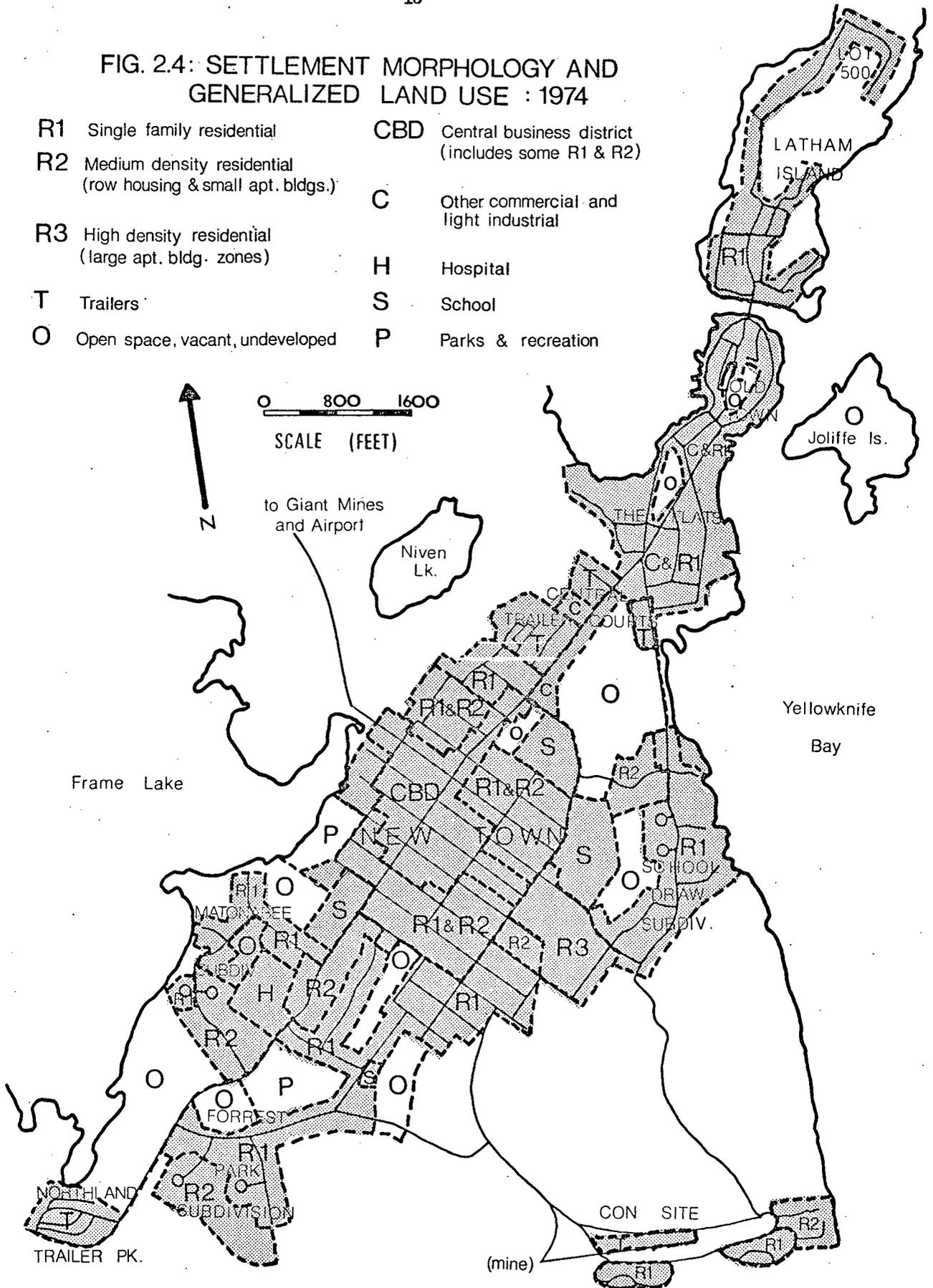
SOURCE: Office of the City Inspector, City of Yellowknife.

### Social and Economic Diversification

Yellowknife's population growth is impossible to trace with total accuracy. The most recent census, conducted by the city in August 1974, documented 8,100 residents, but, according to the census registrar, the full total approaches 8,600.<sup>29</sup> Possible sources of error present in any

FIG. 2.4: SETTLEMENT MORPHOLOGY AND GENERALIZED LAND USE : 1974

- |    |  |     |   |
|----|--|-----|---|
| R1 | Single family residential                                    | CBD | Central business district (includes some R1 & R2) |
| R2 | Medium density residential (row housing & small apt. bldgs.) | C   | Other commercial and light industrial             |
| R3 | High density residential (large apt. bldg. zones)            | H   | Hospital  |
| T  | Trailers   | S   | School  |
| O  | Open space, vacant, undeveloped                              | P   | Parks & recreation                                |



census are compounded in Yellowknife by the marked seasonal fluctuation and the high number of transients. Table 2.2 and Figure 2.5, compiled from several different (and sometimes contradictory) sources, reflect the dependency of the town on the gold mines through the first twenty years of its existence, the growing federal government presence in the early 1960s and the arrival of the territorial government and an expanded service sector after 1967.

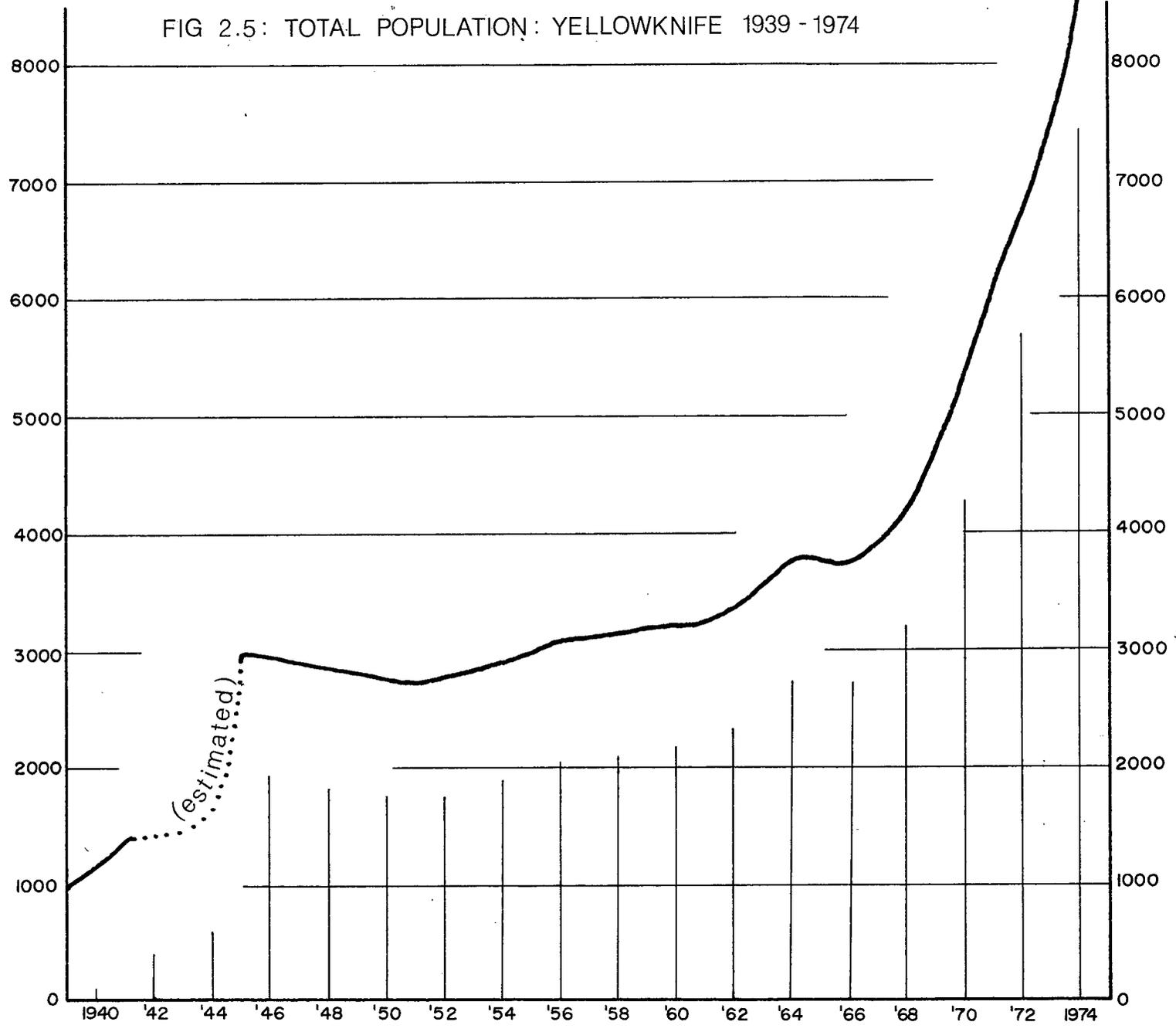
TABLE 2.2

## POPULATION GROWTH: YELLOWKNIFE, 1939-1974

Year	Population	Change From Previous Date
1939	1,000	. . . . .
1941	1,410	+ 41%
1945	3,000	+113
1951	2,724	- 10
1956	3,100	+ 14
1961	3,245	+ 5
1964	3,787	+ 17
1966	3,741	- 1
1971	6,122	+ 64
1973	7,500	+ 23
1974 (documented)	8,100	+ 8
(estimated)	8,600	

For the decade 1951 to 1961, total population rose by 19 percent, but for the eight-year period following 1966, the increment was 117 percent. The community is also approaching a demographic sex balance; in 1951, almost two-thirds (64.8 percent) of the total were male, but this percentage has declined to 56.6 percent in 1961 and 54.1 percent in 1971. The population is young, with 65 percent of working age (fifteen to sixty-four years old), one of the highest ratios in the North.<sup>30</sup> Only 1.5 percent are over sixty-five years old, while 45 percent of the population

FIG 2.5: TOTAL POPULATION: YELLOWKNIFE 1939 - 1974



is under nineteen. Birth and death rates reflect this population structure; in 1973 (the first year for which local statistics were available) the city's birth rate was 25 per 1,000 population, and its death rate only 4 per 1,000.<sup>31</sup>

Growth in the native Indian population has not kept up with the large influx of southern whites since 1967. Again, accurate figures are difficult to find. There are 552 registered treaty Indians belonging to the Yellowknife Band of the Dogrib Tribe; all but 65 are living on crown land at the north end of Latham Island (Lot 500) or in the village of Detah across Yellowknife Bay.<sup>32</sup> An estimated additional 550 are either non-treaty Indians or Metis living permanently in Yellowknife. There is also a transient native group in Yellowknife that may approach 100 in number; these are people from Chipewyan and Dogrib tribes that come to Yellowknife from the smaller communities around Great Slave Lake to seek seasonal work, or to visit friends and relatives. In total, slightly over ten percent of Yellowknife's population can be classed as Indian or Metis; this figure has declined relatively since 1951, when twenty percent (550 of 2,724) of the total population was of Indian or part-Indian descent.<sup>33</sup>

Shifts in the occupational structure reflect the diversification of the urban economy to that of an administrative-service centre from a centre based on the mining industry. The generalized employment breakdown for the years 1951, 1961, 1970, and 1974 is given in Table 2.3. Mine employees have remained stable in number since the late 1950s but have declined relatively from 56.5 percent of the total work force in 1951 to 15 percent in 1974. The government sector has grown from 147 employees in 1951 to 1,077 in 1974, of which 686 work for the territorial

government and 391 for the federal government. But, while the government sector continues to grow absolutely, as a proportion of the total labour force it appears to be declining from its peak of 33.9 percent in 1970. This relative decrease to 26.9 percent of the 1974 total is attributable to the rapid rise in the non-government service sector, which employed 2,331, or 58.1 percent of the total Yellowknife labour force in 1974. Thus it appears that the non-basic, or city-servicing, functions are catching up with the basic sector, which expanded with the arrival of public servants.<sup>34</sup> The basic/non-basic ratio in 1961 was calculated as 1.00 : 0.55,<sup>35</sup> and in 1971 as 1.00 : 0.80.<sup>36</sup> The 1980 projected estimate is 1.00 : 1.20.<sup>37</sup>

TABLE 2.3

## YELLOWKNIFE WORK FORCE AND EMPLOYMENT STRUCTURE

Year		Total Work Force	Mines	Governments	Other
1951	Number	1,438	813	147	478
	Percent	100.0	56.5	10.2	33.3
1961	Number	1,403	602	210	591
	Percent	100.0	42.9	15.0	42.1
1970	Number	2,500	650	847	1,003
	Percent	100.0	26.0	33.9	40.1
1974	Number	4,008	600	1,077*	2,331
	Percent	100.0	15.0	26.9	58.1

\*Employees of Federal Crown Corporations are not included in this total.

SOURCES: 1951, 1961: Census of Canada

1970: M. St. Pierre, Socio-Economic Implications of Gold Mine Closure in Yellowknife, p.9.

1974: Yellowknife City Census

This growth in the non-basic tertiary sector of the urban economy is shown in Table 2.4. The number of establishments in the tertiary sector rose by 64 percent between 1972 and 1974, the largest increases being registered in the retail business (82 percent) and general service (182 percent) functions. During the same time period Yellowknife's population rose by 30 percent.

TABLE 2.4

GROWTH IN THE TERTIARY SECTOR  
YELLOWKNIFE: 1962, 1972 AND 1974

Functions	Number of Establishments		
	1962	1972	1974
Retail Business . . . . .	14	29	53
Financial . . . . .	1	7	7
Transportation . . . . .	n.a.	16	19
Automotive and Equipment . . . . .	3	7	13
General Services . . . . .	12	38	107
Professional . . . . .	8	19	26
Contractors and Trades . . . . .	7	58	70
Wholesale Business . . . . .	n.a.	6	7
Communication Media . . . . .	2	3	6
Churches . . . . .	6	10	10
Hotels . . . . .	3	5	6
<b>Total . . . . .</b>	<b>56</b>	<b>198</b>	<b>324</b>

SOURCES: 1962: Bourne, p. 36 (Table III).  
1972: a) N.W.T. Community Data, Yellowknife, March 31, 1972; Dept. of Industry and Development.  
b) 1972 Official City Directory, Yellowknife, Territorial Publications, Whitehorse, Y.T., 1972.  
1974: a) N.W.T. Community Data, Dept. of Information, August 1974.  
b) 1974 Yellowknife City Directory, M&S Publications, September 1974.  
c) C.N.T. Telephone Directory, January 1, 1974.

The total income from all sources for Yellowknife residents has been calculated as \$24.6 million in 1973, or about \$3,300 per capita,<sup>38</sup> an increase from \$2,000 per capita in 1970.<sup>39</sup> This is the highest per capita income level of any community in the Northwest Territories.<sup>40</sup>

### Summary

As in many communities in Canada's North, a non-renewable resource has provided the stimulus for the establishment of Yellowknife but not necessarily the impetus for permanency. Assured permanency, together with rapid population growth and economic diversification, was spurred by a political decision, and was compounded by developments in global markets for the non-renewable resources of gold and petroleum.

The types of traditional statistics presented in this chapter provide an adequate impression of the community's economic and demographic history and structure, but they fail to demonstrate Yellowknife's genre de vie, its way of life, including community problems. There has been a net increase of 5,000 people since 1966, but do they intend to stay? If not, why? In a number of ways Yellowknife still conforms to the northern community "model", in terms of its inability to settle into a stage of urban social stability, however that may be defined in a northern context. Its boom means Fort Smith's stagnation, for many of the government functions found in this regional office for the Mackenzie District before 1967 have been transferred to Yellowknife. Now that Yellowknife's existence as a permanent community has been assured, ideas concerning the quality of life, or liveability, of the community should be investigated.

Footnotes

<sup>1</sup>Paul M. Koroscil, "The Changing Landscape of Whitehorse, Y.T.: A Historical Perspective," Peoples of the Living Land: Geography of Cultural Diversity in British Columbia, ed. Julian V. Minghi (Vancouver: Tantalus, 1972), p. 183.

<sup>2</sup>Charles Camsell, "The Yellowknife Mining District," Canadian Geographical Journal 18 (June 1939): 314.

<sup>3</sup>L. S. Bourne, Yellowknife, N.W.T.: A Study of its Urban and Regional Economy, Northern Co-ordination and Research Centre Report 63-8, (Ottawa: Department of Northern Affairs and Natural Resources, 1963), p. 123.

<sup>4</sup>Camsell, p. 312.

<sup>5</sup>Ray Price, Yellowknife (Toronto: Peter Martin Associates, 1967), p. 63.

<sup>6</sup>F. Gerald Ridge, "General Principles for the Planning of Sub-Arctic Settlements" (Ph. D. dissertation, McGill University, 1953), p. 406.

<sup>7</sup>Ibid., p. 407.

<sup>8</sup>Price, p. 124.

<sup>9</sup>Ibid., p. 122.

<sup>10</sup>Ibid., p. 135.

<sup>11</sup>Ibid., p. 179.

<sup>12</sup>Canadian Mines Handbook: 1973-74 (Toronto: Northern Miner Press, 1973), p. 136.

<sup>13</sup>F. H. Stephens, "Yellowknife, 1947," Western Miner and Oil Review 20 (November 1947): 55-58.

<sup>14</sup>Ridge, p. 420.

<sup>15</sup>Department of Indian and Northern Affairs, North of 60: Mines and Mineral Activities 1973 (Ottawa: Information Canada, 1974), p. 15; Yellowknife News of the North, 6 February 1974, p. 17.

<sup>16</sup>Ridge, p. 423.

<sup>17</sup>Yellowknife News of the North, 6 February 1974, p. 17.

<sup>18</sup>This company may resume operations in 1975 or 1976. See Yellowknife News of the North, 8 January 1975, p. 1.

19Price, p. 209.

20Ibid., p. 218.

21Ridge, p. 409.

22Price, p. 205.

23From the report of the Carrothers Commission, quoted in W. O. Kupsch, "The New Northwest Territories," Canadian Geographical Journal 76 (January 1968): 15.

24Government of the Northwest Territories, Report of the Task Force on Personnel Policy and Management, 1974, Appendix I.

25City of Yellowknife, The 1974 City Census, Tabled October 17, 1974.

26At the beginning of 1971, both mines announced they would probably cease their operations during 1974; see Marcel St. Pierre, The Socio-Economic Implications of Gold Mine Closure in the Yellowknife Region (Ottawa: Northern Economic Development Branch, Dept. of Indian Affairs and Northern Development, 1972, Declassified 1974), p. 1. Information on imminent mine closure is also revealed in "Giant Yellowknife Sees Little Cheer," Northern Miner, 27 April 1967, p. 17; "Gold Reserves at N.W.T. mine termed limited," Toronto Globe and Mail, 14 April 1971, p. B7; and "Giant YK earnings up again but mine's end is in sight," Northern Miner, 26 April 1973, p. 23.

27"A Major New Gold Development: Cominco to sink 5,500-ft. shaft at Con," Northern Miner, 26 April 1973, p. 1.

28Price, prologue.

29City of Yellowknife, The 1974 City Census. The census was taken for the purpose of increasing the grant from the Territorial Government to the municipality, which is determined on a per capita basis.

30Gemini North Ltd., for Canadian Arctic Gas Pipeline Ltd., Social and Economic Impact of Proposed Arctic Gas Pipeline in Northern Canada, 7 vols., 2: 346.

31Interview with Deputy Registrar General of Vital Statistics, Government of the Northwest Territories, Yellowknife, 23 July 1974.

32Registered Indian Population by Age-Sex-Residence, 1973, Dept. of Indian Affairs and Northern Development, Ottawa, pp. 0042-0044.

33Ridge, p. 420.

34For a detailed explanation of the derivation and use of basic-non-basic ratios, see J. W. Alexander, "The Basic-Nonbasic Concept of Urban Economic Functions," Economic Geography 30 (July 1954): 246-61.

<sup>35</sup>Bourne, p. 62.

<sup>36</sup>Makale, Holloway and Associates Ltd., General Plan: City of Yellowknife (Edmonton, 1971), p. 13.

<sup>37</sup>Ibid., p. 13.

<sup>38</sup>Gemini North Ltd., Impact of Arctic Gas Pipeline, 2: 352.

<sup>39</sup>S. MacBain, Mackenzie District Manpower Survey, (Economic Staff Group, Dept. of Indian Affairs and Northern Development, Ottawa, 1971), Table 67.

<sup>40</sup>A settlement with a population of forty, thirty miles south of Hay River, appropriately named Enterprise, officially has the highest per capita income. Simply a collection of motels, gas stations, and equipment maintenance garages, it is entirely dependent on highway traffic for its existence.

## CHAPTER III

### THE SOCIAL GEOGRAPHY OF CONTEMPORARY YELLOWKNIFE

#### The Social Geography of Northern Communities

It is often mistakenly assumed by geographers that fruitful research into social and behavioural urban phenomena can only be undertaken in large communities, that it is simply not worthwhile to investigate human geographic patterns and processes occurring in towns of the size found in Northern Canada. Consequently, much of the rigorous social research in the North has had a distinct psychological,<sup>1</sup> sociological,<sup>2</sup> or anthropological<sup>3</sup> orientation, concentrating heavily on the native population. Geographers, too, though ignoring the urban areas, have carried out useful research in many northern villages and hamlets.<sup>4</sup> But the complex mix of residents found in the larger communities with contrasting cultural, racial, ethnic, occupational and lifestyle backgrounds provides the human geographer with a challenging field of investigation. This chapter discusses the social geography of Yellowknife from both theoretical and empirical viewpoints.

Much of the relevant social research done in northern communities has been based upon a three-way breakdown of the population into northern white, Metis, and native categories. As J. Fried points out, this is too simplistic a generalization.<sup>5</sup> There exist "southern Canadian-type suburbs on the one extreme, and on the other are shack towns, construction camps, squatter neighbourhoods, and even tent cities."<sup>6</sup>

Some of these residential areas have been studied in detail, but often on an individual basis. For example, Lotz examined a squatter neighbourhood in Whitehorse, arguing that the squatters illustrated the socio-economic dilemma of old versus new.<sup>7</sup> As individualistic northerners they were accepted by the local population until 1957, when a subdivision was built on the riverbank opposite the squatter area. Formerly peripheral but now central, the federal government introduced block subdivision and zoning legislation into the squatter neighbourhood, effectively eliminating it.

Just as squatter communities have been investigated, so have new northern suburbs. Inuvik is a new town built in the 1950s in the Mackenzie Delta. "Probably the single most outstanding feature of Inuvik is the contrast between the unserviced residential area, inhabited chiefly by native northerners, and the serviced residential area, home to most of the white transients."<sup>8</sup> It is the white government and business residents of the serviced area that Parsons examines, discussing their socio-economic characteristics, and their attitudes towards the community generally and the native people in particular. The principal criteria determining the residential area in which a person or family will live are "socio-economic or occupational status, marital status, and whether or not employment is within or without the government service. A considerable degree of residential segregation is evident along these lines."<sup>9</sup> To those familiar with the North this is an obvious conclusion, but it is nonetheless a crucial one in understanding the social geography of larger northern communities.

There exist two major shortcomings to these and other investigations<sup>10</sup> that touch upon the urban social geography of northern communities.

As mentioned above, research has generally concentrated upon one component of a broader residential taxonomy, both socially and spatially, often ignoring the relationships between the discrete groupings. Perhaps this is logical for in many northern settlements one social group is numerically dominant, whether it be miners, treaty Indians, government employees, Metis, or labourers. But in Yellowknife, and increasingly in other communities, these and other residential groups are all in evidence and cannot be treated in isolation. A second problem with past geographic research in the North stems from the lack of a theoretical base from which to operate; in particular, the conceptualization of the role of the environment is incomplete. "What has occurred in the North is a fundamental change in the behavioural environment in which people act--both the environment as it is . . . and the environment as it is conceived to be."<sup>11</sup>

#### Social Geography and Human Ecology

In the course of time every section and quarter of the city takes on something of the character and qualities of its inhabitants.<sup>12</sup>

It is the opinion of many writers that this original notion of human ecology, developed by Park in 1916, became, as Wirth argues, something that is was not intended to be.<sup>13</sup> Park set out to understand the city and its neighbourhoods both as places and as moral regions in which the residents could enjoy the moral climate that they desired. It was the moral distances which made Park's Chicago a "mosaic of little worlds";<sup>14</sup> the individual could always find, someplace in the city, the environment in which he felt most at ease. Park's view of the urban environment was an organic one, emphasizing the freedom that was possible for men in cities.

But, according to Wirth<sup>15</sup> and Michelson,<sup>16</sup> Park's original work in human ecology became confused by the emphasis on competition for space,

with a hierarchy of dominance evolving as the major paradigm. Wirth, as early as the 1930s, was warning against such a simple approach to causality. In ecological studies of deviant, political, and social behaviour "it has been sometimes naively assumed that, once the spatial distribution of these has been traced . . . there remains nothing for the human ecologist to do but to relate these phenomena to other ecological data to arrive at valid explanations. This view overlooks the fact that social life is a complex, interdependent whole."<sup>17</sup> This ecological method, in which ecological correlation was used to establish and test the degree of relationship among variables, became quite independent of human ecology.<sup>18</sup>

Michelson suggests some reasons human ecologists seldom analyzed explicitly the interrelations of the perceived environment with social phenomena, two of which are related to the aforementioned shortcomings of northern research. "Space has been utilized as a medium in most of human ecology, rather than as a variable with a potential effect of its own."<sup>19</sup> The environment, both in its physical sense and as a behavioural setting, offers possibilities and establishes limits for social and psychological existence and development. It "sets the stage for man, the actor."<sup>20</sup> Just as the northern physiographic and climatic environment has always been viewed as an obviously strong variable controlling human activity, so does the human environment, the northern behavioural setting, present options for human behaviour. Michelson terms the second deficiency as the fixation on community aggregates. "For theoretical and for very practical reasons, people living in sub-areas of cities have been treated as undifferentiated masses."<sup>21</sup> Not only have several residential environments within the larger community not been sufficiently compared, but the structural adaptations to these behavioural environments by their

residents have not been adequately examined. Yellowknife, with its disparate social groups and social areas juxtaposed in a small physical space, provides an excellent field laboratory for a broader investigation into the nature of the perceived environment, and the level of satisfaction and nature of behavioural adaptations to it by each of the town's social groups.

### Socio-economic Distribution

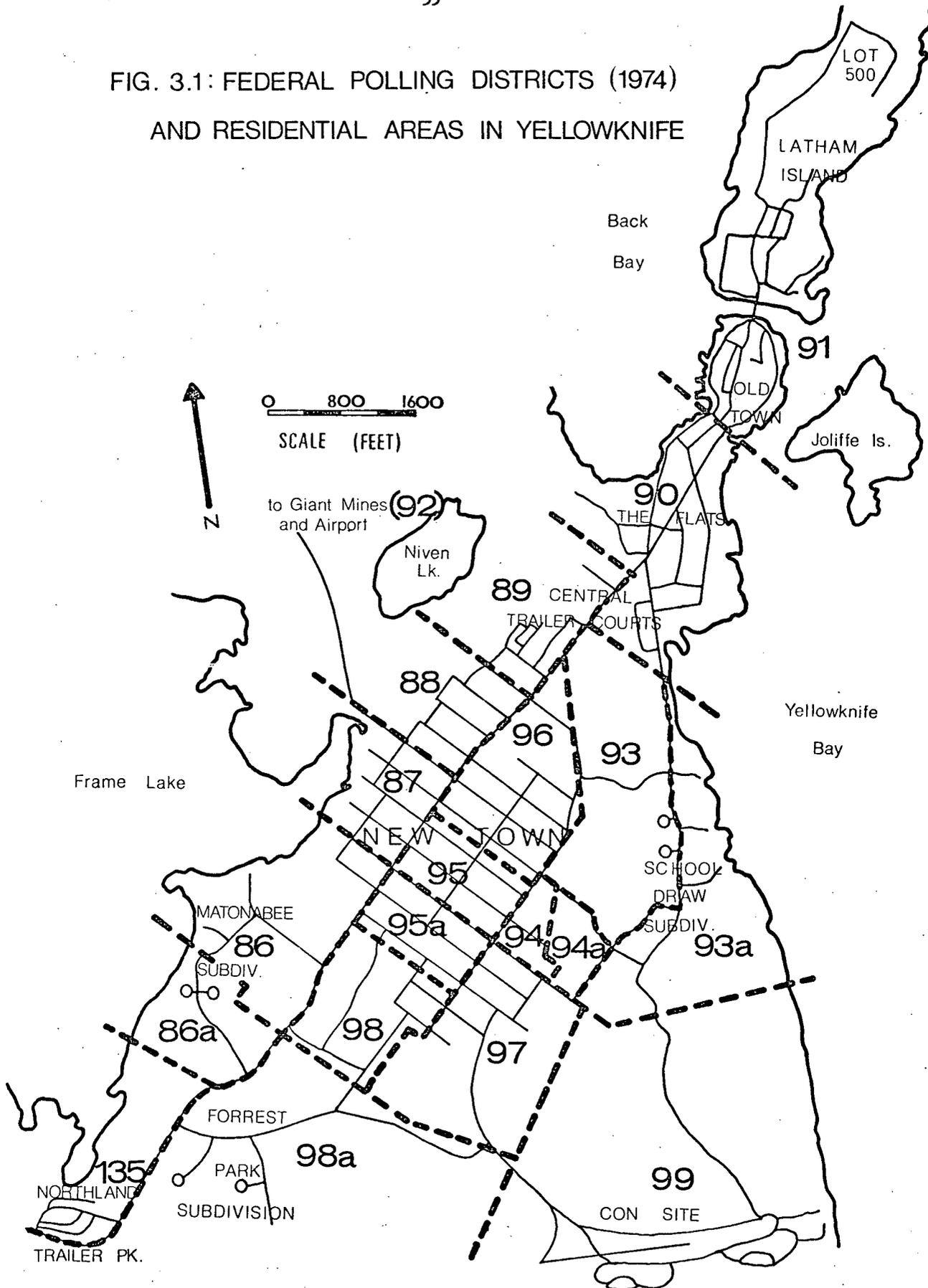
Social area analysis, or its computerized successor, factorial ecology, is generally employed to define sub-areas of cities in terms of social rank, urbanization, and segregation of the component populations. Neither method has been attempted for Yellowknife. Operationally, the lack of sufficient census data would make such an undertaking difficult; moreover, it was felt that two simpler indicators--occupation and assessed housing values--would yield an adequate measure of socio-economic characteristics at this purely morphological level.

The Blishen socio-economic scale of Canadian occupations was used to measure status in seventeen Yellowknife federal polling districts or aggregations thereof (Figure 3.1). Occupation has often been used as an indicator of social status, income, and education. O. D. Duncan provides a rationale for this:

. . . a man qualifies himself for occupational life by obtaining an education; as a consequence of pursuing his occupation he obtains income. Occupation, therefore, is the intervening activity linking income to education . . . . It would not be surprising if an occupation's prestige turned out to be related to one or both of these factors.<sup>22</sup>

The revised Blishen scale<sup>23</sup> considers both the perceived prestige rating and the actual educational requirement and income level for the occupation in question. It combines the Pineo-Porter scale,<sup>24</sup> which

FIG. 3.1: FEDERAL POLLING DISTRICTS (1974)  
AND RESIDENTIAL AREAS IN YELLOWKNIFE



rated 294 occupational titles on social standing as perceived by a representative Canadian sample, and an earlier Blishen scale,<sup>25</sup> based on actual education and income characteristics of 1951 census occupations. The result is a socio-economic index score for each of 320 occupations, examples of which appear in Table 3.1.

TABLE 3.1

BLISHEN SOCIO-ECONOMIC INDEX FOR OCCUPATIONS  
SOME EXAMPLES RELEVANT TO YELLOWKNIFE

Occupation	Socio-economic Index
Chemical engineers	76.69
Geologists	75.49
Lawyers	75.41
Office managers	60.42
Clergymen and priests	59.20
Social welfare workers	55.62
Surveyors	53.25
Linemen and servicemen	45.05
Owners and managers, retail	43.69
Members of Armed Forces	41.43
Prospectors	37.73
Sales clerks	37.14
Protective service occupations	35.80
Plumbers	34.38
Miners	33.38
Millmen	32.13
Mechanics and repairmen	31.30
Labourers, trade	30.19
Carpenters	29.71
Construction workers	29.43
Trappers and hunters	25.36

SOURCE: B. Blishen, 1967, pp. 45-50.

Lists for Yellowknife's twenty polling divisions for the July 1974 federal election yielded names, occupations, and postal addresses of all eligible voters. The occupations were sampled systematically from these lists: every fifth name was sampled for occupation in all districts

except for the central trailer court polling district (no. 89) where the basic interval was four, and in the New Town polling districts where every tenth name was chosen. If the name determined by the sample was a member of a family living in the same dwelling unit, the occupation of the male household head was used. The Yellowknife City Directory<sup>26</sup> helped to determine who the head of the household was. The directory was also valuable in clarifying the occupational description. In some cases, if the occupation was too ambiguous to determine a score for it, or if the occupation did not appear in the Blishen scale, the name immediately following it was used.

The mean socio-economic score, and its standard deviation, for seventeen Yellowknife sub-areas are given in Table 3.2. Absolute mean scores range from 34.6 in the Flats-South Old Town area to 55.0 in the single family housing area of the Matonabee subdivision. Although not extreme, a significant degree of residential segregation is therefore present as determined by the Blishen socio-economic status scale; more useful, perhaps, are the relative rankings of residential sub-areas within the city. A relationship between the mean status of an area and its status homogeneity, as measured by the standard deviation of the score, is apparent from Table 3.2. The higher the area is in terms of average socio-economic status, the more heterogeneous is the status of the occupations found within it. Conversely, those areas that score low on mean status also tend to be low in status variation. A linear regression employing mean socio-economic score as the independent variable and the score's standard deviation as the dependent variable for the seventeen polling districts reveals a correlation coefficient of 0.43, suggesting a moderate positive relationship.<sup>27</sup> The only major exception to this is

TABLE 3.2  
 POLLING DISTRICT SOCIO-ECONOMIC STATUS

Polling District	Area Description	Sample Size	Socio-Economic Score			
			Mean	Rank	Std. Dev.	Rank
89	Central Trailer Courts	38	37.4	16	9.1	16
135	Northland Trailer Park	56	43.0	12	13.1	10
93	West School Draw	23	53.6	2	14.6	3
93a	East School Draw	39	46.5	7	14.4	4
94a	School Draw Apts.	30	52.9	3	13.8	11
99	Con Townsite	42	40.3	13	11.9	15
86	Matonabee - 56th Street	33	55.0	1	14.2	6
86a	Matonabee - Row housing	45	47.9	6	12.0	14
87, 88	West New Town	25	44.1	11	13.5	7
94, 97	Southeast New Town	28	45.3	8	13.4	8
95, 95a	East-Central New Town	30	44.5	9	14.8	2
96	Northeast New Town	33	44.2	10	14.2	5
98	South New Town - 57th St.	63	51.4	4	12.1	13
90	Flats, South Old Town	38	34.6	17	8.9	17
91	Latham Is., North Old Town	37	40.2	14	16.2	1
92	Giant Townsite	31	39.3	15	13.1	9
98a	Forrest Park Subdiv.	34	48.9	5	12.3	12

the socially heterogeneous Latham Island - North Old Town polling district; when its effect is removed the correlation coefficient rises to 0.60.

Table 3.3 aggregates into seven residential areas seventeen of the twenty polling districts. The newer subdivisions of Matonabee and School Draw are highest in socio-economic status, while the Central trailer Courts and Old Town - Latham Island appear lowest. Again, the positive relationship between the neighbourhood's mean socio-economic status and the div-

ersity in status among its residents is in evidence. For these seven neighbourhoods, the interval coefficient of correlation between the mean status scores and the standard deviations of the scores is 0.64.<sup>28</sup> Results presented in Tables 3.2 and 3.3 will be explored in greater depth in a subsequent section.

TABLE 3.3  
NEIGHBOURHOOD SOCIO-ECONOMIC STATUS

Polling District	Residential Area	Sample Size	Socio-Economic Score			
			Mean	Rank	Std. Dev.	Rank
86, 86a	Matonabee	78	50.9	1	13.3	3
93, 93a 94a	School Draw	92	50.4	2	14.2	1
87, 88, 94 97, 95, 95a, 96	New Town	116	44.5	3	13.9	2
135	Northland Trailer Park	56	43.0	4	13.1	5
99	Con Townsite	42	40.3	5	11.9	6
89	Central Trailer Courts	38	37.4	6	9.1	7
90, 91	Old Town - Latham Is.	75	37.3	7	13.2	4

The second surrogate measure of socio-economic status is the assessed value of detached dwellings, including mobile homes. Housing values in an area are traditionally reliable indicators of the socio-economic standing of its residents. For the approximately 120 blocks in Yellowknife that contain detached dwellings, mean assessed building values were gleaned from 1973 assessment rolls.<sup>29</sup> Once plotted on a map, inter-

polation of these 120 points permitted the construction of an isarithmic map (Figure 3.2) with an interval of \$1,000, reflecting assessed values of detached houses and mobile homes. The actual assessed values are two-thirds of the replacement value of the building according to 1963 Edmonton criteria, the replacement value being somewhat less than the actual market value of the dwelling unit. The mean assessed values for each block were then amassed to the polling district level. (Table 3.4.) A pattern similar to that in Table 3.2 emerges: highest housing values appear in the new subdivisions, and the lowest in Old Town, parts of Latham Island, and the Central Trailer Courts.

A simple linear regression was performed for the thirteen polling districts for which both mean assessed housing value and mean socio-economic status data were available. The interval correlation coefficient ( $r=0.92$ ) was significantly strong: 85 percent of the variation in mean house value ( $y$ ) among the thirteen polling districts is present in the occupational standing of these districts ( $x$ ).<sup>30</sup> This suggests that both these measures are adequate indicators of the relative socio-economic status of Yellowknife's residential areas.

### Neighbourhoods and Social Space

Much of the criticism of social geography stems from what Lee terms "the awkward duality of physical and social."<sup>31</sup> Once homogeneous social areas have been delimited using such techniques as social area analysis, these areas are seldom related to residents' cognitive structure of their environment. According to Buttimer, these are complementary perspectives: besides providing areal delimitations, social geography should investigate such indicators of social space as social activity patterns and

FIG. 3.2: ISARITHM MAP OF YELLOWKNIFE  
ASSESSED HOUSING VALUES (x \$1000)

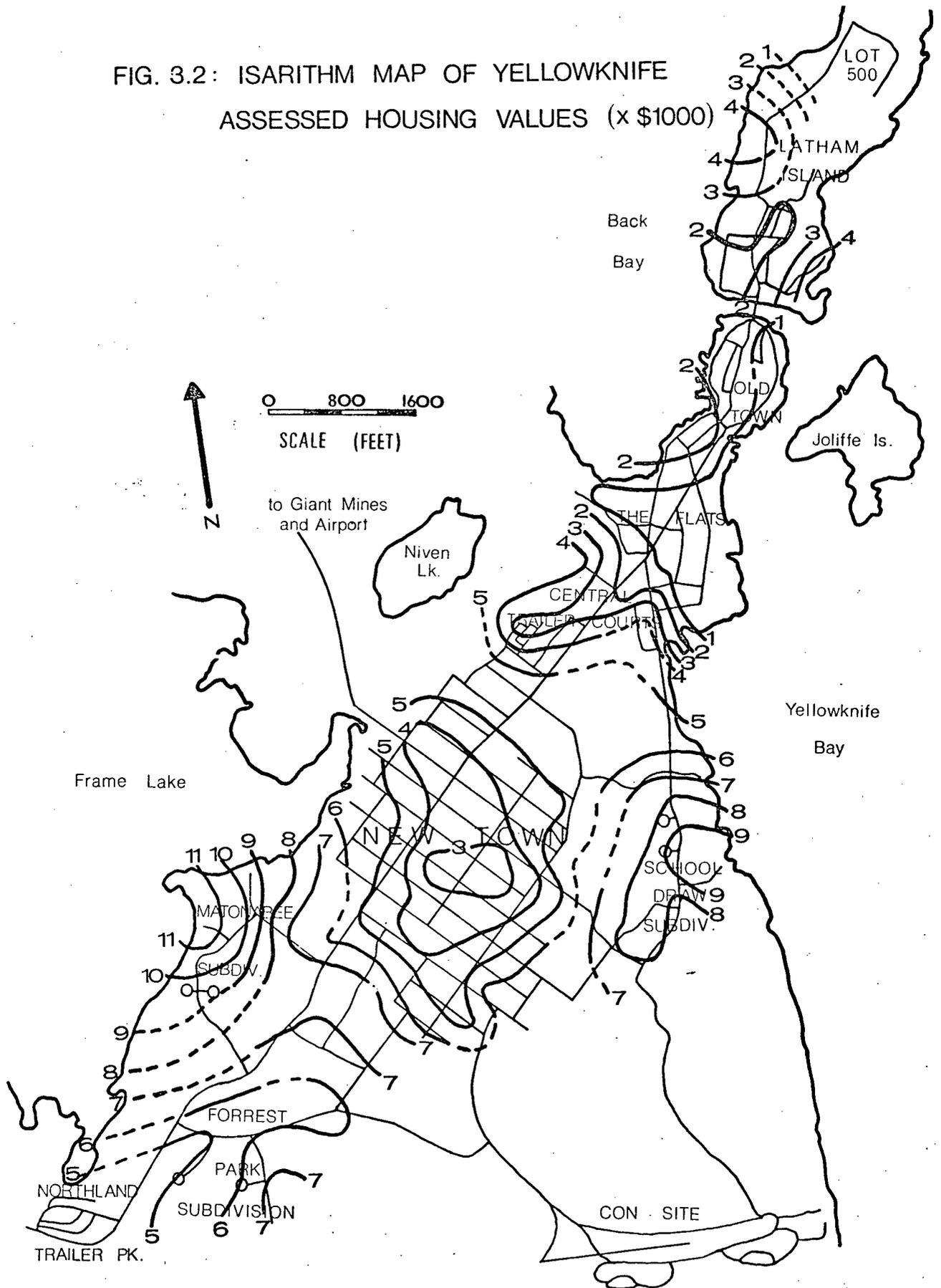


TABLE 3.4

MEAN ASSESSED VALUE OF DETACHED HOUSES AND MOBILE HOMES  
YELLOWKNIFE, 1973

Polling District	Residential Area	Number of Observations	Mean Assessed Value		
			Mean (x\$1,000)	Rank	Std. Dev.
89	Central Trailer Courts	80	3.05	11	. . .
135	Northland Trailer Park	167	4.42	9	. . .
93	West School Draw	31	8.13	3	1.59
93a	East School Draw	54	8.25	2	2.31
86	Matonabee - 56th St.	42	9.06	1	3.12
87, 88	West New Town	91	4.89	7	2.95
94, 97	Southeast New Town	64	5.58	6	2.17
95, 95a	East-Central New Town	107	3.76	10	2.35
96	Northeast New Town	102	4.48	8	2.45
98	South New Town - 57th St.	98	7.21	4	1.52
90	Flats, South Old Town	80	0.95	13	1.13
91	Latham Is., North Old Town	84	2.28	12	2.63
98a	Forrest Park Subdiv.	58	5.87	5	2.20

SOURCE: Assessment Rolls, Government of the Northwest Territories.

NOTE: No data was available for dwellings at the Con and Giant townsites.

patterns of identification with territory, that may provide clues to people's relationships with their environments.<sup>32</sup>

Recent studies have shown that a substantial proportion of behaviour is locally oriented.<sup>33</sup> Thus the concept of neighbourhood, while often used as a planning principle to help prevent uncontrolled urban sprawl, is being revived as a theoretical subject of inquiry in social geography. In recently constructed towns along Canada's resource

frontier such as Kitimat,<sup>34</sup> Elliot Lake,<sup>35</sup> and Thompson,<sup>36</sup> the neighbourhood concept is also employed to encourage social interaction at the sub-community level, and in reaction against mass housing of a similar type and age. Lee defines the neighbourhood in terms of a socio-spatial schema, a concept used to imply a synthesis of physical objects, social relations, and space:

Space is affected by what fills it, the social relations are influenced by the space, and the physical objects are closely identified with the people who live in them or make use of them. This complex interdependence results in a mental organization that functions as a unit, concerned with behaviour in one part of the surrounding environment.<sup>37</sup>

In his study, Lee suggests that the conventional concept of the neighbourhood, defined as a collectively acknowledged geographical area with defineable boundaries in which social groups attain a high level of interaction, is oversimplistic.<sup>38</sup> A related objective in this research is to investigate whether there is any group consistency in the attitudes of Yellowknife residents towards their "neighbourhood", both in terms of interaction patterns and of neighbourhood images. To this end, it will be useful to describe in some detail the characteristics of Yellowknife's residential districts.

#### Residential Areas in Yellowknife

Yellowknife consists of ten fairly discrete residential areas: the central trailer courts, Northland Trailer Park, School Draw subdivision, the townsites at Con and Giant mines, the new subdivisions of Matonabee and Forrest Park, the New Town, the Old Town - Latham Island area, and the Indian village of Detah (see Figure 3.1). Interviews with 221 residents were carried out in seven of these ten areas. Each residential area will presently be discussed in terms of location, dwelling type,

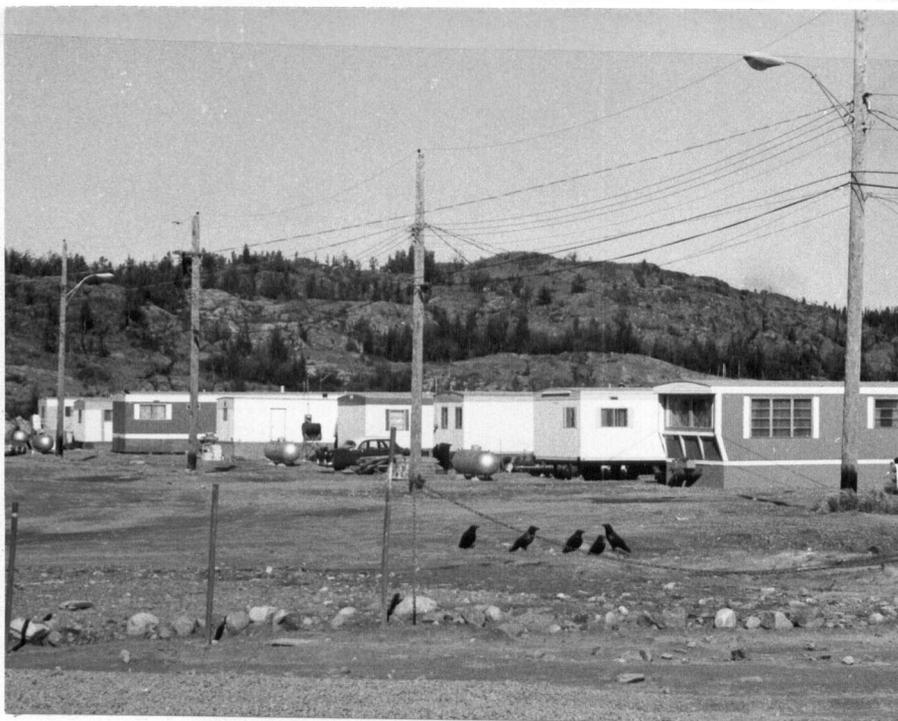
tenure and value, and residents' social, economic, and demographic characteristics. Full details of the sampling and interview procedure are given in Chapter Five. Here it will be sufficient to note that the sample appears to represent fairly accurately Yellowknife's population, when certain key characteristics of those interviewed are compared to available information concerning the population as a whole. The Yellowknife city census determined that 35.9 percent (2,911 of 8,100) of those residing in Yellowknife in August 1974 had moved to the city after January 1st, 1973.<sup>39</sup> Comparatively, 32.6 percent (72 of 221) of those sampled in July-August 1974 had lived in the city for the equivalent time period of eighteen months or less. The 1971 census found that 54.1 percent of the population was male;<sup>40</sup> 54 percent of the questionnaires were answered by males, or males with some input from the spouse. Apparently, the native population is slightly under-represented; eight percent of respondents were of Indian or part-Indian descent; this racial group has been previously estimated to constitute slightly over ten percent of the total Yellowknife population.<sup>41</sup> In terms of occupation, 16.5 percent of respondents who worked full-time were employed by the mines, 33.7 percent held government positions, and 49.8 percent were employed in the non-government service sector. From Table 2.3, it was noted that the 1974 city census figures showed 15.0 percent of the total work force to be employed by Con or Giant mines, 26.9 percent by governments, and 58.1 percent in the "other" (non-government service) category. Hence, government employees are slightly over-represented in the sample, primarily at the expense of those working in the non-government service sector. In general however, in spite of the non-random nature of the sampling procedure, the sample appears to be a good representation of the census population.

### Central Trailer Courts

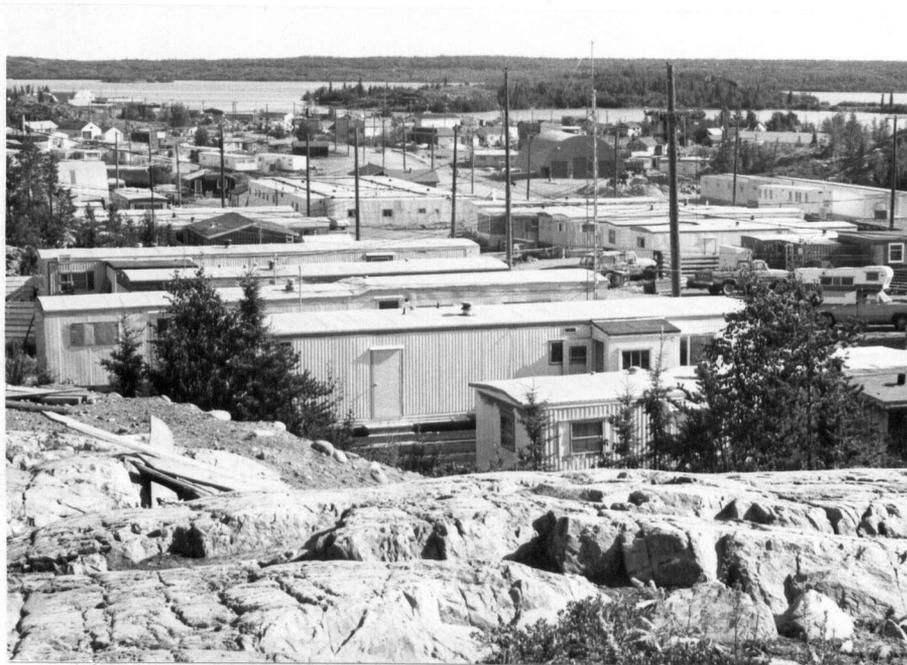
Situated off Franklin Road, the main street connecting the Old and New Towns, are four mobile home parks with a 1974 total of 120 spaces. The two largest are also the oldest, having been developed in the mid 1960s: Trail's End Trailer Park, with 53 mobile homes, had an average assessed value of \$2,710 in 1973, and the 27 trailers in the Franklin Road Court have a mean assessed value of \$3,720. The two newer courts, Bartam and Old Dump, constructed in 1973 and 1974 in response to a severe shortage of trailer space, have a combined capacity of 40. Most are occupied by newer mobile homes, with assessed values of about \$4,500. As Photographs 3.1 and 3.2 show, landscaping is virtually non-existent, and in the summer months dust or mud abounds, depending on the weather. Socio-economic status of the residents is uniformly low: with a mean of 37.4 on the Blisshen scale it ranks sixteenth of seventeen polling districts, and a standard deviation of 9.1 indicates a status homogeneity which ranks the area sixteenth of the seventeen polling districts listed in Table 3.2. Most household heads have occupations of the skilled or unskilled labour variety; education levels are the lowest of the seven neighbourhoods studied (Table 3.5).<sup>\*</sup> Not surprisingly, family incomes are also low: 76 percent of the households interviewed earned less than \$15,000 in 1973, compared to a city-wide figure of 55 percent.

Central trailer court residents have lived in Yellowknife for an average of almost four years, but within the trailer courts themselves the average is only eighteen months: a high percentage (72 percent) have lived in another dwelling in town. Trailer tenure leans heavily towards private ownership (64 percent), only 20 percent of the residents receive some sort of housing subsidy from their employers, compared to a city

<sup>\*</sup>Since this table is referred to frequently, it appears at the end of the chapter (p. 68) for ease of reference.



Photograph 3.1: The Old Dump Trailer Court, built on the site of a former garbage dump.



Photograph 3.2: Looking northeast over the mobile homes in the Franklin Road Trailer Court.

average of 57 percent. Yet, with the exception of the Franklin trailers, where lots are individually owned, the mobile home pads rent for about \$80 per month, an amount that has almost doubled since 1971.

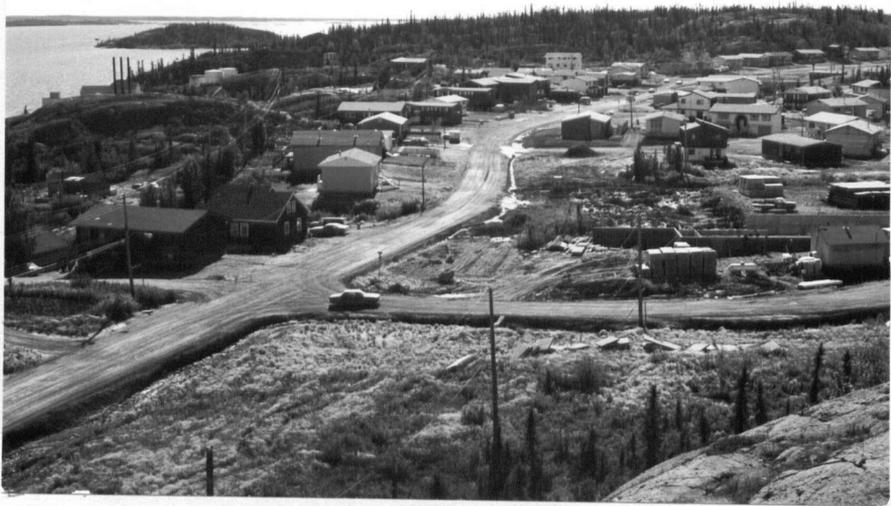
#### Northland Trailer Park

One mile south of the centre of New Town is Northland Trailer Park, in effect an instant subdivision built in 1972 to mitigate the shortage of serviced mobile home spaces. Owned locally by Northland Development Ltd., the park accommodated 200 trailers in 1974, and an additional 60 spaces are being developed west of the original boundary at the south end of Frame Lake. The serviced pads are leased for \$85 per month, but unlike the central trailer courts, some attempt at landscaping has been made, in the form of paved streets and underground wiring (Photograph 3.3). Most of the mobile homes are of recent construction, hence their mean assessed value of \$4,420 is somewhat higher than those in the central trailer courts.<sup>42</sup>

Residents of Northland exhibit social, economic, and demographic characteristics fairly similar to those of the central trailer courts (Table 3.5). Most of the employed population is found in the non-professional service sector; the mean socio-economic score is 43.0 on the Blishen scale, which is twelfth in rank of Yellowknife's seventeen polling districts. Educational achievement is low--only 30 percent have any post-secondary training--despite the fact that Northland residents are among the youngest in the city. Family incomes, however, tend to be slightly higher than the Yellowknife mean. As might be expected, 70 percent receive no housing subsidy from their employers.



Photograph 3.3: Northland Trailer Park, looking north-east towards the Forrest Park subdivision.

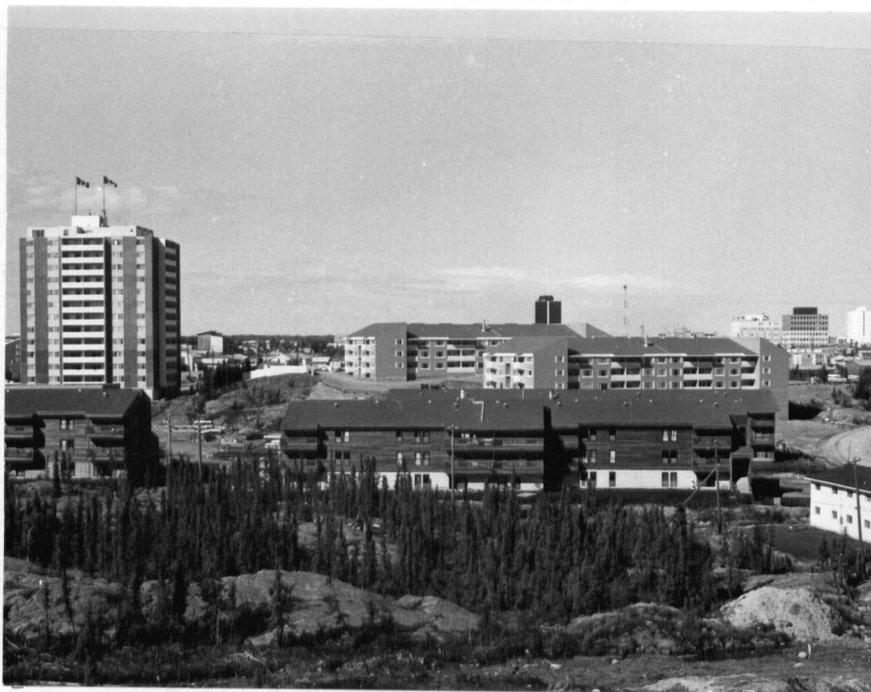


Photograph 3.4: New residential construction in the northern part of the School Draw subdivision.

## School Draw

Located east of downtown Yellowknife, below the West Bay fault, lies the School Draw subdivision. Prior to 1967, the area was home to several native households and white old-timers with no legal title to the land. Shortly thereafter, the area was serviced and subdivided under a land assembly program, and most of the residents relocated in the Flats just north of the draw, or on Latham Island. Although permafrost conditions necessitate the use of pilings in some areas of the subdivision, house and apartment construction is still going on. About half of the lots and houses are owned by the two upper levels of government and rented to their employees (Photograph 3.4). At the southern end of the draw, five low-rise apartment complexes have been built; again, most suites are rented to government employees (Photograph 3.5).

Average assessed values of the single family houses in School Draw are over \$8,000, an amount surpassed only by those in Matonabee (Figure 3.1 and Table 3.4). Similarly, socio-economic status on the Blishen scale is 50.4 for area residents, also ranking second to Matonabee residents. People in School Draw have lived in Yellowknife for an average of five years, half of that in School Draw itself. Seventy-eight percent of those interviewed live in subsidized accommodation, a percentage well above the city figure. Both the income and education levels of respondents are well above the comparable figures for Yellowknife: only 39 percent of School Draw households earned less than \$15,000 in 1973, while 53 percent of those interviewed have some post-secondary training. Well over half of those employed work for the federal or territorial government. In short, the subdivision is characterized by upper-level income groups, often government professionals or established businessmen, living in recently con-



Photograph 3.5: Apartments at the southern edge of the School Draw subdivision.



Photograph 3.6: Four-unit apartment buildings, constructed by Con in the late 1930's, located near the Yellowknife Bay shoreline.

structed housing, many commanding a view over Great Slave Lake.

#### Con Townsite

Yellowknife's oldest residential area is found at the Con mine, one mile south of School Draw. The area is divided into three residential sectors: the trailer camp, the Rycon camp, and the lower camp. The latter, built in the late 1930s on the waterfront, is dominated by four-unit apartment buildings and bunkhouses for single men (Photograph 3.6). A few larger houses on the shoreline are inhabited by families of the managerial elite. The smaller single family houses, in various stages of upkeep, are found west of the lakefront in the Rycon camp. Constructed in the 1940s, they are usually inhabited by miners with a long record of service to the company, who pay heavily subsidized rents. The residential environment at the Rycon camp is cottage-like (Photograph 3.7), with narrow gravel access roads winding through the stunted trees. The most recent additions to Con's housing stock are the mobile homes, most of which are parked in a row just north of the Rycon camp. (Photograph 3.8). Residents tend to be recently-arrived mine employees with families; most are on the waiting list for company houses.

About half of Con's employees live outside the Con townsite. A 1974 contract settlement gives them, for the first time, a housing subsidy of \$2.75 per eight-hour shift worked.<sup>43</sup> At Con itself, rental subsidies range from 50 to 90 percent of the dwelling's market value.<sup>44</sup> The company is not losing money however, since construction costs have long been paid for, and repair work and upkeep are meagre.<sup>45</sup> Now that production at the mine is expected to continue for "many years to come,"<sup>46</sup> it appears that a new residential area is to be built along the lakefront



Photograph 3.7: Single family dwellings at Con. The mine shaft at left has been abandoned; in the foreground are gardens allotted to Con employees. The utilidor system, running horizontally across the centre of the photo, contains sewer and water lines; Con is the only area in the city where utilidoris are used.



Photograph 3.8: Mobile homes for Con employees and their families. In the background is Con's mill and headframe.

on both sides of the present camp, once the new shaft and expanded mill facilities are in operation.<sup>47</sup>

Con residents have education levels well below the city figure (only 24 percent have some sort of post-secondary education), and income levels are slightly below those of Yellowknifers as a whole. With a mean value of 40.3 on the Blishen socio-economic status scale, they rank thirteenth in the seventeen Yellowknife polling districts. Three-fourths of those interviewed worked for Con, mostly as miners and millmen but some were in professional or administrative positions with the company (Table 3.5). As expected, all were living in accommodation subsidized by Con; 14 percent of these had bought the mobile home in which they were living from the company and were paying subsidized mortgages. Con residents were generally much older than the community average, and respondents tended to have lived for a greater period of time both in their area and Yellowknife itself. The sample is biased in this regard, however, as short-term employees are often single men who live in the bunkhouses, which were not systematically represented in the sample.<sup>48</sup> The seniority list of Con's 162 general (i.e. underground and mill) employees shows that 71 have been at Con for less than one year, while 37 have been with the mine for over ten years. Mean length of employment is 68 months.<sup>49</sup>

#### Matonabee Subdivision

Just southwest of the New Town is the Matonabee subdivision, named after the local Indian chief who was indispensable to the success of Samuel Hearne's expedition. The subdivision consists of two distinct sub-areas. The older single family houses along 56th Street, recognized by Ridge as being among the most expensive in the community in the early

1950s,<sup>50</sup> have been complemented by newer detached houses along cul-de-sacs abutting Frame Lake (Photograph 3.9). Away from the lake is a complex of row housing units, completed in early 1973 (Photograph 3.10). The latter is truly a government enclave: residents must work for the federal government to live there.

Socio-economically, Matonabee ranks above all other areas in Yellowknife (Tables 3.2 and 3.3). In the detached housing district, mean status is 55.0 on the Blisshen scale; in the row housing area, it is somewhat lower at 47.9, reflecting a greater proportion of lower level government positions, including armed forces and R.C.M.P. personnel. The mean assessed value of the single family houses is over \$9,000, the highest in the community (Table 3.4 and Figure 3.1). Not surprisingly, this area houses the upper-level civil servants, both federal and territorial.

From Table 3.5, it is evident that most Matonabee residents are recent arrivals to the city, having lived in Yellowknife for an average of only 32 months. Scarcely one-third have lived in another dwelling in the community, the lowest proportion of all the neighbourhoods under study. Thirteen percent of those sampled own their own homes; the other 87 percent are paying rent that is subsidized by their government employer. Discounting housewives,<sup>51</sup> 84 percent of those interviewed worked for the government in some capacity. Incomes of Matonabee residents are the highest in Yellowknife--only 30 percent of households earn less than \$15,000 per year--and levels of education are above the city average.

#### New Town

The New Town contains approximately one-third of Yellowknife's population, as well as most of its commercial, retail, recreational, and



Photograph 3.9: New large single family houses in the Matonabee subdivision. Frame Lake is visible at extreme right.

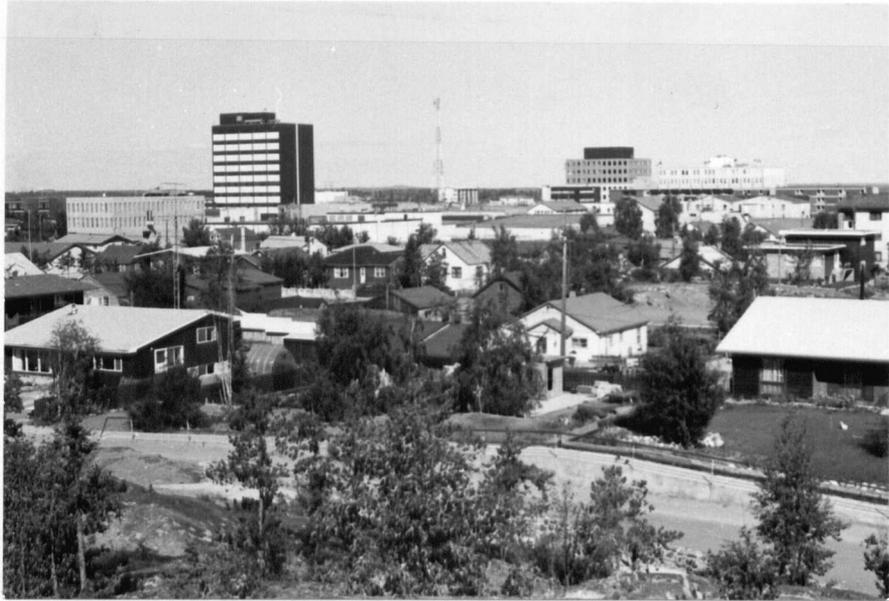


Photograph 3.10: Row housing in the Matonabee subdivision.

institutional functions. It is bounded on the west by Frame Lake, on the north by the central trailer courts, on the east by a transmission line atop the West Bay Fault, and on the south by bedrock knolls and non-residential land uses. Almost all residential land in the New Town is occupied; however, some of the older, lower quality housing stock, especially that found on the periphery of the central business district, is being replaced by higher density accommodation or commercial structures.

With the exception of mobile homes, all types of housing, from multi-storey apartment units to large single family houses are represented (Photographs 3.11 and 3.12). Housing quality also varies: mean assessed values of detached dwellings range from about \$3,000 in blocks peripheral to the core, to around \$6,000 on the northern, western, and southern extremities of New Town (Figure 3.1). As shown in Table 3.4 these rank in the middle range for the city as whole. In terms of socio-economic status on the Blisshen scale, the New Town ranks third of the seven areas studied, with a mean value of 44.5 (Table 3.3). Standard deviations of socio-economic scores in the five polling district aggregations constituting the New Town are fairly high, suggesting that the New Town population is more heterogeneous in regards to socio-economic level than residents of other areas.

Diversity is also apparent when describing the occupational and dwelling tenure categories of Table 3.5. Thirty-seven percent of those interviewed in New Town rent or own their home privately, compared to a city total of 42 percent. The occupational breakdown of New Town respondents also reflects somewhat that of Yellowknife as a whole, with 42.5 percent employed by governments (compared to a city total of 27 percent),



Photograph 3.11: View of the Central Business District from a bedrock knoll at the south end of New Town. Note variation in house type and condition.



Photograph 3.12: Many of the older houses on the fringe of the Central Business District are being demolished to accommodate commercial or higher density residential land uses.

and 37.5 percent found in the private service sector, a figure identical to the Yellowknife one. New Town residents have lived in Yellowknife for an average of six years, slightly less than the city-wide average of seven years. Fifty-seven percent have some post-secondary education, and 51 percent of the households interviewed had an annual income of less than \$15,000 in 1973.

#### Old Town - Latham Island

The Old Town - Latham Island area is, in many ways, the most varied and dynamic residential district in Yellowknife. In this area, some of the most luxurious houses in the city are juxtaposed with one-room shacks. The out-migration trend to the newer residential areas that occurred throughout the 1950s and 1960s has reversed; since 1971 some areas within the Old Town district have been the scene of private residential redevelopment.

Public utilities in the area are lacking: with the exception of the main thoroughfare in Old Town, no roads are paved; sewer and water lines end at the north end of the Central trailer courts. Sewage disposal is by means of individual septic tanks in 11 percent of the houses, and by chemical toilets or the traditional "honeybucket" in the remaining 89 percent.<sup>52</sup> Water is delivered on a weekly basis to most households.<sup>53</sup> It has been calculated that the cost per residential property in 1971 for installing sewer and water services would be \$7,350 to \$8,760.<sup>54</sup>

According to the Old Town Redevelopment Study done for the city, Latham Island should be preserved as a residential neighbourhood, while the entire Old Town should be used for industrial purposes. Regarding existing housing in the Old Town, the report recommended that "physically

obsolescent dwellings should be cleared within five or ten years--voluntarily or otherwise--and the land re-used for industrial purposes. . . . No improvement should be encouraged other than to maintain decent living conditions until eventual clearance."<sup>55</sup> It now appears, however, that this "bulldozer" approach to urban renewal will not take place to the extent recommended by the report. One reason for this is that people's perception of the Old Town - Latham Island area as a desirable place to live has changed. There has been an influx of upper-income residents, especially on to the Island. One fairly recent resident describes this by stating:

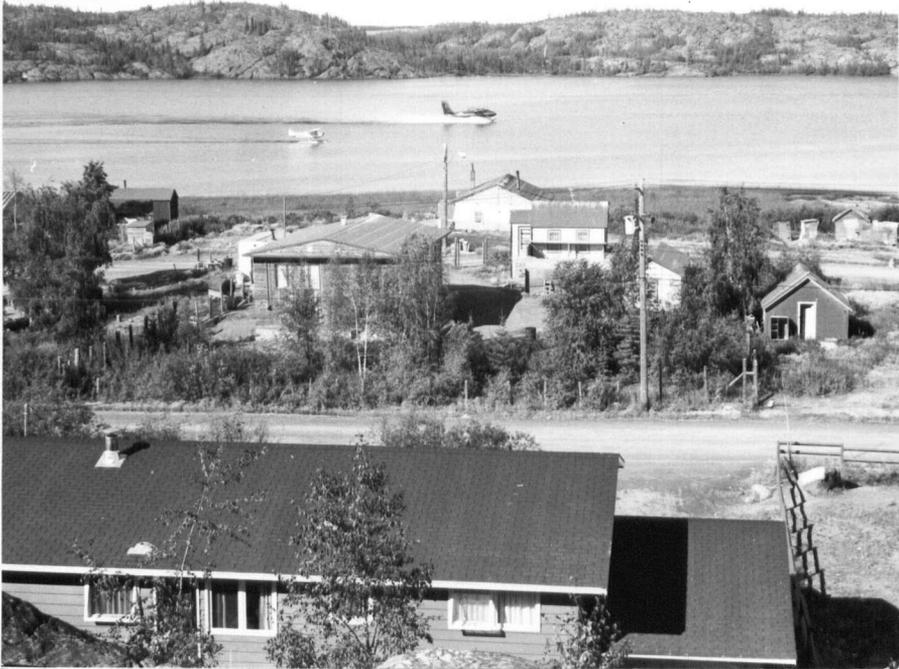
We moved down to Latham Island in the summer of 1971, and our friends thought we were crazy to live down in the slums with the Indians. But since then, everyone has jumped on the bandwagon and wanted to move here; fortunately there's not enough land for all of them.<sup>56</sup>

Indeed, Ridge in 1953 described two of the three residential districts found in Old Town - Latham Island at that time as slum areas.<sup>57</sup> At the south end of the Old Town, in an area known as the Flats, he portrayed the houses as being in extremely poor condition, home to labourers and seasonal workers. Better residences were found around the Old Town rock, labelled by Ridge as being in fair condition, but rapidly deteriorating. Ridge described the situation on Latham Island as the poorest in Yellowknife, conveying an impression of "poverty and appalling conditions of filth."<sup>58</sup> Dwellings were all shacks or log huts inhabited by Indians or Metis who desired the isolation permitted by the island.

Ridge's classification is still somewhat valid, but not to the extent that it was in the late 1960s. There were only fifteen houses built in the region between 1960 and 1970;<sup>59</sup> in the first four years of the subsequent decade that number has approximately tripled.<sup>60</sup> Most of

this recent construction has been on the southern portion of Latham Island (Photographs 3.13 and 3.14). At the north end of the island is Lot 500, a large block of Crown Land, known colloquially as Rainbow Valley. Unlike other areas, Lot 500 functions as an Indian reserve, containing about twenty prefabricated houses. Ten of these, built in 1958, are of the "512" (square feet) design common to many northern communities.<sup>61</sup> (See Photograph 3.15). The others are larger, recent additions to native housing stock (Photograph 3.16). Likewise, the Old Town can be divided into two residential sub-areas. Around the Old Town rock are small frame houses, often inhabited by those who run small businesses in Old Town. Some new, expensive residential construction is occurring. But in the larger sub-area, the Flats, no new housing is being built; most of the houses can be considered as shacks (Photographs 3.17 and 3.18) inhabited by white old-timers, young white transients seeking alternate lifestyles, and a low-income native population.

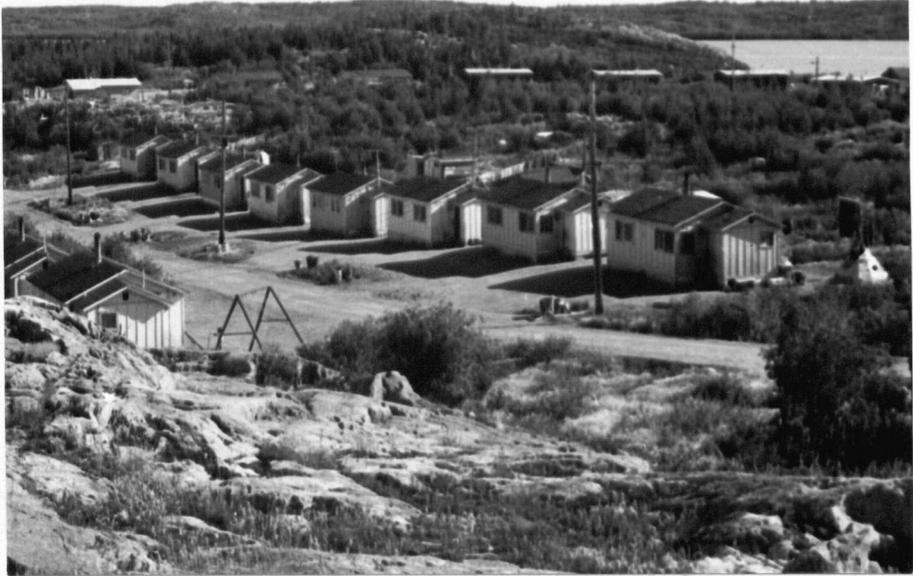
Of the 160 occupied houses in 1971 in Old Town - Latham Island, only 8 were deemed to be in "good" condition by the Old Town Redevelopment Study, and 73 were considered to be "fair to poor" or "poor".<sup>62</sup> Eighty percent of the houses on Latham Island and 75 percent in the Old Town were less than 750 square feet in size.<sup>63</sup> Hence, it is not surprising that assessed housing values are the lowest in the city, with an average of \$950 in the Flats/South Old Town polling district, and \$2,280 in North Old Town/Latham Island, excluding Lot 500 (Table 3.4). While both rank the lowest of the thirteen polling districts listed, it is interesting to note that the standard deviation of the assessed values is the lowest of the thirteen in the Flats/South Old Town polling district,



Photograph 3.13: Latham Island, looking west across Back Bay. Occupied housing stock in this photo includes one room shacks, a log house, and a large two storey frame dwelling.



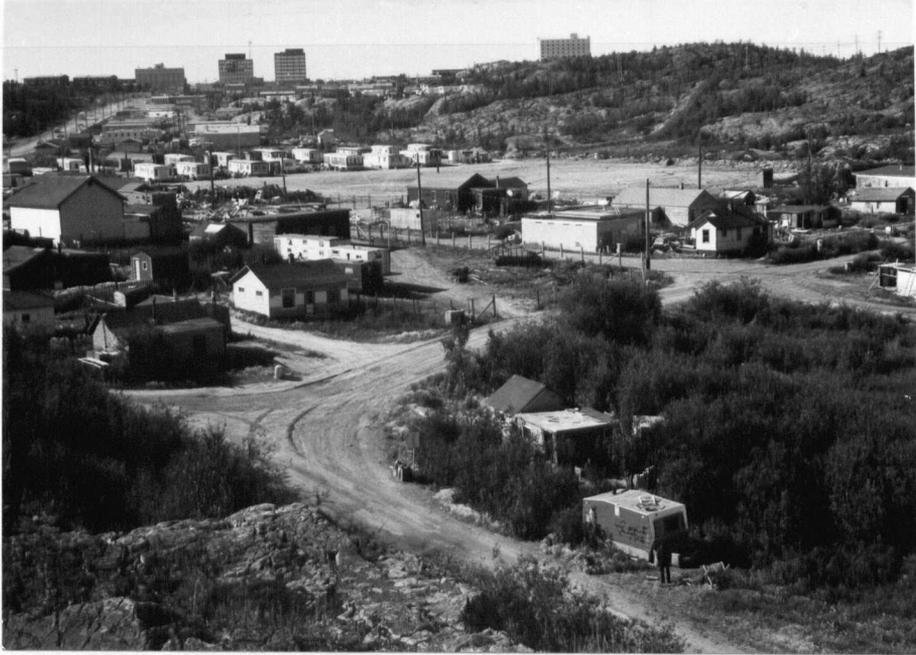
Photograph 3.14: Aerial view of northern Old Town and Latham Island.



Photograph 3.15: A view of "Rainbow Valley" (Lot 500) on northern Latham Island.



Photograph 3.16: More recent treaty Indian housing on Lot 500.



Photograph 3.17: Housing in the Peace River Flats area of Old Town, with New Town high rise buildings on the horizon. Between these areas lie the Central trailer courts. The trailer in the right foreground is occupied by three people; it was hauled there from the city dump.



Photograph 3.18: Willow Flats in the southeastern part of Old Town.

and the highest of the thirteen in the North Old Town/Latham Island polling district. House value, then, is uniformly low in the Flats, but much more variable in other areas. In addition, the change in the assessed value of residential buildings and land can help indicate where redevelopment is occurring. Assessment values for 1967<sup>64</sup> were compared to their 1973 equivalents for a sample of lots in the Flats, the Old Town, and Latham Island south of Lot 500. In the Flats, the mean assessed housing value for the sample in 1967 was \$1,050; this had decreased by 1973 to \$730. Meanwhile, the land on which these dwellings stood increased markedly from an assessed value of \$600 per lot to \$3,220 in 1973. A similar pattern appears in Old Town: mean assessed housing value decreased slightly from \$1,580 to \$1,330, while mean lot value rose from \$690 to \$4,250. Both these areas, then, can expect rapid changes in land use, housing quality, and, possibly, residential densities. The prediction of the 1971 Redevelopment Study has fulfilled itself: no major housing improvements were permitted pending a change in zoning, hence house value has declined. But land values have increased by 500 percent, partly in anticipation of the rezoning that will apparently not take place, at least in its original format. Assessed value of buildings sampled on Latham Island has increased from \$1,970 in 1967 to \$4,650 in 1973; the value of the lots on which they stand has also increased from \$620 in 1967 to a 1973 assessed average value of \$3,400.

In terms of socio-economic status, the overall mean Blfishen value of 37.3 for the Old Town - Latham Island polling districts is lowest of the seven residential areas examined (Table 3.3). For Polling District 90 (the Flats and south Old Town) the mean score was 34.6 and standard

deviation 8.9. Both figures rank lowest of the seventeen districts listed in Table 3.2. For the north Old Town/Latham Island district, mean status is relatively higher at 40.2, and its standard deviation is the highest of all polling districts, suggesting, as building value data did, a wide range in socio-economic status among the residents.<sup>65</sup>

From Table 3.5, it is evident that Old Town - Latham Island residents have lived in the area for almost eight years on average, and in Yellowknife itself for over seventeen years. Only fifteen percent (in effect, those respondents living on Lot 500) live in subsidized accommodation. Both education and income attainment are lower than the comparable figures for the city as a whole. Only nine percent are employed by the mining companies or the governments; the remainder are trappers, prospectors, employees in the service sector, or unemployed.

#### Other Residential Areas

The preceding seven residential areas were the ones in which all interviews were carried out. For several reasons, not the least of which were time and financial constraints, the Forrest Park subdivision, the extreme southern end of New Town, Giant townsite, and the Indian village of Detah were not intensively investigated. However, it will be useful to describe briefly these remaining areas to round out this discussion.

Detah is an exclusively native community three miles across the water, and twelve miles by road, from Yellowknife. The questionnaire was not administered to any of its 170 residents due to language problems, and an impression conveyed by some that Detah residents were both weary and wary of any southern investigators. Several visits were made to the village, however.<sup>66</sup> Situated on a bedrock peninsula, the community con-

sists of a small school, Roman Catholic church, nursing station, community hall, and about forty dwellings, ranging from government-supplied prefabricated houses to shacks and tents. The local economy is based on hunting, trapping, and fishing; many family incomes are supplemented by welfare payments. Although economically and socially tied into Yellowknife itself,<sup>67</sup> Detah appears to be a community that shows fewer signs of social disintegration than the native community in Yellowknife.<sup>68</sup> (Photo 3.19)

The Forrest Park subdivision, south of New Town, is presently under construction. It is designed to provide a mixture of housing types; in 1974, federally-owned row houses and some detached dwellings were completed (Photograph 3.20). Many of the serviced lots in the subdivision are currently occupied by mobile homes, which will probably be relocated if and when additional trailer space is available. Socio-economic status of present residents in Forrest Park is above average; with a mean score of 48.9 on the Blishen scale, it ranks fifth of the seventeen polling districts analyzed (Table 3.2). Mean assessed value of the completed single family houses and mobile homes in the subdivision approaches \$6,000, again fifth highest, behind the two School Draw, Matonabee, and south New Town polling districts (Figure 3.2 and Table 3.4).

The residential area at the Giant mine, two miles north of central Yellowknife, is somewhat smaller than that at Con, even though Giant employs twice as many men. The mine owns several houses in Yellowknife, mostly in northeastern New Town, which it rents to long term employees with families. There are only about 35 families living at the mine site; the remainder tend to be single employees living in bunkhouses or apartments. With a Blishen score of 39.3, socio-economic status of Giant



Photograph 3.19: Houses in the Dogrib community of Detah, three miles across Yellowknife Bay from the city.



Photograph 3.20: New residential construction in the Forrest Park subdivision.

residents is slightly lower than that at Con, suggesting that the administrative staff at Giant are more likely to live in town than those at Con. (Photograph 3.21).

In summary, Yellowknife can be considered as a community with discrete neighbourhoods, each containing fairly characteristic housing types and values, and whose residents demonstrate distinct social, economic, and demographic traits. Now that these residential area characteristics have been presented, the discussion can expand upon the less overt notions of social space that have been introduced earlier.



Photograph 3.21: Residential area at the Giant mine, with the mine and mill complex in the background.

TABLE 3.5

## CHARACTERISTICS OF INTERVIEW RESPONDENTS BY RESIDENTIAL AREA

RESIDENTIAL AREA	SAMPLE SIZE	LENGTH OF RESIDENCE CHARACTERISTICS				DWELLING TYPE AND TENURE								
		Mean Residence in City (Months)	Median Residence in City (Months)	Mean Residence in Neighborhood (Months)	Have Lived Elsewhere in City (Percent)	Dwelling Type (Percent)				Dwelling Tenure (Percent)				Total Percent Subsidized
						Detached House	Row House	Apartment	Mobile Home	Private Own	Subsidized Own	Private Rent	Subsidized Rent	
Central Trailer Cts.	25	47.0	43.5	17.9	72	0	0	0	100	64	0	16	20	20
Northland Trailers	30	51.9	39.8	17.4	57	0	0	0	100	57	17	13	13	30
School Draw	32	60.5	37.0	29.6	62	69	3	28	0	12	12	9	66	78
Con Townsite	29	112.8	58.5	67.5	55	45	0	27	27	0	14	0	86	100
Matonabee	30	31.5	13.0	17.9	33	43	53	4	0	10	3	0	87	90
New Town	41	73.4	39.2	32.9	76	76	2	22	0	27	5	10	58	63
Old Town/Latham Is.	34	206.9	126.0	92.3	76	100	0	0	0	47	0	35	15*	15
YELLOWKNIFE	221	85.6	41.7	40.3	62	51	8	12	29	30	7	12	50	57

\*One of the 34 residents interviewed in Old Town was squatting on city-owned land on Joliffe Island.

RESIDENTIAL AREA	SAMPLE SIZE	RESPONDENTS' OCCUPATIONAL, SOCIAL, ECONOMIC, DEMOGRAPHIC CHARACTERISTICS																		
		Occupation - Percent Employed With:												Educa- tion <sup>a</sup>	In- come <sup>b</sup>	Age	Race	Sex <sup>c</sup>	Marital Status	
		Mine		Government			Service		Other											
		General Adm./ Support	Admin./ Support	Profes- sional	D.N.D./ R.C.M.P.	Sec./ Cler.	Profes- sional	Tech./ Trade	Retail/ Cler.	Trap./ Prosp.	House- wife	Student	Retired	Unem- ployed	(%)	(%)	<35 Yrs. (\$)	White (\$)	(%)	(%)
Central Trailer Cts.	25	4.0	0.0	0.0	0.0	8.0	0.0	40.0	32.0	0.0	16.0	0.0	0.0	0.0	24	76	72	92	40	88
Northland Trailers	30	10.0	0.0	6.7	0.0	10.0	0.0	43.3	13.3	0.0	16.7	0.0	0.0	0.0	30	50	73	100	63	80
School Draw	32	0.0	3.1	25.0	0.0	25.0	9.4	6.3	6.3	0.0	18.8	3.1	3.1	0.0	53	39	53	91	56	81
Con Townsite	29	42.9	32.1	0.0	0.0	3.6	0.0	0.0	10.7	0.0	10.7	0.0	0.0	0.0	24	62	31	100	69	86
Matonabee	30	0.0	0.0	20.0	26.7	6.7	3.3	3.3	3.3	0.0	36.7	0.0	0.0	0.0	50	30	50	100	50	100
New Town	41	2.5	2.5	22.5	0.0	20.0	10.0	12.5	15.0	2.5	12.5	0.0	0.0	0.0	57	51	50	97	44	76
Old Town/Latham Is.	34	2.9	0.0	2.9	0.0	2.9	17.6	20.6	17.6	11.8	8.8	2.9	0.0	11.8	38	82	56	67	58	62
YELLOWKNIFE	221	8.2	5.0	11.9	3.7	11.4	6.4	17.4	13.7	2.3	16.9	0.9	0.5	1.8	41	55	54	92	54	80

<sup>a</sup>Percent with at least one year post-secondary education

<sup>b</sup>Percent households with less than \$15,000 income in 1973.

<sup>c</sup>Percent male, or male with spouse assisting.

Footnotes

<sup>1</sup>See, for example, J. W. Berry, "Psychological Research in the North," Anthropologica 13 (Nos. 1-2, 1971): 143-57.

<sup>2</sup>See, for example, Jack Ferguson, "Social Change in the Western Arctic," Social and Cultural Change in Canada, 2 vols., ed. W. E. Mann (Toronto: Copp Clark, 1970), 2: 27-50.

<sup>3</sup>For example, June Helm, "The Nature of Dogrib Socio-Territorial Groups," Man the Hunter, ed. Richard B. Lee and Irven DeVore (Chicago: Aldine, 1968), pp. 118-25.

<sup>4</sup>See, for example, John Wolforth, The Evolution and Economy of the Delta Community, Northern Science Research Group, Mackenzie Delta Research Project No. 11, (Ottawa: Dept. of Indian Affairs and Northern Development, 1971); also, John K. Stager, Old Crow, Y.T., and the Proposed Northern Gas Pipeline, Environmental-Social Program, Northern Pipelines, Report No. 74-21 (Ottawa: Information Canada, 1974).

<sup>5</sup>Jacob Fried, "White-Dominant Settlements in the Canadian Northwest Territories," Anthropologica 5 (No. 1, 1963): 57-67.

<sup>6</sup>Ibid., pp. 58-59.

<sup>7</sup>James R. Lotz, "The Squatters of Whitehorse: A Study of the Problems of New Northern Settlements," Arctic 18 (September 1965): 173-88. An additional study of squatters in the North was conducted by Richard G. Bucksar, "The Squatter on the Resource Frontier," Arctic 23 (September 1970): 201-204.

<sup>8</sup>G. F. Parsons, Arctic Suburb: A Look at the North's Newcomers, Mackenzie Delta Research Project No. 8, (Ottawa: Dept. of Indian Affairs and Northern Development, 1970), p. 8.

<sup>9</sup>Ibid., p. 10.

<sup>10</sup>Oswald Hall, "The Social Consequences of Uranium Mining," University of Toronto Quarterly 26 (January 1957): 226-43; Richard G. Bucksar, "Elliot Lake, Ontario: Problems of a Modern Boom Town," Journal of Geography 61 (March 1962): 119-25; Rex A. Lucas, Minetown, Milltown, Railtown (Toronto: University of Toronto Press, 1971); Ira M. Robinson, New Industrial Towns on Canada's Resource Frontier, Resource Paper No. 73, Dept. of Geography, University of Chicago, Chicago, 1962.

<sup>11</sup>Charles C. Hughes, "Observations on Community Change in the North: An Attempt at Summary," Anthropologica 5 (No. 1, 1963): 73.

<sup>12</sup>Robert E. Park, "The City? Suggestions for the Investigation of Human Behavior in the Urban Environment," The City, Robert E. Park and Ernest W. Burgess (Chicago: University of Chicago Press, 1967), p. 6.

<sup>13</sup>Louis Wirth, "Human Ecology," American Journal of Sociology 50 (May 1945): 484.

<sup>14</sup>Park, p. 40.

<sup>15</sup>Wirth, pp. 485-86.

<sup>16</sup>William M. Michelson, Man and His Urban Environment: A Sociological Approach (Reading: Addison-Wesley, 1970), pp. 11-12.

<sup>17</sup>Wirth, p. 487.

<sup>18</sup>Michelson, p. 11.

<sup>19</sup>Ibid., p. 17.

<sup>20</sup>Wirth, p. 488.

<sup>21</sup>Michelson, p. 19.

<sup>22</sup>Otis Dudley Duncan, "A Socio-Economic Index for all Occupations," Occupations and Social Status, ed. Albert J. Reiss (New York: Free Press, 1961), pp. 116-17.

<sup>23</sup>Bernard R. Blishen, "A Socio-Economic Index for Occupations in Canada," Canadian Review of Sociology and Anthropology 4 (February 1967): 41-53.

<sup>24</sup>Peter C. Pineo and John Porter, "Occupational Prestige in Canada," paper presented at Canadian Sociology and Anthropology Association, Sherbrooke, 11 June 1966, quoted in Blishen, "Index for Occupations," p. 42.

<sup>25</sup>Bernard R. Blishen, "The Construction and Use of an Occupational Class Scale," Canadian Journal of Economics and Political Science 24 (November 1958): 519-31.

<sup>26</sup>1974 Yellowknife City Directory, M&S Publications, Yellowknife, September 1974.

<sup>27</sup>The regression equation is  $y = 28.0 + 1.3x$ .

<sup>28</sup>The regression equation is  $y = 17.3 + 2.1x$ .

<sup>29</sup>The assistance of Mr. M. Smith, Territorial Lands Assessor, Dept. of Local Government, Government of the Northwest Territories, is gratefully acknowledged.

<sup>30</sup>The regression equation is  $y = -11.97 + .38x$ .

<sup>31</sup>Terence Lee, "Urban Neighbourhood as a Socio-Spatial Schema," Human Relations 21 (August 1968): 241.

<sup>32</sup>Anne Buttmer, "Social Space and the Planning of Residential Areas," Environment and Behavior 4 (September 1972): 284-84.

<sup>33</sup>Herbert J. Gans, The Levittowners: Ways of Life and Politics in a New Suburban Community (New York: Pantheon Books, 1967); and Lee, pp. 247-48.

<sup>34</sup>William G. A. Shaw, "Evaluation of Resource Towns: Planned and Unplanned" (M.A. thesis, University of Alberta, 1970), chap. VI.

<sup>35</sup>Hall, p. 229; Bucksar, "Elliot Lake," p. 120.

<sup>36</sup>Lyn Harrington, "Thompson, Manitoba--Suburbia in the Bush," Canadian Geographical Journal 81 (October, 1970): 154.

<sup>37</sup>Lee, p. 249.

<sup>38</sup>Ibid., p. 247-48.

<sup>39</sup>City of Yellowknife, The 1974 City Census.

<sup>40</sup>See Chapter II, p.19.

<sup>41</sup>See Chapter II, p.21.

<sup>42</sup>The value of mobile homes tends to depreciate with age.

<sup>43</sup>Interview with Mr. Peter Smith, Personnel Supervisor, Con Mine, Yellowknife, 23 August 1974.

<sup>44</sup>A typical three-bedroom house in the Rycon Camp may rent for \$40 per month to a long-term employee.

<sup>45</sup>Interview with Mr. Peter Smith, Personnel Supervisor, Con Mine, Yellowknife, 23 August 1974.

<sup>46</sup>F. E. Burnet, Chairman and Chief Executive Officer, Cominco Ltd., quoted in Yellowknife News of the North, 25 March 1975, p. 3.

<sup>47</sup>Interview with Mr. Peter Smith, Personnel Supervisor, Con Mines, Yellowknife, 23 August 1974.

<sup>48</sup>See Chapter V, p.116; and Chapter VI, p. 144.

<sup>49</sup>Cominco Ltd., Con Office, List of General Roll Employees on January 1st, 1974. Mean residence in the city of Con respondents is 113 months, illustrating the under-representation of "bunkhouse men" in the sample.

<sup>50</sup>F. Gerald Ridge, "General Principles for the Planning of Sub-Arctic Settlements" (Ph.d. dissertation, McGill University, 1953), pp. 417-18.

<sup>51</sup>It is interesting to note that 37 percent of those interviewed in Matonabee were "full-time" housewives, a proportion twice that of the area with the second highest percentage in this category, namely School Draw, with 19 percent. The reasons for this probably lie in the other columns in Table 3.5. Mean length of residence in the city is low; it is possible that the woman has either not found an acceptable job, or does not yet desire one. Moreover, a job may not be financially necessary to the household, since Matonabee incomes are among the highest in the city. In addition, the "average" Matonabee resident is both young and married, suggesting that a high proportion of pre-school children are present.

<sup>52</sup>Makale, Holloway and Associates Ltd., Old Town Redevelopment Study: City of Yellowknife (Edmonton, 1971), Table 7.

<sup>53</sup>Previous to a scare of arsenic pollution in the lake in January 1975, this service was provided only to those who paid for it; others simply retrieved their water from the bay.

<sup>54</sup>Makale, Holloway and Associates Ltd., Old Town Redevelopment Study, p. 15.

<sup>55</sup>Ibid., p. 21.

<sup>56</sup>Interview respondent living on Latham Island.

<sup>57</sup>Ridge, pp. 414-15.

<sup>58</sup>Ibid., p. 415.

<sup>59</sup>Makale, Holloway and Associates Ltd., Old Town Redevelopment Study, pp. 5-6.

<sup>60</sup>Estimate based upon assessment records, 1967 and 1973.

<sup>61</sup>Alex G. Gordon, Housing and the Social Environment: Northwest Territories and Greenland, A Comparison (Yellowknife: Government of the Northwest Territories, 1971), p. 40.

<sup>62</sup>Makale, Holloway and Associates Ltd., Old Town Redevelopment Study, Table 3, p. 8.

<sup>63</sup>Ibid., Table 5, p. 11.

<sup>64</sup>Assessment Records, Dept. of Local Government, Government of the Northwest Territories.

<sup>65</sup>Interestingly, both the lowest status occupation on the Blishen scale (hunters and trappers) and the highest status occupation (chemical engineers) were represented in the Latham Island polling district sample.

<sup>66</sup>Often, for the purpose of buying caribou meat and whitefish, and, on one occasion, upon invitation to a local drum dance.

<sup>67</sup>The two trading posts in the village closed in 1928. See Peter J. Usher, Fur Trade Posts of the Northwest Territories, 1870 - 1970, Northern Science Research Group Report 71-4 (Ottawa: Information Canada, 1971), pp. 52-53.

<sup>68</sup>This impression is supported by two social workers employed by the Department of Social Development, Government of the Northwest Territories.

## CHAPTER IV

### ANALYSIS OF SOCIAL SPACE

It appears from the information in the previous chapter that Yellowknife's residential areas have evolved such that segregation, based on a variety of socio-economic variables, has been maintained. No doubt, processes that are at work in southern cities to encourage segregation are applicable to the Yellowknife situation. For example, the Old Town area may be analogous to old, decaying inner city neighbourhoods that house low income and minority groups. Similarly, it is the upper income residents in Yellowknife that have captured physically desirable sites, along the lakefronts in Matonabee and School Draw. Isolating barriers--the element of the city image termed by Lynch as "edges"<sup>1</sup>--are also in evidence: bedrock knolls block the view of New Town and the Flats from School Draw residents, and a hill crest separates the upper-income Latham Island inhabitants from the Indians who live a couple of hundred feet away on Lot 500. Among other areas, these barriers often take the form of simple distance, resulting from the multi-nodal nature of the city's evolution, and from the sporadic suitability of land upon which construction is feasible.<sup>2</sup>

As shown in Table 3.5, segregation is reflected in such "traditional" variables as race, income, and education. But occupation--who one works for--is an extremely important criterion in determining residential site in the city. This was mentioned by several interview respondents.

For example:

The government brought the ways of the south with them; now the town is divided up into job segregation areas.

. . . they're putting people who work together together. It's activity, not racial, segregation.

Con and Giant townsites, then, are overwhelmingly dominated by mine employees. The majority of School Draw and Matonabee residents work for the federal or territorial governments. Northland and Central trailer court residents are found to be employed in the non-government service sector. Only in New Town and in Old Town - Latham Island does some degree of occupational diversity occur.

There are several methods available to the geographer for the examination of the form and importance of these neighbourhood units as they are perceived by Yellowknife residents. The aim is to find indicators of social space, which can assist in discovering how individuals and groups perceive and organize their environment. It is probable that only parts of the total Yellowknife environment are experienced by the resident. Sonnenfeld terms this the resident's "operational environment."<sup>3</sup> At an even smaller level, certain parts of this operational environment elicit a behavioural response, thus forming the behavioural environment.

Perhaps the most frequently used approach for the investigation of social space is through the construction by the respondent of a mental map of his community, which highlights his perception of the actual geographic environment.<sup>4</sup> Cognitive mapping is made practicable by the fact that degrees of conformity permit the recognition of common or group images, even though each person's image may be unique. However, cognitive mapping was not carried out in the interview; it was felt that this lengthy exercise, requiring the drawing of a sketch map, would try the

patience of many respondents, and depart from the more "practical" thrust of the interview schedule. Instead, three simpler questions designed to investigate social space notions were incorporated into the questionnaire; these will presently be discussed.

### Patterns of Territorial Identification

Lee's study of the neighbourhood as a socio-spatial schema--a composite of physical objects, social relations, and space--has been outlined in Chapter III. For large cities in England, he found that "neighbourhood was a really salient experience; not a vague, shifting one, but something that could be quickly and easily acknowledged and fairly readily described."<sup>5</sup> Can the same be said for Yellowknife, a town whose total population is about the same as that of a "southern" neighbourhood?

To explore this level of the behavioural environment, the question "where in town do you feel really at home?" was posed to respondents. Responses fell into three categories: "in this area", "anywhere/nowhere in particular", or "other". Relatively few (15 percent) answered in the third category; these included such responses as "just in my house", or "at work", or "in the bars". Another 23 percent answered in the second category; for these, apparently the same behavioural response is elicited from all areas that constitute Yellowknife's geographical environment. The remaining 136 respondents--62 percent of those interviewed--expressed a neighbourhood affinity, and had a sufficiently strong mental image of people and space that they could circumscribe on a map the area which they considered their neighbourhood, when requested to do so by an interviewer.

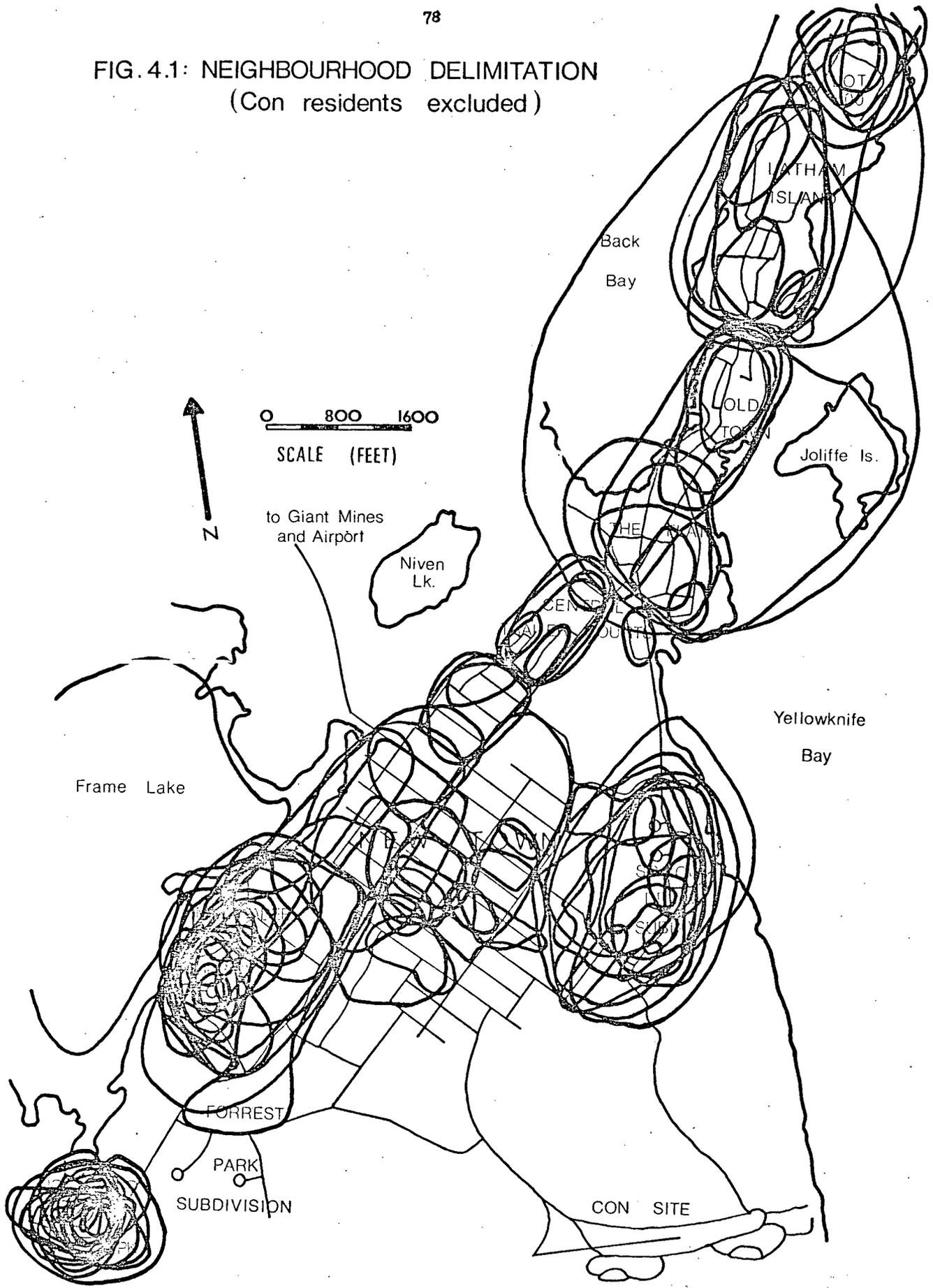
When analyzed at the sub-community level, a considerable range

emerged in the proportion of interviewees feeling at home in their neighbourhood. In the Central trailer courts, only 28 percent expressed a neighbourhood affinity, while, in the Old Town - Latham Island area, the proportion was as high as 82 percent. Between these two extremes, it was found that 44 percent of New Town respondents could delimit a home area, and in Northland Trailer Park 60 percent did so. Percentages for School Draw, Matonabee, and Con were 63 percent, 70 percent, and 76 percent respectively. There seems, in this progression, to be a relationship between the strength of a neighbourhood image and the clarity and homogeneity of its physical and social identity.

Figure 4.1 aggregates the neighbourhood delimitations of the 136 respondents on to one map.<sup>6</sup> Several discernible neighbourhood concentrations emerge, suggesting a strong degree of similarity in neighbourhood perception. Four sub-areas in Old Town - Latham Island are evident: the Flats, the Old Town itself, south Latham Island, and Lot 500 are definable; a few residents outlined their neighbourhood to include two or three of these sub-areas. A marked boundary exists between the Old and New Towns, School Draw and New Town, and School Draw and Old Town. In Northland, School Draw, and Matonabee, neighbourhood sizes range from that of a block up to the area of the subdivision itself; again, little overlap occurs with contiguous residential areas. Only in New Town is there an apparent diversity to the neighbourhood outlines.<sup>7</sup>

Several comments volunteered by respondents concerning their neighbourhood, and neighbourhood feeling, reinforce the idea that there are consistently definable areas within the city that have familiarity and meaning for the people who live in them. Some exert a negative tone:

FIG. 4.1: NEIGHBOURHOOD DELIMITATION  
(Con residents excluded)



We pretty well have to have a neighbourhood here, we're so crowded. (Resident of Matonabee row housing unit.)

We're a real group here--we're a community of packed sardines in a can known as Northland Trailer Park. But we have lots of things in common. (Northland resident.)

Others genuinely appreciated their neighbourhood:

Out here, we're far away from downtown life; I'm always glad to come back after shopping. (Con resident.)

Con is quite a neighbourhood. There's a solid core of oldtimers with families here; I don't recognize anybody in town anymore. (Con resident.)

If I had a chance to live uptown I wouldn't take it . . . I'd rather live here--this is a good area. (Oldtimer living in the Flats.)

I don't have anything to do with those bastards in New Town. Sure, this is the worst housing in Canada, but the people love it here--this is the North! (Old Town resident.)

Still others do not identify with their present residential area, and wish to move:

I was born on Latham Island, and I want to move back there. I don't feel right with all these government people, just as you probably wouldn't feel right living on Lot 500. (Indian employed by the government living in a subsidized School Draw apartment.)

Hence, behavioural environments that evoke a certain intimacy for the residents involved can be defined in a city the size of Yellowknife. There is a neighbourhood "mood" to which town dwellers are variously sensitized, and which they can articulate and bound on a map. Moreover, the degree of accordance in map delimitation is impressive. The traditional concept of the neighbourhood as a collectively acknowledged geographical area, with definable boundaries, appears to be recognized. This is not meant to imply that Lee's more elaborate concept of the neighbourhood as a socio-spatial schema, often with limited relationship to physical land use, does not apply; rather, it suggests that the components of the schema--physical objects, social relations, and space, all

synthesized in the mind, are quite invariable within any one area in Yellowknife, but are also highly diversified between different areas. The population perceives and distinguishes these areas consistently; the resulting spatial pattern (ie. Figure 4.1) therefore is also a highly ordered one.

### Patterns of Spatial Interaction

Even though distinct patterns of identification with territory at the neighbourhood level are found in Yellowknife, it would be naive to suggest that social interaction takes place almost entirely within the neighbourhood as perceived. To measure the degree and direction of social interaction among the various socio-spatial groups, areal distributions of social contact points were plotted. This permitted a check to be made of consistency between spatial segregation and contact patterns among the social groups.

Considerable research dealing with the analysis of social networks, activity patterns, and time diaries, has been conducted to investigate the social processes that manifest themselves into a spatial format. For example, Chapin and Logan emphasized time patterns and their relation to the spatial structure of American metropolitan areas.<sup>8</sup> A less ambitious but much more comprehensible study of interaction patterns among various social groups was completed in a small Louisiana city.<sup>9</sup> Contact patterns of Cajuns, Blacks, and Newcomers to the city revealed very little reciprocal contact when plotted on a grid map of the city.

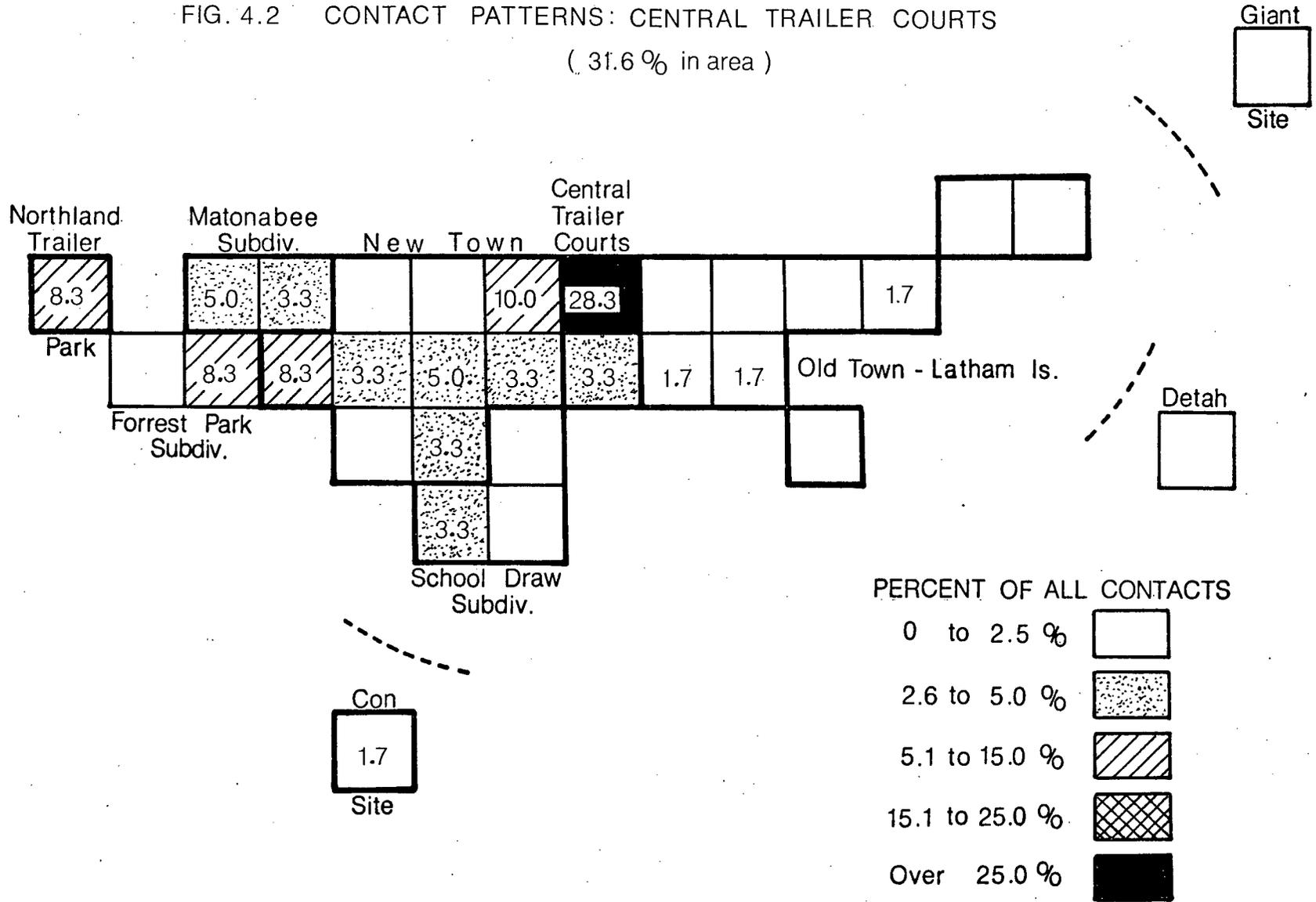
In the analysis of interaction patterns in Yellowknife, Western's technique has been slightly modified. Instead of basing the interaction patterns upon the social group (Cajuns, Blacks, etc.) to which the res-

pondent belongs, the residential area where the interviewee lives has been used. Although the two have been shown to be highly related in Yellowknife, the use of residential, as opposed to social, groups may have the effect of diluting what might otherwise be even more distinctive patterns.

To trace the contact patterns of the residents of each of the seven areas under study, a grid containing 31 cells was laid over a map of Yellowknife upon which social contact points had been plotted. The grid was superimposed in a northeast-southwest direction to conform to the New Town street pattern; each residential area is represented on the grid by an area ranging from one to nine cells. The social contact points were derived from answers to question fifteen on the interview schedule: "On this map of Yellowknife, could you tell me where you have three really good friends living?". For each residential district, the number of contacts that fell within each grid cell was summed and expressed as a percentage of the total number. In Figures 4.2 to 4.8, the percentages on the grid generally indicate a high degree of social interaction within the respondents' home area, and fewer contacts with those living in other residential districts. There are also higher contacts with other similar social groups in the town. Thus the interaction maps are neatly explained by the powerful factor of proximity and a weaker factor of distant but similar social groups.

The two squares representing the Central trailer courts contain 31.6 percent of the contacts of their residents. An additional 8.3 percent of all contacts are found in Northland, and 16.6 percent more are in Forrest Park - south New Town area where much of the present housing stock is in the form of mobile homes. Thus, approximately half of the

FIG. 4.2 CONTACT PATTERNS: CENTRAL TRAILER COURTS  
( 31.6 % in area )



contacts of Central trailer court residents are with people who also live in mobile homes, even though mobile homes constitute under 20 percent of the estimated 2,500 housing units in Yellowknife.<sup>10</sup> The bulk of remaining contacts are found in proximate areas of New Town; little interaction takes place with residents of School Draw, Old Town - Latham Island, and Con and Giant townsites.

A similar picture emerges when the contact patterns of Northland Trailer Park residents are analyzed, although they appear to be better linked to other groups than their counterparts in the Central trailer courts (Figure 4.3). Only 24 percent of all contacts are with residents of Old Town - Latham Island, School Draw, Matonabee, Con and Giant. Within Northland itself are 24.1 percent of the contacts, and another 10 percent are with residents of the Central trailer courts. Most of the remaining contacts are found in central and southern New Town.

Almost 30 percent of School Draw resident contacts are localized within the subdivision (Figure 4.4). Interaction with mine site residents and those living anywhere north of the central part of New Town is low, constituting less than 20 percent of all contacts. Most of the remaining contacts are with those living in the newer residential areas west of School Draw.

The activity patterns of Con townsite households are among the most localized in the city (Figure 4.5). It appears that miners socialize with other miners: over half of all contacts are found at the two mine sites. The remainder are scattered thinly over the central and southern areas of the city; from personal observation, many of these occur in areas where some of the housing stock is owned by the mining companies.

FIG. 4.3 CONTACT PATTERNS: NORTHLAND TRAILER PARK

( 24.1 % in area )

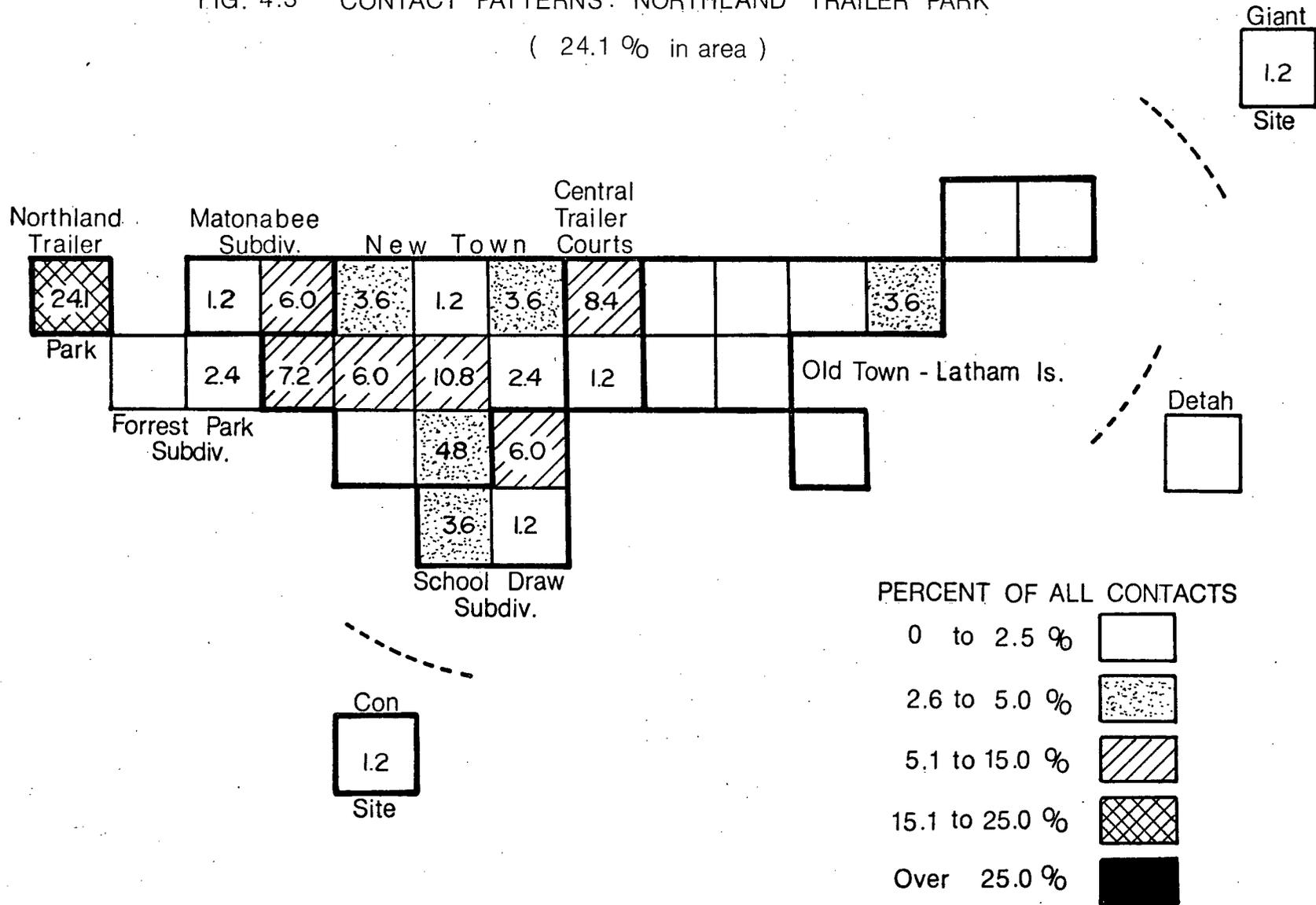
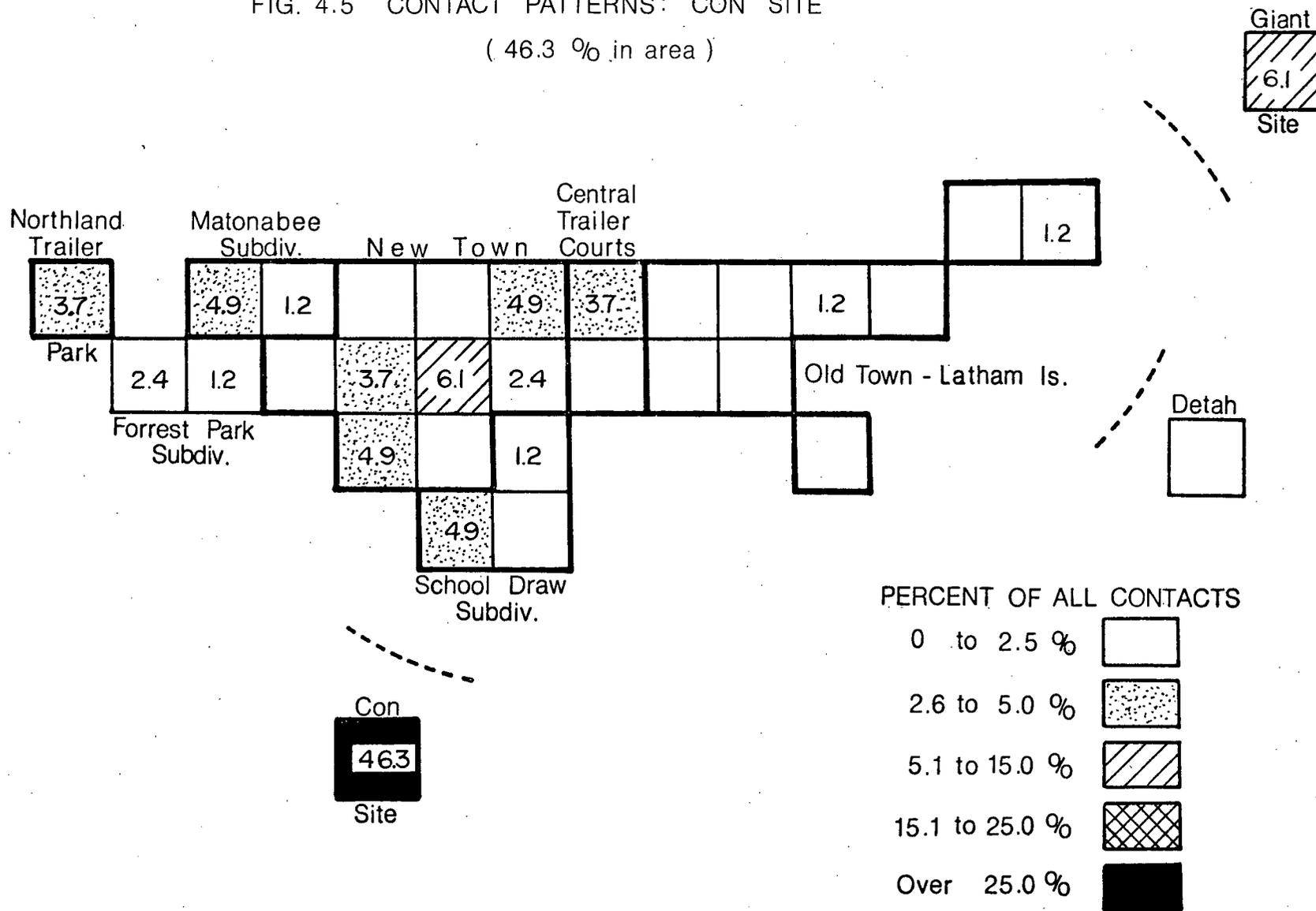




FIG. 4.5 CONTACT PATTERNS: CON SITE  
( 46.3 % in area )



Residents of Matonabee subdivision, most of whom are recent arrivals to the city, have 45 percent of their social contacts within the subdivision itself (Figure 4.6). Interaction is high with the proximate, newer sections of New Town. Again, Matonabee households know very few people in the mine townsites, the trailer courts, or the Old Town area.

The largest residential group in Yellowknife, the New Town residents, have 62.7 percent of their contacts in the New Town area. From Figure 4.7, a discernible boundary appears around New Town: very little interaction occurs with School Draw, Con, Giant, Central trailer court, and Old Town residents. Some contact takes place between New Town households and Northland, Matonabee and the upper income area of Latham Island.

Finally, Figure 4.8 shows the contact patterns of Old Town - Latham Island residents. Due to the heterogeneous nature of the population, interpretation is difficult. Within the Old Town - Latham Island area itself (including the Indian village of Detah) occur 61.3 percent of all contacts; much of this is accounted for by the Indian respondents of Lot 500, whose contacts are extremely localized. The rest of the population is better integrated into the city's networks; a moderate degree of interaction takes place with Northland and central New Town residents.

Figure 4.9 and Table 4.1 are attempts to summarize and interrelate the contact patterns that appear in Figures 4.2 to 4.8. For any grid cell in Figure 4.9, any residential group with over six percent<sup>11</sup> of their contacts found within the cell is represented. For example, there are seven cells which each contain over six percent of all contacts of Northland residents--Northland itself, one cell in Matonabee, School Draw, and the Central trailer courts, and three cells in New Town. Table 4.1 presents this interaction data in matrix form, at the same time ac-

FIG. 4.6 CONTACT PATTERNS: MATONABEE SUBDIVISION  
( 45.1 % in area )

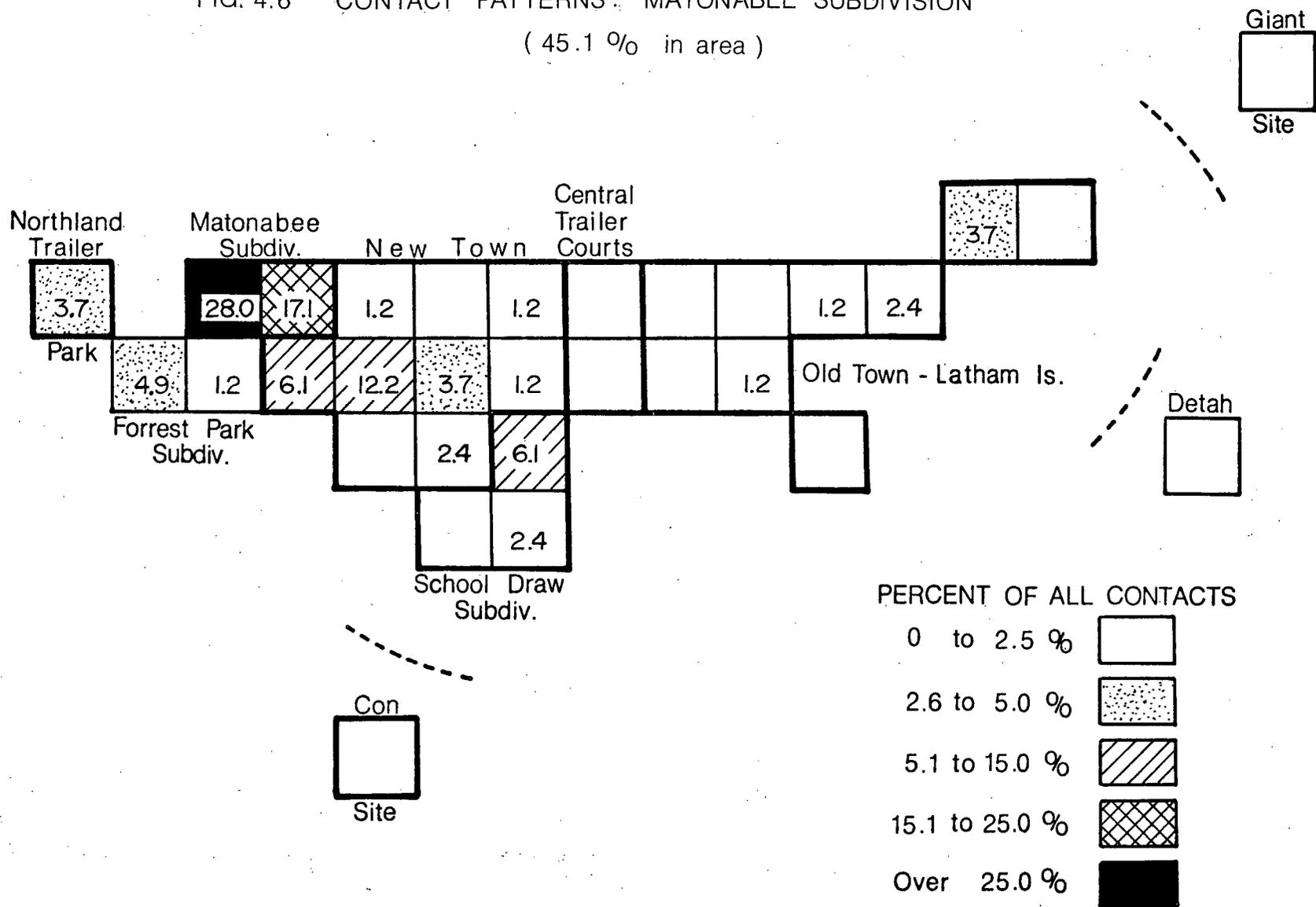


FIG. 4.7 CONTACT PATTERNS: NEW TOWN  
(62.7 % in area)

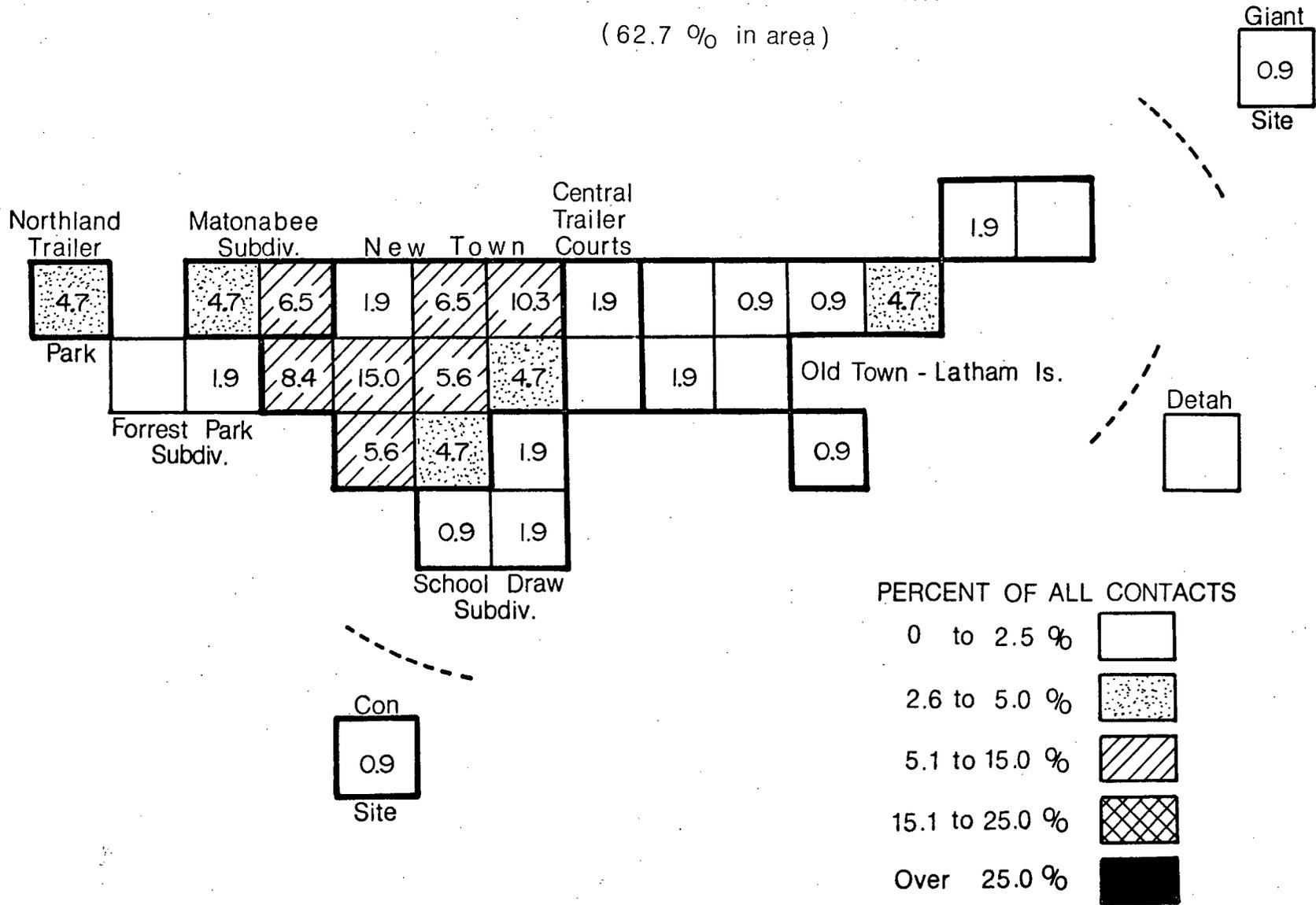
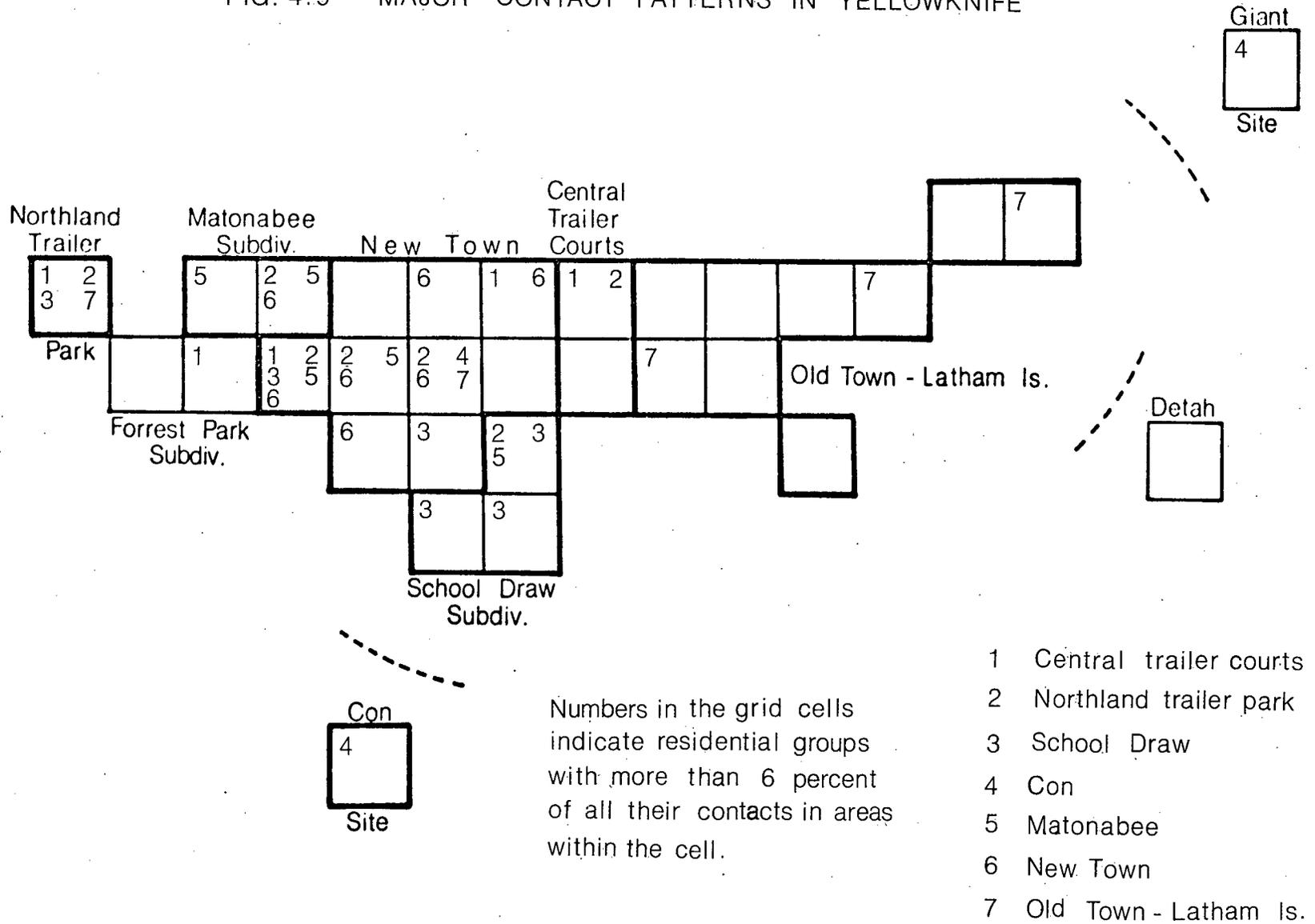




FIG. 4.9 MAJOR CONTACT PATTERNS IN YELLOWKNIFE



counting for the unequal population totals in each residential area. The interaction index was calculated in the following manner. The number of contacts from each residential area to the others is given as a percentage of the total contacts from this origin region. The estimated 1974 population of each residential area is also expressed as a percentage of the total Yellowknife population.<sup>12</sup> These two percentages were compared (the former was divided by the latter) and the number deduced, the interaction index, demonstrates the relative degree of social contact between any two areas. Again using Northland as an example, 9.6 percent of all Northland contacts were to the Central trailer courts, which contain 4.8 percent of Yellowknife's population. The interaction index is therefore 2.0, or twice as many as might be expected on the basis of pure population figures. Only 3.6 percent of Northland contacts were with the 11 percent of Yellowknife's population that lives in Old Town - Latham Island; the interaction index is only 0.33.

Some general conclusions can be drawn from Figure 4.9 and Table 4.11 concerning social contact patterns on a city-wide basis. The mine townsites, and Old Town - Latham Island, immediately stand out as neighbourhoods in which contacts are most localized within the area. Interaction between the residents of the two trailer courts is fairly strong, and both have a moderate degree of contact with New Town residents. In summary, it appears that propinquity does influence friendship at the neighbourhood level, but no doubt interaction within the neighbourhood is also due to socio-economic homogeneity. Contacts outside the neighbourhood are not generally governed by propinquity, as witnessed by strong social interaction between the two mine townsites and between the two trailer courts, and a low level of social contact among more proximate neighbour-

hoods.

TABLE 4.1  
INDEX OF INTERACTION AMONG YELLOWKNIFE  
NEIGHBOURHOODS

Area of Contact Origin	Area of Contact Destination						
	Central T. Cts.	North- land	School Draw	Con Site	Maton- abee	New Town	Old Town- Latham Is.
Central Trailer Courts	6.58	1.00	0.19	0.35	0.85	0.93	0.46
Northland	2.00	2.90	0.63	0.24	0.73	1.13	0.33
School Draw	0.23	0.65	1.70	0.67	0.56	0.97	1.00
Con Townsite	0.77	0.45	0.35	9.45	0.62	0.62	0.22
Matonabee	0.00	0.45	0.49	0.00	4.60	0.79	0.77
New Town	0.40	0.56	0.27	0.18	1.14	1.76	1.02
Old Town - Latham Island	0.21	0.86	0.35	0.00	0.32	0.63	5.57

#### Awareness of Yellowknife Landmarks

Elements of the Yellowknife environment are behaviourally significant to certain groups. A feeling of "at-homeness" is elicited by the area surrounding the dwellings of a majority of interviewees. According to Sonnenfeld,<sup>13</sup> there exists another level, the perceptual environment, which is that portion of the environment of which a person is aware. This awareness often is derived from the individual's past learning and experience; it is not necessarily behaviourally significant.

To measure place awareness of different parts of Yellowknife, eight photographs were shown to respondents, who were then asked to identify

them.<sup>14</sup> In general, respondents' ability to identify these places was greater than expected: six of the eight photographs were recognized by over 75 percent of those interviewed; detailed results appear in Table 4.2. The higher the overall percentage, the less discernible were any inter-neighbourhood variations in the proportion of respondents who could recognize them.

A photograph of the single men's bunkhouses at Con was recognized by 61 percent of the interviewees (Photograph 4.1). Not surprisingly, all but one respondent at Con were able to identify it, while less than half of those living in Matonabee and the two trailer courts were aware of what or where the structures were.

A panorama of the School Draw subdivision (Photograph 4.2) was discerned as such by 79 percent of respondents. Central trailer court and School Draw residents were most able to identify the photograph, while Northland, New Town, and Con residents did not do as well.

Photograph 4.3 was correctly identified as a street in Northland Trailer Park by 97 percent of Northland residents and 92 percent of Central trailer court respondents. Others, especially those at Con and in Old Town - Latham Island, had problems discerning which trailer park it was. Those that could tell were able to recognize it on the basis of the paved road, lack of overhead wiring, and the curved layout of the trailers.

The faded pastel shades of the older houses on Lot 500 (Photograph 4.4) has given the area the name of "Rainbow Valley", also known to some as "Squaw Valley" or "Indian Row". Apparently the area is well known to Yellowknifers, as nine of every ten respondents recognized it. Percentages ranged from 80 percent in the Central trailer courts to 97 percent in the Old Town - Latham Island area itself. Although the area may be



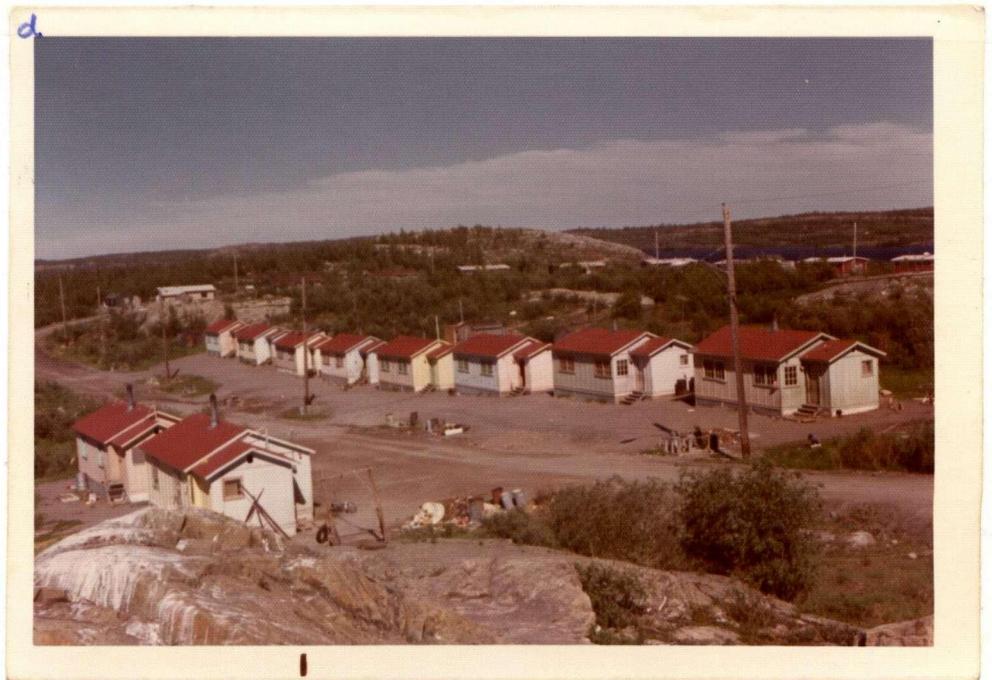
Photograph 4.1: Bunkhouses for single men at Con.



Photograph 4.2: School Draw subdivision.



Photograph 4.3: Northland Trailer Park.



Photograph 4.4: Lot 500.

TABLE 4.2

## PLACE AWARENESS BY RESIDENTIAL AREA

Area	Percent Identifying Photograph							
	Con Bunk- Houses (4.1)	School Draw (4.2)	North- land (4.3)	"Rainbow Valley" (4.4)	Forrest Pk Church (4.5)	Commun. Centre (4.6)	Bridge (4.7)	Fire Hall/ Library (4.8)
Central Trailers	36%	92%	92%	80%	92%	68%	88%	84%
Northland	43	70	97	90	87	57	93	77
School Draw	62	88	78	94	84	66	81	88
Con	97	75	64	86	75	36	86	64
Matonabee	49	80	87	83	77	40	93	70
New Town	68	73	85	93	90	61	90	78
Old Town/Latham Is.	68	76	62	97	85	88	94	82
Yellowknife	61	79	80	90	84	60	90	78
Range in correct responses	61	22	35	17	17	52	13	24

generally known to most, it is not visited frequently; one respondent expressed this impression succinctly:

That's Rainbow Valley--generally unknown to the Yellowknife public, at least unknown to their minds. (Northland housewife.)

And another:

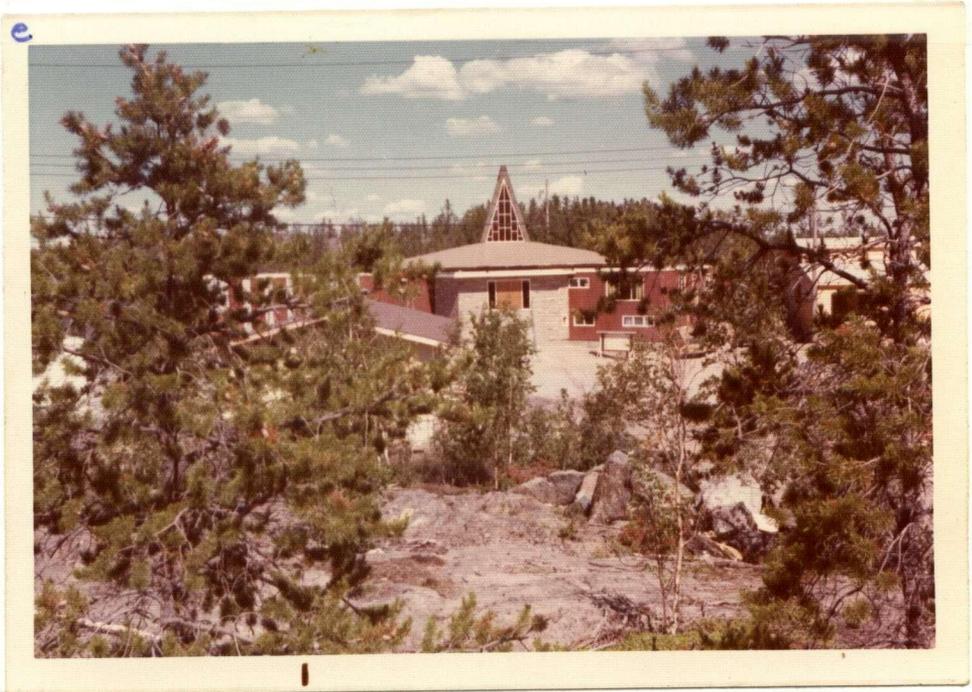
We go down there once or twice a year on our Sunday drive to let them know we still remember they exist. (New Town respondent.)

The new Seventh Day Adventist Church in the Forrest Park subdivision (Photograph 4.5) was identified by 84 percent of the 220 respondents. The variation by area of correct responses was low: 75 percent of those at Con recognized the church, and 92 percent of Central trailer court respondents were able to name or locate it.

On the other hand, the Latham Island Community Centre (Photograph 4.6) was identified by only 60 percent. "Oh, it's not very often I go down there" was a typical reply when the respondent was informed of its correct identity. Con, Matonabee, and Northland residents were least able to recognize it, while 88 percent of respondents in Old Town - Latham Island could do so.

Photograph 4.7, the bridge over the Yellowknife River about four miles from the city, was identified by 90 percent of respondents. The range among the seven neighbourhoods in the proportion answering correctly was a mere 13 percent; 94 percent of Old Town residents properly identified the bridge, while 81 percent of School Draw respondents labelled it correctly.

The old Fire Hall, presently the Public Library, is located along Franklin Avenue (the major north-south thoroughfare) at the north end of New Town. Photograph 4.8 was recognized by 78 percent of those interviewed. Sixty-four percent of Con residents identified the building



Photograph 4.5: The Seventh Day Adventist Church in Forrest Park.



Photograph 4.6: The Latham Island Community Centre.



Photograph 4.7: The Yellowknife River Bridge.



Photograph 4.8: The Public Library, formerly the Fire Hall, in northern New Town.

correctly, while 88 percent of School Draw residents were able to do so.

Some general insights concerning place awareness in Yellowknife can be made when analyzing Table 4.2 in its entirety. It appears that the photographs depicting newer structures (the church, the trailers in Northland, and the School Draw subdivision) tend to be recognized more readily by residents of the newer residential areas (the trailer courts, Matonabee and School Draw). These respondents have lived in Yellowknife for a shorter length of time than their counterparts in New Town, Old Town, and Con.<sup>15</sup> Similarly, the photographs of the older buildings and areas--the bunkhouses, the community centre, the bridge, Rainbow Valley, and the fire hall--are more likely to be recognized by longer term residents. Of course, much of this variation may be due to the fact that the older structures tend to be found in the older parts of town, and are therefore more likely to be recognized by residents of these areas.

Con townsite residents, who have lived in Yellowknife longer than residents of all other areas except Old Town - Latham Island, were often least able to recognize the photographs. On all but one of the photos--that of the Con bunkhouses--they "scored" lower than the city average. This reinforces the notion that Con is a socially isolated, but perhaps also a cohesive and self-sufficient, neighbourhood. In contrast, the photographs taken at Con and Latham Island were by far the most difficult for respondents to identify, suggesting, as the interaction pattern data did, that these areas are on the periphery of the mental image of the community held by most residents.

### Conclusion

The idea of social space has been used as a framework for a more

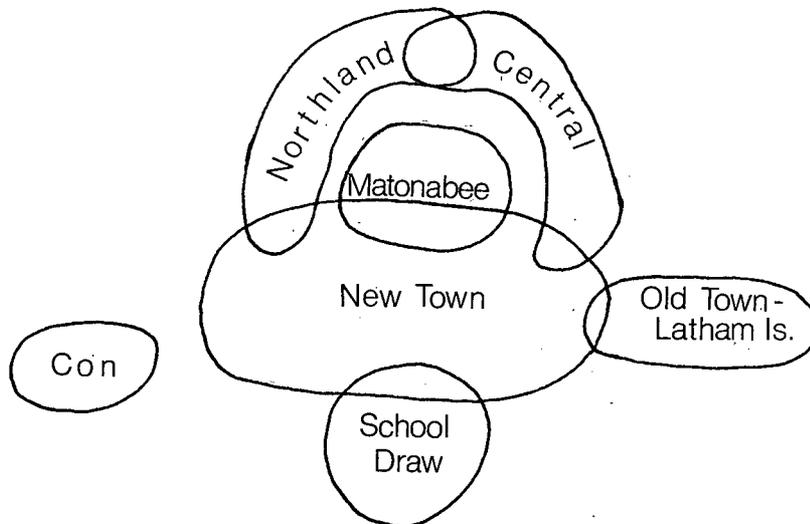
complete understanding of environmental experience. That the town is differentiated cognitively by most people is revealed through the patterns of association among the territorial, interaction, and image characteristics of people who live in Yellowknife's residential districts. Most residents are able to specify a home neighbourhood, which is usually defined by simple land-use types. Yet neighbourhoods differ in the degree of social significance they hold for those who live in them, and interaction patterns show that some are better defined than others. In Con and in Old Town - Latham Island, a strong sense of identity with local places exists and close associations are maintained among neighbourhood residents. Not surprisingly, these two areas have the highest proportion of respondents who express a neighbourhood feeling. On the other hand, those neighbourhoods that are less socially isolated tend to be linked with other areas whose residents demonstrate similar socio-economic, occupational, and housing characteristics, as suggested by interaction patterns between the two trailer courts, and, to a lesser extent, among the newer subdivisions of School Draw, Matonabee, Forrest Park, and southern New Town.

A simple Venn diagram, based on socio-economic status, perceived neighbourhood, interaction patterns, and place awareness, schematically summarizes relationships among residential groups in Yellowknife (Figure 4.10). It exposes the roles of proximity and networks of socially homogeneous groups as critical variables in defining the town's social space. The New Town, mainly because of its size, location, and residential diversity, acts as a central hub; only the Con townsite is totally isolated.

How successful have these residential developments in Yellowknife been in accommodating the needs and values of their residents, so that

an "ecological harmony between people and milieu"<sup>16</sup> emerges? A clue to the link between objective social space, as defined by planners through standards for the design of the physical environment, and subjective social space, as viewed by the residents, is "satisfaction", as revealed through notions of liveability. Attention will now be turned to these issues of quality of life.

FIG.4.10: VENN DIAGRAM OF RESIDENTIAL RELATIONSHIPS



Footnotes

<sup>1</sup>Kevin Lynch, The Image of the City (Cambridge: M.I.T. Press, 1960), pp. 62-65.

<sup>2</sup>Permafrost, muskeg, granite hills, lakes, sewage lagoons, and mine tailings ponds limit construction and therefore indirectly encourage discrete residential areas.

<sup>3</sup>Joseph Sonnenfeld, reported in Thomas F. Saarinen, "Perception of the Environment," Association of American Geographers Resource Paper No. 5, 1969, pp. 5-6.

<sup>4</sup>Examples are numerous, including Roger M. Downs, "Geographic Space Perception," Progress in Geography 2 (1970): 65-108; Peter R. Gould, "On Mental Maps," Michigan Inter-University Community of Mathematical Geographers, Discussion Paper No. 9, Ann Arbor, 1966; R. J. Johnston, "Mental Maps of the City: suburban preference patterns," Environment and Planning 3 (1971): 63-71; Saarinen, "Perception of the Environment"; D. C. D. Pocock, "City of the Mind: A Review of Mental Maps of Urban Areas," Scottish Geographical Magazine 88 (September 1972): 115-24; Florence C. Ladd, "Black Youths View their Environment: Neighborhood Maps," Environment and Behavior 2 (June 1970): 74-99.

<sup>5</sup>T. Lee, "Psychology and Living Space," Transactions of the Bartlett Society 2 (1963-1964): 16.

<sup>6</sup>The map used in the interview for questions 10 and 15 appears in the appendix. It was chosen because it was readily available, easy for the respondent to interpret, and cost free.

<sup>7</sup>Unfortunately, the map used did not include the Con townsite region; instead of delineating their neighbourhood on a map, the Con respondents who expressed a neighbourhood affinity (76 percent) were asked to verbally describe its limits. Nineteen of the twenty-two respondents who "felt at home" in the area defined it as the entire Con Townsite, the other three mentioned their particular sub-area: the Con trailers, the Lower Camp, or the Rycon Camp.

<sup>8</sup>F. Stuart Chapin, Jr., and Thomas H. Logan, "Patterns of Time and Space Use," ed. H. S. Perloff, The Quality of the Urban Environment (Baltimore: John Hopkins, 1969), pp. 305-32.

<sup>9</sup>John Western, "Social Groups and Activity Patterns in Houma, Louisiana," Geographical Review 63 (July 1973): 301-21.

<sup>10</sup>Estimate is based on data contained in "Northwest Territories Housing Corporation: Need and Demand Study for Yellowknife," Polar Associates, Yellowknife, 1974 (mimeographed); also from data in Gemini North Ltd., Social and Economic Impact of Proposed Arctic Gas Pipeline in Northern Canada, 7 vols., Table 7.9, 2:591.

<sup>11</sup>After experimenting with lower and higher cutoff points, the 6 percent level seemed to best reveal the patterns deemed most significant, that would otherwise be less discernible.

<sup>12</sup>The estimates were based on 1971 Census data, and/or federal polling district data:

Central Trailer Courts	390	(4.8%)
Northland Trailer Park	680	(8.3%)
School Draw Subdivision	1400	(17.2%)
Con Townsite	400	(4.9%)
Matonabee Subdivision	800	(9.8%)
New Town	2900	(35.6%)
Old Town-Latham Island	900	(11.0%)
Forrest Park Subdivision	400	(4.9%)
Giant Townsite	280	(3.4%)
 TOTAL YELLOWKNIFE	 8150	

<sup>13</sup>Joseph Sonnenfeld, reported in Saarinen, p. 7.

<sup>14</sup>The photographs also served a useful purpose in keeping the respondent's interest in the questionnaire at a sufficiently high level by varying the tasks required of them.

<sup>15</sup>See Table 3.5.

<sup>16</sup>Anne Buttmer, "Social Space and the Planning of Residential Areas," Environment and Behavior 4 (September 1972): 311.

## CHAPTER V

### INDICATORS OF SOCIAL WELL-BEING

#### Introduction

There appears to be an increasing concern in Canada for monitoring trends and variations in social well-being. "The measures most frequently used to gauge the state of our society have been generally economic in nature, such as growth, real output per person employed, and price indexes. But, while unquestionably essential, they do not fully or adequately reflect many of the major dimensions of the social system."<sup>1</sup> For the first time, the Economic Council of Canada has presented selected social indicators in its 1974 Review. Thus it is revealed that, according to a crowding index based on person per room data contained in the 1971 census, Sudbury is the town with the highest level of overcrowding, while Victoria has the lowest index value.<sup>2</sup> However, if cost instead of density is used as the criterion upon which a city's housing problem is based, Vancouver and Victoria residents spend the greatest percentage of their incomes on rent; those living in cities in Quebec spend least.<sup>3</sup> Edmonton appears to have the lowest levels of air pollution, and Montreal the highest, of eleven cities surveyed.<sup>4</sup> It may indeed seem unusual to find such statistics as these in an economic review. "In essence, by broadening the framework for viewing the spectrum of socio-economic activities, we are really attempting to extend the understanding of what constitutes and affects the "quality of life" in our society."<sup>5</sup>

As in most evolving endeavours of this type, a plethora of terms has emerged in the literature: social indicators, social accounting, monitoring social change, assessing liveability, the quality of life, social well-being, are all variations on the same theme which are jostling each other for pre-eminence. It appears that to most writers, the terms liveability and quality of life are synonymous. Wilson, for example, defines liveability as "the sum total of the qualities of the urban environment which tend to induce in a citizen a state of well-being and satisfaction."<sup>6</sup> This is not discernibly different from Wingo's treatment of the term "quality of life," as the extent to which social and physical environments are conducive to a state of happiness.<sup>7</sup> According to Smith, the concept of social well-being comes close to that of quality of life, but "if there is a significant difference, it is probably because criteria of social well-being depend less on subjective judgement and on the varying perceptions of individuals."<sup>8</sup> On the basis of this distinction, notions of quality of life are approached inductively, elicited from individuals, while those of social well-being tend to be deduced from objective statistics chosen for the purpose.

How, then, does one give substance to these concepts so that evaluation of various environments can be made? It is widely accepted that the quality of life varies geographically, at scales ranging from the sub-neighbourhood level to the sub-national level. How it varies, and how this variation is to be measured, is subject to differences of opinion. One strategy employs the Delphi technique, a controlled and structured method which applies basic statistical analysis to opinions gleaned from respondents who may often be experts, such as planners, architects, or civic officials.<sup>9</sup> However, their responses may not be

completely related to individual satisfaction. A second approach makes use of sample survey techniques to elicit reactions from people about how they perceive and evaluate external conditions.<sup>10</sup> It will be proposed later in this chapter that this procedure is the most fruitful. The third, most common method involves efforts to find appropriate quantitative measures of environmental, social, and economic quality. States of social well-being are inferred once these "social indicators" are analyzed in aggregate. Thus, social indicators function as a means of assessing the social well-being (using the term as described by Smith) of a particular society and its constituent parts, as well as providing a method to monitor changes in these states of social well-being.

The U.S. Department of Health, Education, and Welfare defines a social indicator as:

. . . a statistic of direct normative interest which facilitates concise, comprehensive and balanced judgement about the condition of major aspects of society. It is in all cases a direct measure of welfare and is subject to the interpretation that, if it changes in the "right" direction, while other things remain equal, things have gotten better or people are "better off." Thus statistics on the number of doctors or policemen could not be social indicators, whereas figures on health or crime rates could be.<sup>12</sup>

When used by geographers, social indicators should, according to D. M. Smith,

. . . ideally 1) measure the state of and changes over time in 2) major aspects or dimensions of 3) social conditions that can be judged normatively as 4) part of a comprehensive and interrelated set of measures embedded in a social model, and 5) their compilation and use should be related to public policy goals.<sup>13</sup>

Notions concerning quality of life are assuming a greater prominence in northern communities such as Yellowknife, where it is felt that implementation of public policy goals derived from these indicators may be more feasible, and perhaps more urgent, than in large metropolitan

areas. To most people, the present northern urban environment does not offer the same level of attractiveness as its southern counterpart. "Both because the quality of living in the south is high, and because persons of higher skill are needed in the northern latitudes, the quality of living in the Middle North settlement must be high."<sup>14</sup> The potential for a "good life" exists, but many of the potentialities are far from being realized. Social indicators may aid in the identification of planning goals that could reduce this gap between "what is" and "what could be."

#### Indicators for the Measurement of Social Well-being

There is a corruption of a nursery rhyme concerning newly-found sources of income in the North. This money "provides the cash which buys the booze which triggers the fights which beats up the wife and burns down the house that welfare built." Despite this cynical interpretation, six interrelated variables are indicated which are frequently used as social indicators: income, alcohol consumption, crime, family breakdown, housing, and social assistance. Four of these--income, crime, housing, and poverty--are social well-being criteria in almost all empirical studies; Flax, for example, uses these and eleven others in his assessment of conditions in American metropolitan areas.<sup>15</sup> Similar analyses at the inter-state, inter-city, and intra-city scale in the United States are provided by Smith.<sup>16</sup> In Canada, a replication of the Flax study has been performed by Palys as a part of a broader inquiry into the use of social indicators.<sup>17</sup> Palys attempts to compare conditions in ten Canadian urban areas using those indicators proposed by Flax; for various reasons outlined in his report, only six of Flax's fourteen indicators have remained completely intact. These include mea-

asures of unemployment, health, mental health, public order, community concern, and citizen participation. Palys provides a different indicator for the quality categories of poverty, income, housing, transportation, and air quality. Included in the Flax study but deleted by Palys were indicators of social disintegration, educational attainment, and racial equality.<sup>18</sup>

In the Northwest Territories, there is presently an attempt being made to monitor and assess the social and economic effects of the proposed pipeline development on communities of the Mackenzie Valley.<sup>19</sup> For each community, it is recommended that data be collected on housing, dependency on social assistance, native employment, population change, income, local businesses, demand for government services, changes in traditional activities, drinking problems, venereal disease, crime, child welfare, and family breakdowns. However, the authors determine that only 13 percent of the data required for such a study is readily available. Forty-eight percent of the desired statistics require changes in the present collection and compilation procedures, and data for the remaining 39 percent of the indicators selected are not available. Included in this latter category are statistics concerning labour force, population change, transiency, housing, cost of living, and family breakdowns.<sup>20</sup>

Despite this problem of data availability in the North, an attempt was made to obtain statistics for Yellowknife on the quality of life categories presented by Palys, in effect, to include Yellowknife in the comparison of conditions in the ten Canadian cities. Comparable data were available for only three of the eleven categories (poverty, income, and public order), and for two others (unemployment and health), some indirect comparisons could be inferred.

As a poverty indicator, statistics on the percent of the population supported by municipal or provincial welfare in May 1973 were gathered by Palys.<sup>21</sup> The average for nine cities was 6.7 percent; percentages ranged from 2.8 percent in Calgary to 10.1 percent in both Regina and Hamilton. In that month, a total of 490 people in Yellowknife, or 6.5 percent of the population, received territorial social assistance,<sup>22</sup> a percentage on par with the national urban average. Twenty-three percent of the social assistance recipients lived in Detah; hence, approximately half of the village's native residents received payments in that month. This lowers to 5 percent the proportion from Yellowknife, excluding Detah, that received social assistance in May 1973.

Another indicator used by Flax and Palys for which comparable data are available is average income. Since no allowances were made for cost of living differences, conclusions must be viewed with extreme caution. Average income in Yellowknife, as determined by two studies, is well above that for other cities in Canada. In a study of income distribution in the Mackenzie District, Kuo determined the mean 1970 income for Yellowknife residents to be \$9,626,<sup>23</sup> a figure that is \$2,000 above the first-ranked city of Ottawa, and almost \$3,000 greater than the national urban mean for 1970.<sup>24</sup> Mean income for Detah residents was only \$1,711 in 1970, which ranks the community twenty-ninth of the 33 surveyed by Kuo.<sup>25</sup> From a Statistics Canada study of urban family expenditure in Yellowknife, Whitehorse, and eight major southern cities, the Yellowknife sample had a mean net income before taxes of \$13,980 in 1972, again the highest of the ten cities included in the analysis.<sup>26</sup>

After experimenting with several categories of crime statistics, Palys concluded that, as an indicator of public order, the rate of theft

under \$50 "demonstrated its ability, for the 1970 data at least, to predict overall criminal activity."<sup>27</sup> The 1970 average rate of occurrence per 100,000 population for nine southern cities was 1,859. Quebec City's rate, at 829 per 100,000, was lowest, and Edmonton's rate of theft under \$50 was highest, at 3,402 per 100,000.<sup>28</sup> The number of crimes falling into this category in Yellowknife in 1970 numbered 170;<sup>29</sup> with a population of 6,000 at that time, the rate per 100,000 is 2,833, second highest only to Edmonton.

These three categories--poverty, income, and public order--are the only ones contained in the Flax and Palys studies for which data for Yellowknife can be presented with some confidence. Some comparative inferences can be made regarding unemployment and public health. Unemployment figures are unavailable for Yellowknife, but according to the manager of the Canada Manpower Centre, the rate is much lower than the national average.<sup>30</sup> A traditional indicator of health is the rate of infant mortality per 1,000 live births; again, no local figures are available, but the Northwest Territories' 1973 infant mortality rate of 28 per 1,000 live births (compared to 17.1 for all Canada) is an improvement over the 48 per 1,000 in 1972.<sup>31</sup> For the remaining six quality-of-life categories (housing, mental health, community concern, citizen participation, air quality, and transportation) no data are available.

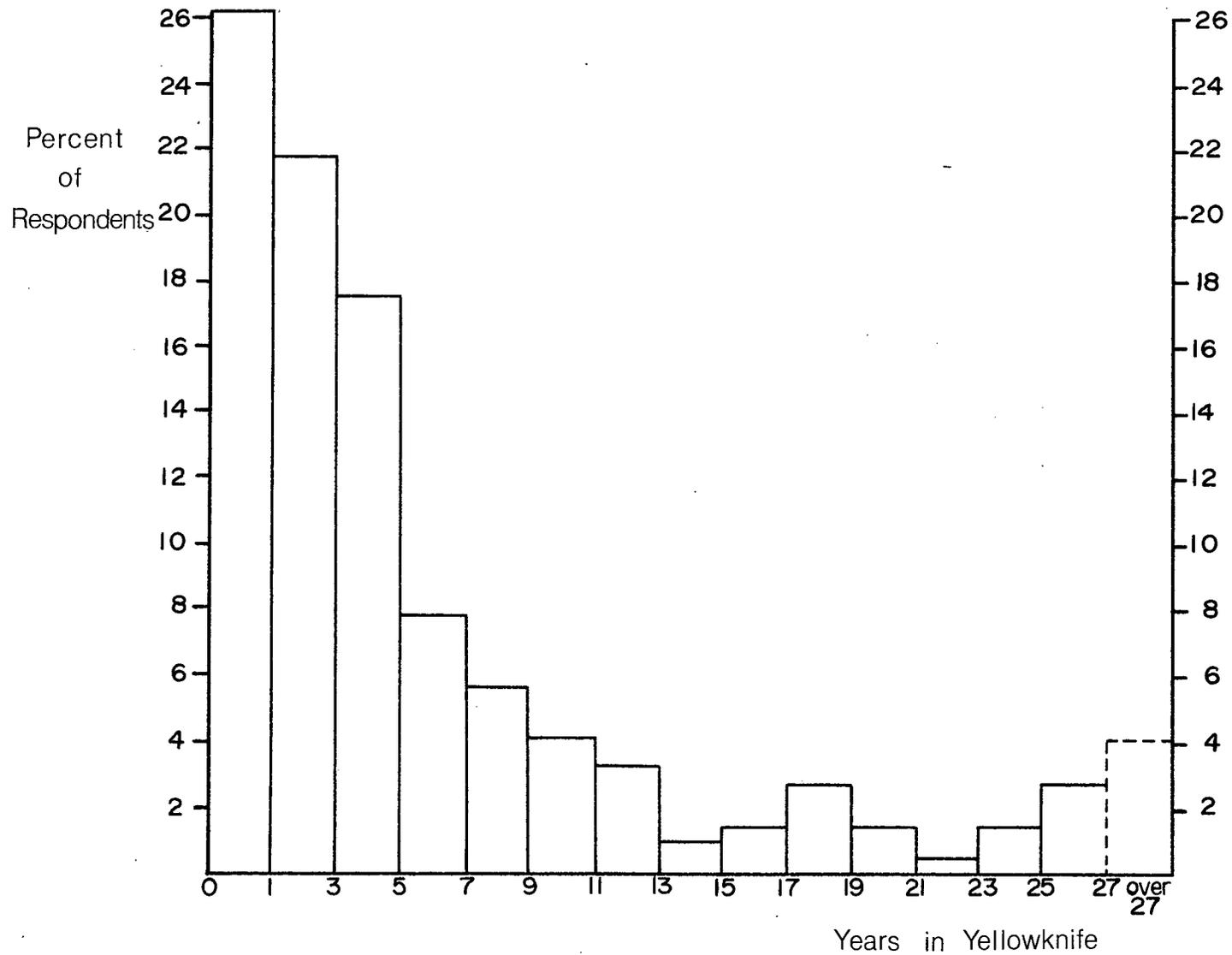
It is therefore evident that a replication of the Flax report is a futile undertaking for northern communities. The representation from such communities in any national sample is extremely small, and local and territorial governments do not have the financial resources, experience, and framework of the larger southern bureaucracies. Even if the statistics were available, further problems exist in determining which social

indicators would be most effective, how and at what scale they should be measured, and for what purposes they should be presented. Indeed, it is probable that important components of the quality of life cannot be quantified. Further discussion of the use of social indicators will be reserved until later in this chapter, after four distinctively "northern" indicators, symptomatic of social well-being in northern communities, have been discussed. Reliance is placed on material gained from interviews and personal observation, as well as on quantifiable data.

### Labour and Business Turnover

The problem of turnover is notorious to most who have lived in northern Canada. The standard joke of northern personnel managers ("we have three shifts per day--one arriving, one on the job, and one returning south") is heard with almost tiresome repetition. Population turnover is difficult to quantify in Yellowknife, due to the continuing net population increase since 1967, and to the paucity of data on residential change in southern communities, which might serve as the norm for communities such as Yellowknife.<sup>32</sup> However, there appears to exist in Yellowknife a small but stable core of long-term residents, constituting about 25 percent of the population, joined by a large transient group that stays for periods from a few months to several years. Figure 5.1 is a histogram showing length of residence of the 221 interviewees; only one-third have lived in the community for more than five years. Results to the questionnaire item concerning residents' intentions to leave the city appear in Table 5.1. Twenty-seven percent indicated that a move in the next few years was a virtual certainty, while 23 percent had absolutely no plans to leave. The Central trailer courts and Matonabee

FIG. 5.1: RESPONDENTS' LENGTH OF RESIDENCE IN YELLOWKNIFE



subdivision emerge as the most transient residential areas; conversely, almost two-thirds of the residents of Old Town - Latham Island consider a move as either not too likely or not at all likely. The longer a person has lived in Yellowknife, the less likely he is to have plans to move away from the city: Pearson's coefficient of correlation between length of residence and intention to move is  $-0.37$  (200 degrees of freedom; significance = 0.005).

TABLE 5.1

## INTENTIONS TO LEAVE YELLOWKNIFE

Residential Area	Very Likely		Likely		Not Sure		Not So Likely		Not At All Likely	
	No.	%	No.	%	No.	%	No.	%	No.	%
Central trailers	11	44%	1	4%	4	16%	5	20%	4	16%
Northland T. P.	6	20%	4	13%	5	17%	11	37%	4	13%
School Draw	7	22%	3	9%	6	19%	11	34%	5	16%
Con site	5	17%	1	3%	8	28%	10	35%	5	17%
Matonabee	11	37%	6	20%	5	17%	4	13%	4	13%
New Town	12	29%	7	17%	5	12%	4	10%	13	32%
Old Town-Latham Is.	7	20%	2	6%	3	9%	7	21%	15	44%
TOTAL	59	27%	24	11%	36	16%	52	24%	50	23%

Just as population turnover varies among the city's residential areas, rates of turnover vary substantially among the city's major occupational categories. Giant Mines estimated their annual turnover rate for the first four years of this decade to be 150 percent,<sup>33</sup> and labour shortages are a regular problem. In 1974, Giant experienced an employee

turnover rate of 190 percent, a figure decribed as "horrendous" by the company president.<sup>34</sup> Turnover at Con averages about 160 percent per year, yet there is a wide range in turnover rates according to job category and marital status. Lowest rates (under 25 percent) are recorded by administrative staff; for general labourers the rate approaches 200 percent. For the 50 single men living in Con bunkhouses, an average of four a week leave; the annual turnover rate is therefore 300 percent.<sup>35</sup> An examination of Con's 162 general roll (i.e. underground and mill) employees reveals a length of service, and thus length of residence, pattern similar to that of the Yellowknife population. As of January 1, 1974, 44 percent of these employees had been with the mine for less than one year, 32 percent for one to ten years, and the remaining 24 percent had worked at Con for over ten years. It is therefore not surprising that excessive turnover at the mines is viewed as an unnecessary expense. "It is strongly suggested that, with the possible exception of the tax problem, the turnover in personnel is the greatest single obstacle to the expansion of the northern mining industry."<sup>36</sup> For northern mining companies, high turnover gives rise to a high financial outlay for advertising, travel, medical services, and training.

Labour turnover in the territorial government is much lower than that in other sectors, averaging 27 percent per year in 1972 and 1973, and rising to 31 percent in 1974.<sup>37</sup> However, both figures are higher than the average 10 percent annual turnover in government departments in the south.<sup>38</sup> "The average cost of replacing a Territorial Government employee is \$7,000, which when applied against the number of employees terminating each year results in an expenditure of approximately \$3.5 million."<sup>39</sup> Turnover is higher for government professionals and labourers

than for those in clerical, secretarial, and administrative positions.<sup>40</sup>

Turnover in personnel employed in the non-government service sector varies widely. At the largest hotel in Yellowknife, 350 employees are required yearly for 80 permanent positions; the rate is therefore almost 350 percent.<sup>41</sup> Annual turnover is 100 percent at the Hudson's Bay Company, the largest retail outlet in the city.<sup>42</sup> Smaller establishments within the service sector also come and go with surprising frequency. As outlined in Table 2.4, rapid growth was experienced in these sectors between 1972 and 1974. Yet this growth was not simply through the addition of new establishments to existing stable ones: within the five largest functional categories in Table 2.4, 41 percent of functions in existence in March 1972 were no longer in existence under the same name two years later (Table 5.2). In the general services, and contractors and trades categories (mostly one- or two-man operations), 45 percent and 59 percent respectively had gone out of business within the two year period. One such entrepreneur, a painter who established his one-man business in 1973 but intended to leave for Fort McMurray or Uranium City in 1975, attributed his demise to an inability to compete with large southern firms in bidding for large contracts.

Turnover, then, is a problem in all economic sectors found in Yellowknife. Yet, it would be unrealistic to assume that it could easily be lowered to "southern" levels. Undoubtedly, many transients arrive (especially in summer) with no intention of staying for more than a few months. One prospective mine worker was overheard as saying "I'd start as a labourer at \$3.84 an hour, and in six weeks I'd be up to \$5.50, but I'm not going to stay in town that long." Coupled with this, many enterprises recognize that there is always a transient, unskilled labour

TABLE 5.2

BUSINESS TURNOVER IN SELECTED FUNCTIONS  
YELLOWKNIFE, 1972 TO 1974

Type of Function	No. of Establishments March 1972	No. of Establishments March 1974	No. New in Period	Defunct in Period	
				No.	%
Retail Business	29	53	31	7	24%
Transportation	16	19	8	5	31
General Services	38	107	86	17	45
Contractors and Trades	58	70	46	34	59
Professional	19	26	10	3	16
TOTAL	160	275	181	66	41

SOURCES: 1972 a) N.W.T. Community Data, Yellowknife, March, 1972, Dept. of Industry and Development.

b) 1972 Official City Directory, Yellowknife, Territorial Publications, Whitehorse, Y.T., 1972.

1974 a) N.W.T. Community Data, Dept. of Information, August, 1974.

b) 1974 Yellowknife City Directory, M and S Publications, Yellowknife, Sept., 1974.

c) C.N.T. Telephone Directory, Jan. 1, 1974.

force which will accept menial jobs at low wages. In the mining industry, the jobs with high turnover rates<sup>43</sup> tend to be simple, tedious, low-paying and sometimes dangerous<sup>44</sup> positions. In a Yellowknife cafe almost totally reliant on transient labour, one waitress said: "I've been here five weeks at the minimum wage, and I'm the veteran of the waitresses. I'm quitting tomorrow; I've got a government job." But to suggest that economic incentives would substantially reduce the whole problem of turnover is probably an oversimplistic viewpoint. Discontent

with some aspects of quality of life in Yellowknife also contributes to high population turnover. This appears to be gaining some recognition by mining companies in the North:

With few exceptions, today's northern townsites are a disgrace to the mining industry. . . . [It is] not surprising they cannot recruit personnel.<sup>45</sup>

Turnover rates are generally symptomatic of problems pertaining to quality of life in northern communities. But not only are they symptomatic of problems, they also contribute to the problems. Strong, stable social structures and functions are difficult to maintain given presently high rates of population turnover. These can range from the level of personal friendship ("I've had five good friends leave town recently; I really wonder if it's worth making new ones"), to local clubs and organizations ("I've done most of the work for the \_\_\_\_\_ Club for the past few years, and I seriously wonder if it will still continue this year without me"). An unfortunate spiral is in effect, whereby turnover is high because the quality of life is defective; but transiency prevents the creation of a stable community structure, which may lead to further deterioration in quality of life.

#### Crime and Correctional Services

Crime rates have traditionally been one of the more frequently used social indicators, no doubt reflecting public concern over "law and order." Moreover, southern Canadians generally perceive petty crime to be a major problem in northern communities, and thus an obstacle in improving quality of life in the North. It has been shown that rates of theft in Yellowknife are above the Canadian average, yet these figures alone do not necessarily represent overall criminal activity, nor do they reveal much about residents' attitudes towards the severity of the

problem of crime in the community. A less superficial analysis of crime and correctional services in Yellowknife is therefore warranted.

Statistics do indeed show that the rate of criminal offences is higher in the Northwest Territories than in the nation as a whole. Violations of territorial statutes (of which approximately 90 percent are liquor offences<sup>46</sup>) are five times the national rate, while criminal code offences are double the rate for Canada. Assaults occur over seven times more often in the Northwest Territories than in the rest of the country.<sup>47</sup> More detailed reporting of northern criminal statistics has demonstrated that crime rates in Yellowknife are increasing at a much slower rate than in other communities in the Territories, and over a six-year period, Yellowknife rates were generally lower than in most other communities. Relative to thirteen other communities in the Mackenzie district, Yellowknife ranked thirteenth in the rate of crimes of violence, fifth in crimes against property, and seventh in liquor violations over a six-year period ending in 1972.<sup>48</sup> A complete breakdown of criminal offences in Yellowknife into categories for the years 1967 to 1973, and for the first half of 1974, is presented in Table 5.3; rates per 100 population of the frequently occurring offences in 1968, 1971, and 1973 (the three years for which population figures are reliable) are given in Table 5.4. It appears from the tables that the total per capita offence rate may be declining, although this may hide increases in the rates of more serious offences, since rates of the more frequent petty offences found in the "other criminal code" and "territorial statutes" categories have decreased throughout the period.

Again, some discussion as to what these data do and do not reveal is necessary. The reason for higher crime rates in smaller northern com-

TABLE 5.3

NUMBER OF CRIMES COMMITTED, BY TYPE  
YELLOWKNIFE (INCLUDING DETAH)  
1967 - 1973

Type of Crime	1967	1968	1969	1970	1971	1972	1973	Jan.- June 1973	Jan.- June 1974
Murder	1	0	0	0	0	0	0	0	0
Att. Murder	1	0	0	0	0	0	0	0	0
Manslaughter	0	0	0	0	0	0	0	0	0
Rape	1	2	2	0	3	0	3	1	1
Other Sex Off.	1	4	5	2	3	4	8	7	1
Wounding	2	3	1	2	0	3	7	4	1
Assaults	126	72	94	112	172	213	211	93	81
Robbery	0	2	2	3	2	3	3	1	0
Break and Enter	57	81	90	67	104	125	130	69	57
Motor Veh. Theft	24	43	37	31	50	63	67	35	41
Theft under \$50	43	34	74	85	121	111	58	22	41
Theft over \$50	94	116	156	170	250	257	393	181	217
Stolen Goods Poss.	5	7	10	7	1	6	11	5	0
Fraud	68	52	89	84	91	99	79	33	44
Offensive Weapons	4	6	7	9	2	8	26	10	11
Oth. Criminal Code	242	178	247	176	297	323	324	172	109
Fed. Statutes	52	4	9	17	9	22	37	17	13
Terr. Statutes	764	641	649	650	749	627	877	515	661
Munic. Bylaws	23	11	2	5	2	n.a.	n.a.	n.a.	n.a.
Drugs	0	0	7	16	25	93	n.a.	n.a.	n.a.
Impaired Driving	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	81	48	48
<b>TOTAL</b>	<b>1512</b>	<b>1256</b>	<b>1481</b>	<b>1436</b>	<b>1881</b>	<b>1957</b>	<b>2316</b>	<b>1213</b>	<b>1326</b>

## SOURCES:

- a) Monthly uniform crime reports, Yellowknife Detachment, R.C.M.P.
- b) Canadian Arctic Gas Pipeline Ltd., op. cit., Vol. 7, Book 4, Appendix E, Tables E.1 through E.6, pp. 29-40.

## NOTES:

- a) For 1973 and 1974, the categories "Theft under \$50" and "Theft over \$50" were changed to "Theft under \$200" and "Theft over \$200" respectively.
- b) Each reported offence has been evaluated by police that a crime has in fact been committed; it does not say whether or not a charge has been laid, or whether a conviction has been obtained. Also, when one person has committed more than one crime only the most serious crime has been recorded.
- c) "Other Criminal Code" offences include causing a disturbance, unlawful damage, and mischief.
- d) "Federal Statutes" offences include home brewing, and violations of the Fisheries Act, Post Office, and Air Transport regulations.
- e) Ninety percent of "Territorial Statutes" offences are liquor ordinance violations; the others are violations of Child Welfare, Labour Relations, and Coroner's Ordinances.

TABLE 5.4

SELECTED CRIMES PER 100 POPULATION  
YELLOWKNIFE: 1968, 1971 AND 1973

Crime	1968	1971	1973
Assault	3.0	2.8	2.8
Break and Enter	1.4	1.7	1.7
Motor Vehicle Theft	0.6	0.8	0.9
All Other Theft	3.2	6.0	6.0
Fraud	1.6	1.5	1.1
Other Criminal Code	5.8	4.8	4.3
Territorial Statutes	18.2	12.1	11.7
Rate of Total Offences	36.0	30.3	30.9

SOURCES: Same as for Table 5.3

NOTES: a) Populations established as 4,200 in 1968, 6,200 in 1971, and 7,500 in 1973.

b) "All other theft" category includes "Theft under \$50" and "Theft over \$50" for 1968 and 1971 data, and "Theft under \$200" and "Theft over \$200" for 1973 data.

c) "Rate of Total Offences" is based on total appearing in Columns of Table 5.3.

d) See Notes to Table 5.3

munities may not be because there is proportionately more crime per se, but because of their small populations and greater levels of surveillance brought about by a high police-to-population ratio, it is simply harder to hide drunkenness and assaults. Often, these crimes are alcohol-related and unplanned. Detailed comparisons with other jurisdictions are difficult because of the manner in which these data are recorded.<sup>49</sup>

Do these statistics represent a changing crime rate, or are they also indicative of increased policing or a greater sophistication in data gathering? As well as questioning the statistics themselves, concern must be expressed regarding their validity in terms of reflecting some quality of life, most often labelled public order:

. . . what relation of robbery rates, or rates of theft under \$50, or even TCI (Total Crime Index) have to do with public order? Do they tell us anything meaningful about crime in the streets? . . . Do they tell us anything about the possibility or probability of being mugged while walking through the park? Possibly, but who can say?<sup>50</sup>

In addition, these crime data do not reveal who commits them, or where they take place. Statistics must be complemented by information provided by those involved in public protection, and not the least by residents themselves.

The R.C.M.P. officer responsible for data tabulation expressed the opinion that crime in Yellowknife was more than keeping up with the increase in population. There is a marked increase in the summer months, "when people can get outside and raise hell, and when the transient population is at its peak." Violations of the liquor ordinance (which constituted almost exactly half of the total crimes committed in the first six months of 1974) are localized, taking place in the vicinity of the larger downtown bars, and from there north along the main street to Old Town. Assaults follow a similar locational pattern, while crimes against property are randomly distributed.

In the first six months of 1974, a total of 1,269 people (of which 1,118 were males) were incarcerated in the R.C.M.P. guardroom. Of these, 595 were released without charge when sober.<sup>51</sup> To have over 2,000 prisoners per year in a city of 8,500 may seem like an extraordinarily high number, "but most of these people have been here before and will be here

again." Stories of repeaters showing up regularly at the guardroom asking to be sobered up, and then escorted to the government detoxication centre, are not uncommon.

Serious offenders from the Northwest Territories are imprisoned at the Yellowknife Correctional Institute. Clientele from the Yellowknife region<sup>52</sup> has dropped from 37.4 percent at the Institute in 1967 to 21.6 percent in 1971, whereas committals from the Frobisher Bay region registered the greatest increase.<sup>53</sup> Forty-four percent of those imprisoned from the Yellowknife region in 1971 were Indian, 35 percent Caucasian, 17 percent Metis, and 4 percent Inuit.<sup>54</sup> Since then, a further decline was registered; in 1973 only 7 percent of those committed were from the Yellowknife region.<sup>55</sup> This is explained by the Chief of Corrections as being due to an increase in social services, employment, and recreation opportunities in the city since the late 1960s.<sup>56</sup>

To summarize, criminal activity in Yellowknife appears to be keeping pace with the increased population, but, while still high compared to national figures, levels are not as great as in other communities in the Territories. Judging from the Correctional Institute data, rates of serious offences may be declining in the community. Perhaps Yellowknife is converging toward a southern crime profile, reflecting the "maturing" of the community from a frontier town where drunkenness and assaults were commonplace, to a small city in which offences tend to be both well planned and executed. To what extent public order is perceived as a problem by Yellowknife residents is a topic to be investigated later.

Liquor Offences and Consumption

The fact that alcohol, and alcohol abuse, is ingrained in northern lifestyles is readily apparent to the most casual observer visiting a community with a liquor outlet. It is a topic of controversy within the northern media and territorial government; a detailed investigation of the subject is not possible in this analysis. Yet because drinking problems may be indicative of social problems in the community, some relevant statistics should be presented and interpreted.

Although no complete records exist of the number of people who drink to excess, statistics which indicate the probability of drinking problems include the amount purchased, its availability in licensed premises, and the number of criminal offences in which alcohol is involved. Total sales (including sales to licensed premises) in Yellowknife amounted to \$2,144,000 in the 1972/73 fiscal year,<sup>57</sup> or about \$300 per capita, or \$550 for every adult of legal age. In the 1970/71 fiscal year, total Yellowknife sales were \$1,675,000<sup>58</sup> or \$270 per capita. This was almost double the 1970 per capita figure of \$137 for the Northwest Territories, and more than three times the national figure of \$80 per capita.<sup>59</sup> Any spatial and temporal comparisons must be tempered by the fact that liquor and beer prices are between 15 percent and 80 percent higher than in Edmonton, and that prices have risen rapidly of late.

Yellowknife has a total of 2,055 licensed seats in approximately fifteen bars, lounges and dining rooms, all located in central New Town.<sup>60</sup> Of these, 778 were opened to the public in the first five months of 1974. Sixty percent (1,221 of the 2,055) of the total are "liquor only" seats-- in other words, there is one licensed bar seat for every three eligible drinkers in the city;<sup>61</sup> on some nights, all bars are full. Despite these

rather awesome statistics, Yellowknife shows the lowest increase in the rate of liquor violations between 1967 and 1972 of thirteen communities in the Mackenzie district of the Northwest Territories.<sup>62</sup> In 1972, the rate of liquor offences per 100 population in Yellowknife was seven,<sup>63</sup> or one-half the rate in the Great Slave sub-region. Yellowknife's rate of liquor offences is mild compared to Fort Simpson's which had a rate of 49 per 100 population in 1972.<sup>64</sup>

Heavy alcohol consumption in the North stems from social, economic, and historical factors. Miners and fur traders would indulge in "binge" drinking sessions with others; restrictions on consumption in the past led to a tradition of illicit drinking among native people. Poor housing conditions, the lack of social amenities, pressure from friends and relatives, and personal frustrations can all lead to heavy alcohol consumption. While consumption (and, inevitably, alcohol problems) in Yellowknife continues to be high, and, although the influx of civil servants has had the effect of diluting the problem, it is not unreasonably optimistic to conclude that the relative decline in the rate of liquor-related offences both results from, and helps lead to, a higher level of quality of life in the city.

#### Social Assistance, Subsidies, and the Cost of Living

Yellowknife's mean income statistics have demonstrated that the city's residents are among the most highly paid of any community in both the Northwest Territories and Canada. Also, the proportion of residents supported by social assistance, while high in Detah, is quite low relative to southern cities. These statistics are generally indicative of economic well-being on a city scale, but social and spatial variations

in income, and the extent to which higher incomes are offset by the higher cost of living, remain unknown. Hidden in the territorial social assistance statistics for Yellowknife is the fact that almost all employees of the mines and governments receive monthly subsidies for housing, and many receive additional assistance to help pay for fuel and utilities.

Yellowknife is not included in national surveys of cost of living variation. As a general figure, however, it is estimated that the cost of living is between 20 and 25 percent higher in Yellowknife than in Edmonton. Food, shelter, and transportation costs would be well above national figures; the only major expenditure category that may approach southern ones is household furnishings, equipment and clothing.<sup>65</sup> Food prices in Yellowknife were 30.6 percent higher than Edmonton's in 1973, and between 1970 and 1973 food prices rose by 48.4 percent, compared with an average increase of 24.6 percent for major Canadian cities.<sup>66</sup> Much of this greater rate of increase is due to increased costs for transporting food from Alberta. Prices of many food items rise substantially during break-up and freeze-up; at these times supplies are airlifted, or do not get through at all. Occasional shortages and high food costs, which periodically rise even higher, are a source of frustration for most residents. The Yellowknife chapter of the Consumer's Association of Canada is "not satisfied that freight rates alone explain these substantial differences" in the food prices between Edmonton and Yellowknife. "We find it highly incongruous that the people who most need subsidizing do not receive it."<sup>67</sup>

As discussed previously, territorial government social assistance payments were made to 6.5 percent of Yellowknife's population in May 1973. Besides reflecting the national urban mean, it has been determined that

this proportion is the second lowest (next to Inuvik) of communities in the Northwest Territories.<sup>68</sup> Direct payments in the 1973/74 fiscal year amounted to \$360,000 in Yellowknife, with an additional \$48,667 allocated to Detah residents.<sup>69</sup> Cases of social assistance in Yellowknife are seasonal, due to increased employment opportunities in the summer. For example, in August 1973, a total of \$21,880 was paid to 366 people in 116 households in Yellowknife; in January 1974, these figures doubled, with 608 people in 252 households receiving \$47,865 in social assistance. In Detah, the figures do not fluctuate to the same degree: in August, 86 people received \$3,001, while in January \$4,519 was allocated to 94 residents.<sup>70</sup> It is difficult to draw any detailed conclusions regarding trends in social assistance payments; inflation, population growth, and changing criteria for benefits are all intervening variables. The average annual increment in payments made between 1968/69 and 1973/74 has been calculated as 20 percent.<sup>71</sup> Despite Yellowknife's rapid population growth, this annual increase is among the lowest of all communities in the Territories.<sup>72</sup>

Clearly, this aspect of the "welfare industry" is not a significant one in Yellowknife, but to discuss social assistance payments without some mention of other sources of subsidization is both misleading and elitist. Most major employers in Yellowknife, including the three levels of government, both mines, and larger companies within the service sector, provide monthly housing subsidies. Found in addition to this, especially in the private sector, are allowances for fuel and utilities, and vacation transportation. In some cases an all-inclusive per diem allowance is paid. The extent of the subsidy system is difficult to describe in detail, owing in part to the almost incredible complexity

of the system itself.<sup>73</sup> Also, the discussion of subsidies is a sensitive matter, particularly in the private sector, as some firms fear that subsidies will come to the attention of the Department of National Revenue and subsequently be taxed.

Housing subsidies vary according to employer, the employee's position, his marital status, and family size. Table 5.5 gives some examples of their extent in the city in 1973. In 1971, federal employees in the Northwest Territories were allocated an average annual subsidy of \$1,733.<sup>74</sup> The federal government provides little incentive for an employee to purchase a house, as no assistance (with the exception of a fuel subsidy) is provided for a federal employee who owns his home in Yellowknife.<sup>75</sup> For territorial government employees living in rental accommodation owned by or managed for the territorial government, housing subsidies range from approximately 40 percent to 60 percent of the market rent. If the employee does not request housing, he is given a subsidy of \$65 per month if single, or \$150 a month if married.<sup>76</sup> In 1971, the average amount paid to a territorial government employee for housing was \$1,542.<sup>77</sup> Like the territorial government, many private firms consider subsidized housing as an incentive for attracting and keeping employees. Larger companies often own company houses for their managerial employees. Most housing subsidies are paid to personnel recruited in the South; those hired locally by private firms generally do not receive them. In a consultant's survey of eighteen firms in the city in 1974, it was revealed that higher-salaried employees (managerial and professional) received greater housing, utilities, and vacation benefits than those in technical/support and secretarial/clerical positions.<sup>78</sup>

Statistics of mean income and social assistance can only provide,

TABLE 5.5

## EXAMPLES OF HOUSING SUBSIDIES IN YELLOWKNIFE, 1973

Employee and Residence Description	Monthly Rent*	Cost to Employee**	Subsidy	
			Amt.	% Of Rent***
Multi-Fam. Unit at Mine	\$268	\$ 45	\$223	83%
S.F.H. at Mine Site	302	60	242	80
S.F.H., Airline Executive	500	157	343	69
Terr. Govt. S.F.H., 1000 sq.ft.	467	197	270	58
Fed. Govt. S.F.H., 1000 sq.ft.	467	210	257	55
Fed. Govt. S.F.H., rented	508	235	273	54
D.I.A.N.D. Row House	608	325	283	47
Res. of Private Sector Emp.	325	225	100	31
Fed. Govt., Single, in Apt.	200	150	50	25
Res. of Private Sector Emp.	422	322	100	24
Fed. Govt. S.F.H., self-owned	442	413	29	7
Municipal Govt., single	n.a.	n.a.	50	n.a.
Municipal Govt., married	n.a.	n.a.	85	n.a.

SOURCE: Based on data contained in Canadian Arctic Gas Pipeline Ltd., op. cit., Book 1, Vol. 2, Table 6.13, pp. 477-478.

\* Actual monthly rent, including utilities

\*\*Monthly cost to employee

\*\*\*Subsidy as percentage of actual rent

at best, a general representation of economic well-being in Yellowknife; other information revealing the cost of living and the extent of subsidization from all sources can furnish a more accurate impression. It comes as no surprise that Yellowknife is often referred to as a subsidized

city--the subsidy system is pervasive, but also appears to be regressive. The chance that a resident will receive a subsidy, and its amount, seem to be directly proportional with the resident's income. The areal manifestations of the subsidy system have been discussed: neighbourhoods (Con, Matonabee, and School Draw) have been created in which over three-quarters of the residents receive housing subsidies. Inevitably, this is a source of discontent among those lower income, less subsidized residents in the trailer courts, and Old Town - Latham Island. As such, it is an important component of quality of life in the city; but again, the extent of this inter-group discussion cannot be inferred simply from statistics of economic well-being.

#### Criticisms of the Use of Social Indicators

In all of the empirical studies using social indicators referred to in this chapter,<sup>79</sup> the authors have devoted much attention to qualifying their utility. Similar cautions concerning the selection and interpretation of Yellowknife statistics pertaining to turnover, income, poverty, crime, and liquor consumption have been expressed. All these criticisms stem from two fundamental problems inherent in the use of social indicators, namely, the criteria behind the choosing of the indicator itself, and the scale at which it is presented.

In choosing a social indicator, the aim of the researcher is to find those quantifiable data which are most representative of social well-being. But very often these data are: first, unavailable; second, too ambiguous and therefore unreliable; and third, can be criticized as at best indirect surrogates for the reality of human experience which they purport to represent. For example, any comparison of social well-

being in Yellowknife with other North American cities using indicators chosen by Flax is virtually impossible, due to a lack of data. The same problem stands in the way of Palmer's proposal to monitor socio-economic change in northern communities. Similarly, according to the Economic Council of Canada, Montreal has the highest level of air pollution--but comparable data for Vancouver, Winnipeg, and cities in the Maritimes are non-existent. Examples of data ambiguity have been expressed in previous sections. Income and poverty measures have been criticized, among other reasons, because they give no indication of variation among the population, and because they do not account for differences in cost of living and subsidies. What is the statistic supposed to represent--why was it chosen in the first place? Adequate housing is a component of social well-being. As mentioned at the beginning of this chapter the Economic Council presented data for Canadian cities based first on crowding indices, then on financial outlay for rent. Differing results were recorded without comment. Does infant mortality represent public health? Do concentrations of air pollution components reflect natural environmental quality--especially in Yellowknife where the air is relatively free of nitrogen dioxide but where dangerously high concentrations of arsenic have been found in the water? Palys caricatures this type of rationalization:

Want something indicative of public order? Try crime rates. Which one? Robbery rates look good; they're fairly reliable, why not try that? . . . The time has come to stop believing that the mere labelling of a statistic as a social indicator will somehow make it one.<sup>80</sup>

The second major problem arising from the use of social indicators is one of scale. Because of the relative ease with which data on different cities can be obtained, a single statistic is used as representative

of that whole city. Of course, any differences within various sub-areas of the city are lost in the mean value that is presented. Suppose infant mortality rates were indeed indicative of public health. If a mean rate could be determined for Yellowknife, it would say nothing about the state of public health in Rainbow Valley vis a vis New Town. The same argument applies for virtually all other frequently used indicators, including housing, poverty, income, public order, and air quality. Extreme conditions in one neighbourhood become hidden as opposite conditions in other areas provide sufficiently great numbers to make average values mean little if one is concerned with quality of life in all areas.

The most basic problem concerning the use of social indicators is a consequence of the nature of the methodology from which they are derived. Indicators are assumed to be representative of some state of social well-being. Social well-being is therefore based upon criteria chosen by a researcher, inevitably reflecting what is thought by him to represent reality. But "is well-being what the figures say, or what people feel?"<sup>81</sup> On the basis of whose values and priorities is well-being to be judged? There is no guarantee that housing, or public order, or any other quality category discussed in this chapter is perceived by Yellowknife residents as an important component of quality of life in the community. Even if it was, intra-urban variations are again masked. It is probable that quality of life components that reflect the values and needs of one residential group, Northland Trailer Court residents for example, differ markedly from those of another residential group, such as the government employees living in subsidized houses in Matonabee subdivision. Clearly, if social indicators are to be related to public policy goals, as recommended by Smith,<sup>82</sup> any study of quality of life must

take these differences into account.

### Quality of Life: An Inductive Approach

Statistics used as social indicators may approximate social reality, but can easily provide an inaccurate interpretation of levels of well-being when applied uncritically at a macro scale. At best, they are one element in a comprehensive scheme designed to identify and evaluate present quality of life. A complementary strategy is indirectly suggested in Smith's distinction between "quality of life" and "social well-being." "Criteria of social well-being depend less on subjective judgement and on the varying perceptions of individuals."<sup>83</sup> An inductive approach towards quality of life, which can suggest preferences of residential groups for alternate configurations of their physical and social environments, does not pose such grave methodological problems as a deductive strategy. Any study of quality of life that exclusively employs "hard" objective data, conveniently obtained from government organizations and easily manipulated for presentation, leaves out the concerns--often among the most salient--for which data are unavailable or areally incomplete. Again the question is posed: on whose perception of reality is quality of life to be based, the researcher's or the residents'? A quality of life survey based upon chosen criteria may appear more rigorous methodologically, but it also disregards people's own conscious reports as, at best, logistically too difficult to incorporate, and, at worst, unreliable and therefore untrustworthy. Research involved in assessing quality of life must respect the resident's reasons and his reasoning--to give due regard to their perceptions of the reality upon which quality of life criteria are inevitably based. "The best way to discover what a person

is trying to do is to ask him."<sup>84</sup>

A more detailed analysis of quality of life in Yellowknife is justified, based on residents' perceptions that also reveal the degree and type of differentiation that may exist within the community. Palys, after an exhaustive and frustrating survey that used deductive methodology, reached a similar conclusion:

. . . it is proposed that research be initiated in which representative population samples are interviewed regarding their perceptions of the reality in which they live. The collective (or differentiated) views of each geo-population unit would then be considered as representing reality. Social indicators would then be those relevant [sic] social statistics which were predictive of this reality.<sup>85</sup>

Attention will now be focussed on a community and neighbourhood analysis of quality of life, derived from information provided by the residents themselves. These results will help identify those components whose satisfaction or denial leads to a complex system of residential attitudes and behaviours, which may be summarized in the notion of quality of life.

Footnotes

<sup>1</sup>Economic Council of Canada, Eleventh Annual Review: Economic Targets and Social Indicators (Ottawa: Information Canada, 1974), p. 7.

<sup>2</sup>Ibid., pp. 76-77.

<sup>3</sup>Ibid., p. 86.

<sup>4</sup>Ibid., p. 103. Data for Vancouver, Winnipeg, and cities in the Maritime provinces are not available.

<sup>5</sup>Ibid., p. 14.

<sup>6</sup>Robert L. Wilson, "Livability of the City: Attitudes and Urban Development," in F. S. Chapin and S. F. Weiss (eds.), Urban Growth Dynamics (New York: Wiley, 1962), p. 359.

<sup>7</sup>Lowdon Wingo, "The Quality of Life: Toward a Microeconomic Definition," Urban Studies 10 (February 1973): 4.

<sup>8</sup>David M. Smith, The Geography of Social Well-Being in the United States (New York: McGraw-Hill, 1973), p. 7.

<sup>9</sup>For example, see Norman C. Dalkey, Studies in the Quality of Life: Delphi and Decision-Making (Lexington, Mass.: D. C. Heath, 1972).

<sup>10</sup>See J. S. Matthiasson, Resident Perceptions of Quality of Life in Resource Frontier Communities, Center for Settlement Studies, Series 2: Research Report No. 2, University of Manitoba, Winnipeg, 1970.

<sup>11</sup>Examples of studies which use this approach include: Economic Council of Canada, Eleventh Annual Review: Economic Targets and Social Indicators; David M. Smith; T. S. Palys, Social Indicators of Quality of Life in Canada: A Practical/Theoretical Report, Manitoba Department of Urban Affairs Research Report, Winnipeg, August, 1973; John Palmer and Marcel St. Pierre, Monitoring Socio-Economic Change, Environmental-Social Program, Northern Pipelines, Report No. 74-9, Ottawa: Information Canada, May 1974; United States Department of Health, Education and Welfare, Toward a Social Report (Ann Arbor: University of Michigan Press, 1970); Michael J. Flax, A Study in Comparative Urban Indicators: Conditions in 18 Large Metropolitan Areas, Washington, D.C.: The Urban Institute, No. 1206-4, April 1972.

<sup>12</sup>U.S. Dept. of Health, Education, and Welfare, Toward a Social Report, p. 97.

<sup>13</sup>David M. Smith, p. 54.

<sup>14</sup>J. E. Page, "On Urbanization in North America and Mid-Canada Development," Essays on Mid-Canada, Mid-Canada Development Foundation (Toronto: Maclean-Hunter, 1970), p. 247.

<sup>15</sup>Flax, p. 9.

<sup>16</sup>David M. Smith, chaps. 7, 8 and 9.

<sup>17</sup>Palys, Chapter II.

<sup>18</sup>See Palys, Chapter II, for more detail. It should be emphasized that this section of Palys' replication of the Flax study is to "be seen as an introduction to the final portion of the text--a discussion of the strengths and weaknesses of those indicators proposed by Flax, and a theoretical proposal of the type of data gathering and research which should . . . be done" (pp. 8-9).

<sup>19</sup>Palmer and St. Pierre; see also John K. Stager, Old Crow, Y.T. and the Proposed Northern Gas Pipeline, Environmental-Social Program, Northern Pipelines, Report No. 74-21, Ottawa: Information Canada, 1974, for a more satisfactory in-depth study of a single community.

<sup>20</sup>Palmer and St. Pierre, Table 6.1, pp. 43-46.

<sup>21</sup>Palys, pp. 26-38.

<sup>22</sup>Department of Social Development, Government of the Northwest Territories, "Social Assistance Cases by Settlement, Yellowknife Town, and Yellowknife Indian Village", April 30, 1974, pp. 8-9.

<sup>23</sup>Chun-Yan Kuo, A Study of Income Distribution in the Mackenzie District of Northern Canada, Department of Indian Affairs and Northern Development, Ottawa, November 1972, Appendix G, p. 31.

<sup>24</sup>Palys, p. 39.

<sup>25</sup>Kuo, p. 31.

<sup>26</sup>Statistics Canada, Consumer Income and Expenditure Division, "Urban Family Expenditure, 1972: Selected Tables," Table I, pp. 12-13. The comparison of Whitehorse and Yellowknife with the eight cities "should be viewed with some caution, due to differences in sample design and the lower level of response particularly in Yellowknife." (p. 1).

<sup>27</sup>Palys, p. 74.

<sup>28</sup>Ibid., p. 75.

<sup>29</sup>Uniform Crime Reports, Yellowknife Division, R.C.M.P. The assistance and cooperation of S/Sgt. Pringle is acknowledged.

<sup>30</sup>Interview with Mr. W. J. Loveday, Manager, Canada Manpower Centre, Yellowknife, 21 August, 1974.

<sup>31</sup>Information from Deputy Registrar of Vital Statistics, Government of the Northwest Territories.

32One exception is R. E. DuWors, J. Beaman, and A. Olmstead, Studies in the Dynamics of the Residential Populations of Thirteen Canadian Cities; Phase I: Dimensions and Significance of Turnover in Community Residential Populations, Center for Settlement Studies, University of Manitoba, Series 5, Occasional Paper No. 3, Winnipeg, 1972. They suggest the use of voters lists (federal and municipal) to quantify population turnover.

33Interview with Mr. A. T. Rivett, Personnel Supervisor, Giant Mines, 20 August 1974. In other words, the mine requires 1,000 employees annually to fill its 400 full-time positions.

34Yellowknife News of the North, 21 May 1975, p. 25, quoting D. R. DeLaporte, President, Giant Yellowknife Mines.

35Interview with Mr. P. Smith, Personnel Supervisor and Paymaster, Con Mines, 23 August 1974.

36A. E. Moss, "Design of Northern Communities", paper presented at the Third Northern Resource Conference, Whitehorse, 10 April 1969. p. 3.

37Government of the Northwest Territories, Report of the Task Force on Personnel Policy and Management, Yellowknife, August 1974, p. 2. The 1974 figure is from "N.W.T. Government Personnel: 775 Employees (31 per cent) Left Last Year," Yellowknife News of the North, 18 June 1975, p. 23.

38Yellowknife News of the North, 18 June 1975, p. 23.

39Government of the Northwest Territories, Report of the Task Force, p. 2.

40Interview with Mr. G. Dewhirst, Dept. of Administration, Government of the Northwest Territories, 19 August 1974.

41Interview with Assistant Manager, Yellowknife Inn, 20 August 1974.

42Yellowknife News of the North, 21 August 1974, p. 3.

43As classified by Jan Nightingale, Occupational Analysis of the Mining Industry in the Northwest Territories, Department of Indian Affairs and Northern Development, Ottawa, 1968.

44There have been twenty-five fatal mine accidents in Yellowknife mines since 1950.

45Moss, p. 4.

46Interview with S/Sgt. Pringle, R.C.M.P. Yellowknife Detachment, 11 July 1974.

47Real Jubinville, Correction Services in the Northwest Territories: Report of the Study Committee, Department of Social Development, Northwest Territories, and Department of the Solicitor General of Canada, February 1971, Table 6, pp. 50-51.

48Gemini North Ltd., for Canadian Arctic Gas Pipeline Ltd., Social and Economic Impact of Proposed Arctic Gas Pipeline in Northern Canada, 7 vols., Vol. 7 (Appendices), Tables 7.40 to 7.45.

49Jubinville, p. 53; Gemini North Ltd., Impact of Arctic Gas Pipeline, Vol. 7, Table 7.45.

50Palys, p. 108.

51Data from S/Sgt. Pringle, R.C.M.P. Yellowknife Detachment, 11 July 1974.

52This region also includes the smaller settlements on the north side of Great Slave Lake.

53K. L. McReynolds and Associates, Situational Appraisal of Regional Correction Need, for Government of Northwest Territories, Willowdale, Ont., January 1972, p. 25.

54Ibid., p. 27.

55From data supplied by Mr. C. T. Wilkins, Chief of Corrections Department of Social Development, Government of the Northwest Territories, July 1974.

56Ibid.

57Nineteenth Annual Report of the Liquor Control System, Govt. of N.W.T., December, 1973.

58Seventeenth Annual Report of the Liquor Control System, Govt. of N.W.T., December 1971.

59Gemini North Ltd., Impact of Arctic Gas Pipeline, Vol. 6, p. 200.

60From data presented on behalf of Glenmore Investments, who have interests in the Explorer Hotel, at Liquor Licensing Board hearing in the Latham Island Community Centre, 6 June 1974. An application was being made to open a licensed establishment on Latham Island; it was rejected by the Board, partly because of objections filed by the Yellowknife Band Council and Latham Island residents.

61Ibid.

62Gemini North Ltd., Impact of Arctic Gas Pipeline, Vol. 2, pp. 566-67.

63Ibid., Vol. 2, p. 775.

64Of course, one cannot conclude that Yellowknife has one-seventh the drinking problems of Fort Simpson. However, having been employed in bars in both communities, this author can state that there is a remarkable difference in the degree of alcohol abuse.

65 Estimate based on personal observation, and reinforced by data in Statistics Canada, Consumer Income and Expenditure Division, "Urban Family Expenditure," Table I, pp. 12-13.

66 Yellowknife Branch of the Consumers Association of Canada. "Report on the 1973 Food Price Survey," Yellowknife, February 1974, p. 13.

67 Ibid., pp. 36-37.

68 Gemini North Ltd., Impact of Arctic Gas Pipeline, Vol. 2, Section 7.4.

69 Department of Social Development, Government of the Northwest Territories, "Monthly Social Assistance Expenditures by Cause of Need: Fort Smith Region, Settlement of Yellowknife and Yellowknife Indian Village, August 1974."

70 Ibid.

71 Gemini North Ltd., Impact of Arctic Gas Pipeline, vol. 2, p. 467-68.

72 Interview with Mr. R. A. Davidson, Assistant Director, Department of Social Development, Government of the Northwest Territories, 19 August 1974.

73 Indeed, one territorial government employee with whom this author became acquainted somehow ended up paying no rent for a year, despite his insistence that he owed it.

74 "Comparative Study of Total Pay Package: Northwest Territories, Yukon Territory, and Federal Government Employees in the North," Program Management Evaluation Team, Department of Indian Affairs and Northern Development, Ottawa, October 1971, Appendix C.

75 "Survey of Salaries and Subsidies: Federal and Territorial Governments and Private Industry, Yellowknife, Northwest Territories," 5 secs., Department of Indian Affairs and Northern Development, Yellowknife, February 1974, sec. 2, p. 2.

76 Ibid., sec. 2, p. 3.

77 "Comparative Study of Total Pay Package," Appendix A.

78 "Survey of Salaries and Subsidies," sec. 4, "Employee Salary and Incentive Survey," pp. 5-17.

79 Flax; Palys; Palmer and St. Pierre; D. M. Smith; U.S. Dept. of Health, Education and Welfare, Toward a Social Report.

80 Palys, pp. 107-108.

<sup>81</sup>F. P. Stutz, in Review of D. M. Smith, Annals of the Association of American Geographers 64 (March 1974): 159.

<sup>82</sup>D. M. Smith, p. 54.

<sup>83</sup>Ibid., p. 7.

<sup>84</sup>Gordon W. Allport, Personality and Social Encounter (Boston: Beacon Press, 1960), p. 95.

<sup>85</sup>Palys, p. 14.

CHAPTER VI  
COMMUNITY AND NEIGHBOURHOOD EVALUATION

Sampling Procedure and Questionnaire

The analysis of quality of life reported in this chapter is derived from information contained in interviews conducted in seven of Yellowknife's ten residential areas. A total of 221 people granted an average of half an hour of their time towards the study, described in the letter of introduction as being concerned with "residents' ideas of life in Yellowknife; hopefully the results will give planners here a better understanding of the needs of the community."

The sampling procedure was systematic, stratified into the seven sub-groups on the basis of residential location. The selection process involved estimating the number of households in each residential area, determining the sample interval by dividing this number by 70 (which would lead to a sample size of 35 given a 50 percent response rate), designating the number of prospective respondents in subdistricts (usually blocks), and systematically selecting households within each block. The covering letter<sup>1</sup> was delivered to each chosen household from one to three days in advance of the interview; it served the purpose of familiarizing prospective respondents with the project. The response rate, estimated at between 60 and 65 percent, varied little among the seven neighbourhoods. The rate of refusal was deemed satisfactorily low under the circumstances: many northerners regard researchers from the South with a certain amount of scepticism;<sup>2</sup> in addition, on a few occasions this in-

interviewer literally followed closely on the heels of either federal enumerators or municipal census takers. The letter of introduction seemed to increase the response rate by interesting many in the project, and some local media publicity may have performed a similar function. Moreover, most of the interviews in Old Town - Latham Island were carried out by two assistants who had both until recently lived in the area and were acquainted with many of the residents.

In general, the sample appears reasonably representative of the adult population living in the seven residential areas (see Chapter III, pp. 41-2 ). Only two major problems presented themselves. Five of the ten respondents living on Lot 500 spoke only Dogrib; although the interviewer attempted to translate most questions, some were skipped. The low level of response from those living in the Con bunkhouses, home to about 25 percent of the adult population at the townsite yet who constituted only 3 percent of the Con sample, has been discussed in Chapter III.

The initial interview schedule was pre-tested and subsequently discussed with several people, including young transients and long-term residents, who had expressed interest in the study. After modifications suggested by this pilot work were completed, the interview schedule, consisting of thirty-three questions, was printed locally. One map, eight photographs, and six cards--each of which presented the respondent with choices<sup>3</sup>--were also required. After systematic household selection and covering letter delivery, an adult member of every second household which received a letter was interviewed; when a prospective respondent declined, the household following immediately on the list was interviewed. Those absent were called upon at another time. All interviews were carried out in evening hours in July and August 1974 at the respondent's home,

except when another time or place was suggested. Interviews were between twenty minutes and an hour in duration. Of the 221 questionnaires completed, 141 were administered by this author; the remaining 80 were conducted by four locally-hired assistants with whom this author was acquainted beforehand.

The interview schedule itself solicited information of four types. Data concerning respondents' social, economic, demographic, and residential characteristics (questions one through seven, and twenty-eight through thirty-two) have been presented in Table 3.5. Major aspects of Yellowknife's social geography were gleaned from results to questions ten, fifteen and twenty-seven. Two open-ended questions permitted the respondent to comment freely on what he felt to be the worst problems in the city (question sixteen), and any other aspect of living in Yellowknife he wished to discuss (question thirty-three). The remainder of the schedule (questions eight, eleven to fourteen, and seventeen through twenty-six) dealt with the interviewee's perceptions of quality of life in the city. The results of these fourteen questions, presented at both the city and neighbourhood level, form the basis of the analysis in this chapter.

### Satisfaction with the Community

The quality of Yellowknife as a place to live is a function of resident satisfaction. Conversely, dissatisfaction suggests that certain requirements that constitute liveability may be deficient in or missing from the urban environment.

Five Likert statements (questions 17, 18, 20, 23 and 25) designed to indicate satisfaction with the community were read to respondents,

who were requested to pick the answer that was most representative of their feelings towards the item from a five point scale ranging from strongly agree to strongly disagree. Table 6.1 presents the mean scores and their standard deviations for each statement at the neighbourhood and city level. A value of 3.00 represents a neutral or "not sure" response. A low mean score indicates a negative, unfavourable attitude towards the statement; the closer the value is to 5.00, the more strong is the positive attitude reflected. Also included in Table 6.1 is the response to question 21, designed to elicit residents' attitudes towards metropolitan areas.

In response to questionnaire item 17, "Generally, I'm happy with Yellowknife as a place to live," the mean of 3.83 indicates that residents in aggregate are slightly on the neutral side of the "agree" option; a low level of dissatisfaction is expressed in response to this item. Less than 18 percent (29 of 221) claimed to disagree or strongly disagree with it, while a further 6 percent (14 of 221) were neutral. Sixty-three percent (139 of 221) agreed with the statement. At the neighbourhood scale, Central Trailer Court residents expressed lower average satisfaction with Yellowknife, as did their counterparts in Northland. Those living in School Draw, and Old Town - Latham Island had the highest levels of satisfaction with the city as a place to live.

As might be expected, a strong negative relationship exists between community satisfaction and intention to move ( $r = -0.212$ ,<sup>4</sup> 200 d.f., significant at 0.01 level--see correlation matrix, Table 6.2). Those who are dissatisfied with Yellowknife, as expressed in response to this Likert item, are more likely to have plans to leave the city in the next few years. The relationship between length of residence and community

TABLE 6.1

## COMMUNITY EVALUATION: LIKERT ITEMS

	Generally Happy with Yellowknife 1 = SD 5 = SA	Transients Disrupting Community 1 = SA 5 = SD	Yellowknife Has More Problems 1 = SA 5 = SD	Yellowknife Growing Too Fast 1 = SA 5 = SD	Yellowknife Best Commun- ity in N.W.T. 1 = SD 5 = SA	Big Cities Noisy and Crowded 1 = SD 5 = SA
Central Trailers						
Mean	3.40	3.60	3.32	3.64	3.72	3.80
Std. Dev.	0.96	0.91	1.18	0.81	0.98	1.22
Northland						
Mean	3.66	3.93	3.53	3.20	3.90	4.10
Std. Dev.	1.12	0.91	1.01	1.10	1.18	1.06
School Draw						
Mean	4.09	3.72	3.84	3.31	3.72	4.00
Std. Dev.	0.73	0.85	0.88	0.93	0.85	1.04
Con site						
Mean	3.76	3.64	3.03	2.97	3.72	3.90
Std. Dev.	0.64	0.91	1.09	1.24	0.75	1.14
Matonabee						
Mean	3.87	3.90	3.77	3.47	3.57	3.87
Std. Dev.	0.86	0.55	0.90	0.90	1.07	1.16
New Town						
Mean	3.75	3.56	3.63	3.02	3.27	3.98
Std. Dev.	1.04	1.05	1.07	0.99	1.12	0.99
Old Town - Latham Is.						
Mean	4.18	2.97	3.53	2.26	3.32	4.18
Std. Dev.	0.76	1.36	1.05	1.08	1.20	0.94
YELLOWKNIFE						
Mean	3.83	3.60	3.53	3.10	3.58	3.98
Std. Dev.	0.91	1.01	1.04	1.08	1.05	1.06
Range in Means (highest - lowest)	0.78	0.96	0.81	1.38	0.63	0.38

TABLE 6.2

## CORRELATION MATRIX OF SELECTED QUESTIONNAIRE ITEMS

	<u>L. Res.</u>		<u>Move</u>					
1. Length of residence	1.000							
5. Likely to move	.371	1.000		<u>Left</u>				
7. Times left	-.116	-.007	1.000		<u>Clubs</u>			
9. No. of clubs	.091	-.004	.063	1.000		<u>Happy</u>		
17. Happy with YK.	.093	.212	.088	.057	1.000		<u>Trans.</u>	
18. Transients	-.227	-.164	-.090	.175	-.025	1.000		<u>Advise</u>
19. Advise neigh.	.155	.149	.006	-.147	.159	-.224	1.000	
20. More problems	.072	.016	.047	.006	.172	.118	-.068	
21. Big cities crowded	.138	.255	-.116	-.008	.217	-.069	.070	
22. Children in neigh.	.088	.173	-.054	-.014	.234	.121	.287	
23. YK. growing fast	-.329	-.165	.067	.003	.053	.347	-.188	
24. Another part	-.106	.028	.010	.050	.244	.173	.196	
25. YK. best in North	.177	.202	-.108	.035	.172	.024	.025	
26. Time with neighs.	.144	.064	-.031	.110	.127	-.128	.137	
29. Education	-.383	-.214	.178	.146	.000	.260	-.142	
30. Age	.447	.228	-.082	.137	-.051	-.055	.059	
32. Income	-.250	.039	.125	.206	.098	.305	-.068	

NOTES: At 200 degrees of freedom, significant value of correlation coefficient ( $r$ ) at 5 percent level is 0.138 ( $t = 1.97$ ); at 1 percent level, value of  $r$  is 0.181 ( $t = 2.60$ ).

Some of the signs preceding these correlation coefficients have been changed in the text to aid the reader in interpreting relationships. For example, the correlation coefficient between community satisfaction (Q. 17) and intention to move (Q. 5; see Table 5.1) appears in the matrix as a positive one; this is because the response to the interval choice "very likely to move" was assigned a value of 1, and the "not at all likely" option was quantified as 5. For the sake of clarity, this

TABLE 6.2--Continued

<u>Probs.</u>									
1.000	<u>Cities</u>								
.070	1.000	<u>Child.</u>							
.004	.048	1.000	<u>Grow</u>						
.119	-.168	.050	1.000	<u>Part</u>					
-.001	.071	.336	.116	1.000	<u>Best</u>				
.183	.159	.180	.246	.062	1.000	<u>Neighs.</u>			
.032	-.051	.039	-.026	.043	.034	1.000	<u>Educ.</u>		
.066	-.112	.014	.201	.233	-.082	-.066	1.000	<u>Age</u>	
-.056	.049	.212	-.118	.036	.067	.059	-.207	1.000	<u>Income</u>
.046	.063	.207	.263	.327	.080	-.039	.439	.113	1.000

appears in the text as a negative relationship: the greater the community satisfaction, the lower is the intention to move. See Tables 6.1 and 6.6 for the values assigned to the Likert intervals, and the appendix for the complete wording of the questions.

satisfaction, although positive, is not significant ( $r = +0.093$ ). Similarly, there is no significant relationship between the tendency to belong to community organizations and community satisfaction (chi square = 22.6, 32 d.f., significance = 0.89), or dwelling type and community satisfaction (chi square = 14.2, 12 d.f., significance = 0.29). The notion that women are more susceptible to "northern hysteria" does not appear to hold in Yellowknife, as again there is no significant relationship between sex and community satisfaction (chi square = 3.4, 4 d.f., significance = 0.49).

It is often felt by many southern Canadians living in metropolitan areas that they could not adjust to life in the North, that these communities should be left to "northern frontiersmen," or those from small southern towns who might more easily adapt to a non-metropolitan environment such as that found in Yellowknife. This idea that Yellowknife residents with southern urban backgrounds tend to be less satisfied with the community is not supported by chi square analysis; at the very least, there is no pronounced variation in community satisfaction among groups with differing residential histories. Indeed, from data presented in Table 6.3, there is the suggestion that the reverse might be true. People with previous places of residence classed as "northern" (mostly smaller settlements in the Northwest Territories and Yukon, but also towns along Canada's northern resource frontier) appear least likely to be satisfied with Yellowknife, although to keep the discussion in perspective, those falling into this latter classification that possess favourable attitudes towards the community outnumber those with unfavourable or neutral attitudes by a ratio of 2.5 to 1.0. Respondents with non-urban southern backgrounds were also more apt to react to this Likert item with negative or

neutral responses, though not quite to the same degree as those who had previously lived in other northern communities. Yellowknife residents whose background was classed as partly metropolitan<sup>5</sup> or exclusively metropolitan were least likely to express unfavourable or neutral feelings towards Yellowknife.

TABLE 6.3

## RESIDENT ORIGIN AND COMMUNITY SATISFACTION

Resident Origin	"Happy with Yellowknife"					Row Total
	S.D. (1)	D. (2)	N. (3)	A. (4)	S.A. (5)	
Not Classified	0	0	0	2	2	4
Metropolitan	2	8	0	47	11	68
Partly Metropolitan	1	3	1	20	13	38
Non-urban southern	0	5	6	31	4	46
Northern	1	8	7	30	9	55
Non-North American	0	1	0	9	0	10
Column Total	4	25	14	139	39	221

Chi Square = 31.28, 20 d.f., Significance = 0.05

Community satisfaction, as measured by this Likert item of happiness, is significantly related to attitudes towards metropolitan areas. Respondents rated the statement "Big cities are too noisy and crowded for me" on the five point scale; the mean result (Table 6.1) suggests that most Yellowknife residents regard large cities with disfavour. Moreover, those who tend to dislike big cities also tend to enjoy living

in Yellowknife. ( $r = +0.217$ ; chi square = 30.9, 16 d.f., significance = 0.02). At the risk of overgeneralization, it appears from these statistical relationships that the resident most likely to be satisfied with Yellowknife is one from a southern urban area, who at some stage (before or after his move) became increasingly disenchanted with some aspects of metropolitan life.

To elicit residential attitudes towards the high degree of transiency in Yellowknife's population, the Likert statement "All the transients and tourists in town these days are disrupting the community life for the more permanent residents" was presented. A mean response of 3.60 indicates that Yellowknife residents tended to disagree with the statement. Those living in Old Town - Latham Island, whose length of residence is the highest of the seven neighbourhoods, are most critical of transients and tourists as a disruptive influence, while residents of Northland and Matonabee generally did not perceive transiency to be as great a problem. It appears from the correlation matrix ( $r = +0.227$ ) that longer-term residents view transiency in the community as more of a liability than short-term residents, who are often transients themselves. In addition, those who intend to leave Yellowknife in the near future perceive transiency as less of a problem than those intending to stay. ( $r = -0.164$ ). Tolerance of transients and tourists appears to vary directly with socio-economic status (education  $r = +0.260$ , income  $r = +0.305$ ); in a sense these may be spurious relationships, since many of the city's higher status residents are also recent arrivals.

Mean attitude response to item 20, "Yellowknife is a community with more problems than other places I've been to" was again approximately mid-way between "neutral" and "disagree". School Draw residents, with

a mean response of 3.84, were least likely to perceive the city as one with a high number of problems, while Con townsite residents' average response was neutral. Those who were apt to express a high degree of overall community satisfaction also tended to view Yellowknife as a city with fewer problems than other places they had experienced ( $r = -0.172$ ).

Response to the statement "Yellowknife is growing too fast for my liking" was slightly on the positive side of neutral (mean = 3.10). Given the image of the prosperous northern "boom town", this is not as great as might be expected. This item produced the greatest range among neighbourhoods. Old Town - Latham Island residents, and to a lesser extent Con residents, perceive the city as growing too quickly, while Central Trailer Court and Matonabee residents responded most positively to the rapid growth occurring. Chi square analysis of dwelling type against growth attitude show that those in single family houses are more likely to perceive growth unfavourably, as opposed to those in mobile homes, apartments or rowhouses (chi square = 23.1, 12 d.f., significance = 0.03). Also, those that have lived in the community the longest regard rapid growth with greatest disfavour ( $r = +0.329$ ). Perhaps many of these residents feel that Yellowknife will lose what they perceive as its "small town" lifestyle: those who express a negative attitude towards growth tend to dislike big cities ( $r = +0.168$ ). Others may be apprehensive that growth will bring about more transiency ( $r = +0.347$ ). But it is important to note that there is no significant correlation between the growth attitude and overall community satisfaction.

The fifth Likert statement dealing with the community attempted to compare perceived quality of life in Yellowknife with that found in other communities in the Northwest Territories. "Compared with other places

in the N.W.T. that I've been to or heard about, Yellowknife is the best place to live." The mean score of 3.58 tends towards the neutral side of the "agree" option. New Town and Old Town - Latham Island residents were least emphatic about Yellowknife as being the most satisfactory community in the Territories, while Northland Trailer Park residents were most emphatic. From Table 6.2, those who tend to respond favourably to this item are more likely to perceive Yellowknife as having fewer problems than other communities they have experienced ( $r = +0.183$ ) and are more enthusiastic about the city's rapid growth ( $r = +0.246$ ). Those residents who have lived in Yellowknife for a greater length of time ( $r = +0.177$ ) and those who are least likely to move ( $r = -0.202$ ) also tend to be of the opinion that their city is the best place to live in the Territories. There is also a moderately significant correlation between this item and overall community satisfaction ( $r = +0.172$ ).

In addition to indirectly measuring liveability of the community using the Likert items, two further questions elicited the factors of liveability by presenting qualities which contribute towards a positive or negative evaluation of the urban environment. These two questions (numbers 8 and 13) asked respondents to choose from two sets of criteria which constituted their sources of community satisfaction and dissatisfaction. The list of evaluative criteria<sup>6</sup> was derived from informal interviews and observation in the city, and a review of related literature.<sup>7</sup>

Table 6.4 presents sources of community satisfaction in terms of overall frequencies and percentages for Yellowknife and its constituent neighbourhoods. The list of criteria was sufficiently exhaustive, as only 4 percent of the responses fell into the "other" category. The

TABLE 6.4

## SOURCES OF COMMUNITY SATISFACTION

Source	Yellowknife Total		Central Trailers		Northland Trailers		School Draw		Con Site		Matonabee		New Town		O. T.-Latham I.	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Site, Scenery and Clean Air	92	43	10	42	16	55	14	47	8	27	14	44	14	35	16	50
Pace of Life	90	42	8	33	11	38	13	44	12	40	17	54	18	45	11	34
The People	85	39	15	62	10	34	5	17	16	53	13	41	12	30	14	44
Your Job	46	21	2	8	7	24	7	24	6	20	16	19	13	33	5	16
Size of the Town	35	16	3	12	3	10	6	20	6	20	7	22	7	17	3	9
The Climate	28	13	3	12	1	3	6	20	2	7	2	6	5	12	9	28
Sports and Recreation	20	9	2	8	3	10	5	17	4	13	3	10	2	5	1	3
Your Wages	17	8	4	16	4	14	1	3	3	10	1	3	4	10	0	0
Entertainment and Clubs	4	2	0	0	0	0	0	0	1	3	0	0	1	3	2	6
The Cleanliness	4	2	0	0	0	0	1	3	1	3	0	0	2	5	0	0
Other	8	4	1	4	1	3	1	3	1	3	0	0	2	5	2	6
Nothing	3	1	0	0	2	7	0	0	0	0	0	0	0	0	1	3
TOTAL	431	200	48		58		59		60		63		80		64	

leading amenities associated with living in Yellowknife, chosen by over one-third of all respondents, include the site, scenery and clean air, the pace of life in the city, and the people themselves. The respondent's job, the size of the town, and the climate are considered to be positive liveability criteria by less than one-fifth of all interviewees, while sports and recreation facilities, wages, entertainment and community clubs, and city cleanliness were perceived by a small minority as contributing to community satisfaction. Respondents' sources of community dissatisfaction are presented in Table 6.5. The housing problem and the high northern cost of living were each mentioned by over one-third of those interviewed, and one-quarter considered access to cities in the South,<sup>8</sup> and entertainment and recreation facilities, to be sufficiently deficient to warrant selection. In the next group were communications (radio, television, telephones), public utilities, and access to other northern communities. Fewer than 7 percent perceived medical facilities, stores and shops, social services, law and order, educational facilities, or churches to be notable sources of dissatisfaction in Yellowknife.

Generalizing from these rankings, Yellowknife's physical environment and human resources appear attractive to many, as is the generally slower pace of life. Leisure and recreation categories are low as sources of satisfaction, and rank fourth as criteria most in need of improvement. The high cost of living, and the high cost of leaving Yellowknife for the South have been borne out to be major sources of dissatisfaction, as suggested by the deductive analysis in the previous chapter. However, public order is not perceived as a serious problem, despite the statistics which indicate otherwise.

There are some important variations among different residential

TABLE 6.5

## SOURCES OF COMMUNITY DISSATISFACTION

Source	Yellowknife Total		Central Trailers		Northland Trailers		School Draw		Con Site		Matonabee		New Town		O. T.-Latham I.	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Housing	78	38	12	48	11	38	7	24	9	35	11	35	14	38	14	44
Income in relation to cost of living	72	35	11	44	13	45	9	31	9	35	11	35	13	36	6	19
Access to cities in the South	58	28	6	24	14	48	11	38	9	35	9	29	9	25	0	0
Entertainment and Recreation	50	24	6	24	5	17	9	31	6	24	6	19	8	22	10	32
Communications (eg. radio and TV)	40	19	2	8	6	21	7	24	4	16	8	25	5	14	8	25
Public Utilities (eg. sewer, water, roads)	35	17	4	16	5	17	4	14	4	16	3	10	4	11	11	35
Access to other northern communities	26	12	2	8	2	7	4	14	3	12	5	16	8	22	2	6
Medical facilities	15	7	3	12	2	7	1	3	2	8	4	13	3	8	0	0
Stores and shops	12	6	1	4	0	0	1	3	2	8	3	10	2	5	3	10
Social Services	11	5	0	0	0	0	2	7	0	0	1	3	3	8	5	16
Law and Order	10	5	3	12	0	0	1	3	3	12	0	0	1	3	2	6
Educational facilities	9	4	0	0	0	0	2	7	0	0	2	6	3	8	2	6
Churches	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

groups that concern the relative importance of certain qualities of liveability, although a strong degree of consensus is evident within most quality categories. Perhaps the most interesting variation occurs in the proportion of residents from each neighbourhood who consider housing to be one of the two items most in need of improvement. Relatively fewer respondents living in School Draw, Matonabee and Con--the three areas with the greatest proportion of residents living in subsidized housing<sup>9</sup>--evaluated Yellowknife's housing situation as being in greatest need of rectification, whereas those residents of Old Town - Latham Island, the two trailer courts, and New Town mentioned housing with greater frequency.<sup>10</sup> (Spearman's  $r$  between housing concern and proportion with a housing subsidy in the seven neighbourhoods is  $-0.84$ .)

Sources of community satisfaction and dissatisfaction for Old Town - Latham Island residents differ markedly from most other people in Yellowknife. The tables neatly reveal the personalities of many residents of this neighbourhood. Twenty-eight percent derive pleasure from the city's climate, compared to a city average of 13 percent. Financial concerns are not paramount to many living there; although no one mentioned wages as a source of satisfaction, only 19 percent complained about the high cost of northern living. At the other extreme are the residents of the two trailer courts, who were more likely to select both "wages" as a source of satisfaction and "income in relation to the cost of living here" as a source of dissatisfaction. No one living in Old Town - Latham Island was concerned about access to the South, compared with almost half of the Northland residents. Residents of this area do have some distinctive needs, however. It is not surprising that 35 percent felt public utilities to be a major problem, as only one road in the Old Town is

paved, and no piped water or sewer lines exist.<sup>11</sup> Of the eleven interviewees who placed priority on improving community social services, five lived in the Old Town.

### Satisfaction with the Neighbourhood

It has been postulated by several authors that people place just as much value on the environmental quality of their neighbourhood as they do at the scale of the entire community.<sup>12</sup> The concept of the neighbourhood has been shown to be an important one in Yellowknife, in spite of its small size. Also, the previous section has demonstrated that differing attitudes exist among residents of different neighbourhoods regarding what is required to provide a higher quality of life. In this section, results of four Likert statements concerned with residential area evaluations are discussed and related to their residential characteristics. Factors perceived as important constituents of a desirable neighbourhood environment in Yellowknife are then presented and related to the city's existing residential areas.

Questions 19, 22, 24 and 26 are Likert statements designed to measure neighbourhood satisfaction; results are presented in Table 6.6. As with the other Likert items, the higher the score on the scale of five, the more positive is the attitude towards the item. The statement "If someone I knew were moving to Yellowknife, I'd advise them to live in my neighbourhood if they could," elicited a neutral response at the community level (mean = 3.10). As with all questions dealing with the neighbourhood, there was a wide range among neighbourhoods in mean responses. Central Trailer Court residents were most unlikely to recommend the area to others (mean = 2.24), while Old Town - Latham Island residents appear

TABLE 6.6

## NEIGHBOURHOOD EVALUATION: LIKERT ITEMS

	Advise Others	Neighbourhood	Happier in	Don't Spend	Index of Neighbour-	
	to Live in	Good for	Another Part	Much Time	hood Satisfaction	
	Neighbourhood	Children	of Y'knife	With Neigh.'s	(mean of Likert	means)
	1 = SD	1 = SD	1 = SA	1 = SA	Mean	Rank*
	5 = SA	5 = SA	5 = SD	5 = SD		
Central Trailers						
Mean	2.24	2.64	2.72	2.00	2.40	1
Std. Dev.	1.01	1.07	1.02	1.19		
Northland						
Mean	3.20	3.53	3.30	2.70	3.18	3
Std. Dev.	0.80	0.97	0.92	1.05		
School Draw						
Mean	3.06	3.65	3.94	2.84	3.37	5
Std. Dev.	1.01	1.00	1.04	0.99		
Con site						
Mean	3.12	4.24	3.82	3.10	3.57	7
Std. Dev.	0.90	0.69	0.86	1.05		
Matonabee						
Mean	3.36	3.66	3.57	3.20	3.45	6
Std. Dev.	1.03	0.88	0.93	1.13		
New Town						
Mean	3.00	3.36	3.34	2.68	3.09	2
Std. Dev.	0.95	1.07	0.99	1.17		
Old Town - Latham I.						
Mean	3.59	3.26	3.35	3.09	3.32	4
Std. Dev.	1.02	1.16	1.45	1.20		
(exclud. Lot 500:						
Mean)	(3.46)	(3.42)	(4.12)	(2.67)	(3.41)	
YELLOWKNIFE:						
Mean	3.10	3.49	3.44	2.82	3.21	
Std. Dev.	1.02	1.07	1.10	1.15		
Range in Means						
(highest - lowest)	1.35	1.60	1.22	1.20	1.17	

\*Rank: 1 = Low

most enthusiastic about advising others to live there (mean = 3.59). Returning to the aggregate community response to this item, a strong relationship exists between those who feel at home in their area (question 10, see Chapter IV) and those who would advise others to live there (chi square = 26.13, 10 d.f., significance = 0.004). It also appears that many residents are not satisfied with the neighbourhood in which they first live upon arrival in Yellowknife: those that have previously lived in another part of the city (question 4) are much more likely to feel at home in the area to which they have subsequently moved (chi square = 11.67, 2 d.f., significance = 0.003). Given the wide range of response at the neighbourhood level, it is not surprising to find a strong relationship between dwelling type and neighbourhood recommendation (chi square = 32.15, 15 d.f., significance = 0.006): those in single family houses are more apt to agree with the item, followed by those living in apartments. The 63 respondents in mobile homes, and the 18 in row housing, were least likely to advise others to live in their neighbourhood. There was, however, no significant relationship between sex and neighbourhood advocacy (chi square = 5.69, 5 d.f., significance = 0.35). From the correlation matrix (Table 6.2) those who would tend to advise others to live in their area are longer-term residents ( $r = +0.155$ ), less likely to move away from the city ( $r = -0.149$ ), and express greater levels of community satisfaction ( $r = +0.159$ ). They also tend to be more critical of both community transiency ( $r = +0.224$ ) and Yellowknife's rapid growth ( $r = +0.188$ ). At the risk of over-interpretation, perhaps those who wish to see Yellowknife continue to expand do so in part because they feel growth may bring improved residential developments for themselves.

A community mean response of 3.49 to the statement "Compared with

other areas in town, my neighbourhood is a good place to bring up children" indicates a mildly positive attitude. The neighbourhood range of 1.60 is again very high. Con townsite residents perceive their neighbourhood as best for children (mean = 4.24); again, the Central Trailer Court residents had the dubious distinction of rating their area most unfavourable for children (mean = 2.64). Those who tend to respond favourably to this statement also have greater levels of community satisfaction ( $r = +0.234$ ). In addition, older, higher-income respondents are more apt to perceive the area as beneficial for children (age  $r = +0.212$ , income  $r = +0.207$ ); however, since their children are older, they may simply be less critical of their neighbourhood on this dimension.

The mean score of the statement, "I'd be happier living in another part of Yellowknife" was 3.44; Central Trailer Court residents were most enthusiastic about moving to another part of the city (mean = 2.72), while those living south of Lot 500 in Old Town - Latham Island, Con, and School Draw were most content to stay where they are. As with the previous two Likert items, those who tend to be happy with Yellowknife as a place to live are also more apt to be happy with their present neighbourhood ( $r = +0.244$ ). Lower income residents are significantly less satisfied with their residential environment: the higher the resident's socio-economic status, the less likely he is to wish to move to another part of the city (education  $r = -0.233$ , income  $r = -0.327$ ). Chi square analysis reveals that those who "feel at home" in their areas are less likely to be happier in another part of Yellowknife (chi square = 30.97, 10 d.f., significance = 0.0006).

The final Likert statement, "I don't spend much time with my neighbours" again results in Central Trailer Court residents scoring lowest

(mean = 2.00). Those living in Old Town - Latham Island, Con and Matonabee claim to have the highest degree of neighbouring visits. The tendency to spend time with neighbours varies directly with length of residence in the city ( $r = 0.144$ ).

To summarize this section, it appears that more dissatisfaction is reported when the analysis shifts from the community to the neighbourhood: mean responses to the four neighbourhood items are lower than those for the five community-oriented statements. Among the seven neighbourhoods there is a much wider range in the scores of items dealing with the neighbourhood. Moreover, a strong degree of consistency among responses to the neighbourhood items is apparent, both at the level of the individual respondent,<sup>13</sup> and when responses are aggregated to the neighbourhood level.<sup>14</sup> Therefore, the mean of the four Likert statement means was determined for each neighbourhood; the result is a relative measure of neighbourhood satisfaction (Table 6.6). Lowest levels of neighbourhood satisfaction appear on the Central Trailer Courts whose respondents ranked their area lowest on all four items. New Town and Northland residents followed with moderately low evaluations of their neighbourhoods. Those in Old Town - Latham Island and the two new subdivisions appear to be quite satisfied with their area. Counter-intuitively, the highest levels of neighbourhood satisfaction as determined by this relatively crude index are found in the Con townsite; recall, however, that the Con sample under-represents single men in the bunkhouses, and emphasizes more settled families. Nevertheless, this finding is intriguing.

Some clues to the reasons behind this diversity in the levels of neighbourhood satisfaction can be found in Table 6.7. Those areas whose residents demonstrated a high degree of neighbourhood identification

were evaluated more highly than those in which the residents appeared unable to identify with their area (Spearman's  $r = +0.79$ ,  $t = 1.92$ , significant at 5% level). To a lesser extent, neighbourhood satisfaction is also related to their residents' desire to stay in the area (Spearman's  $r = +0.64$ ,  $t = 1.58$ , significant at 10% level). There is however, no significant correlation between neighbourhood satisfaction and the degree of social interaction occurring exclusively within the neighbourhood, as measured by the proportion of all social contacts found within the area (Spearman's  $r = +0.11$ ).

TABLE 6.7  
MEASURES OF NEIGHBOURHOOD IDENTIFICATION

Residential Area	% Defining Neighbourhood (Question 10)	% Wishing to Stay in Present Neighbourhood (Question 11)*	% of all Contacts Within Neighbourhood (Question 15)
Central Trailers	28%	12%	31.6%
Northland T. P.	60	17	24.1
School Draw	63	72	29.3
Con Site	76	71	46.3
Matonabee	70	57	45.1
New Town	44	54	62.7
Old Town - Latham Is. (excluding Lot 500)	82 (75%)	82 (88%)	59.2

\*Some respondents expressed a desire to move from their present dwelling into another part of their neighbourhood, suggesting dissatisfaction with their housing but satisfaction with the area. These included two in New Town, six in Matonabee (all row house residents) and ten in Old Town - Latham Island.

In Yellowknife, satisfaction with one's neighbourhood appears to be the cumulative result of the congruence of two components of spatial experience: the ability to identify with a "home turf" and a perception of the actual neighbourhood environment as corresponding to the image of the ideal neighbourhood environment. In Old Town - Latham Island (excluding Lot 500), and at the Con site (excluding the bunkhouses), familiarity with the surroundings and a sense of belonging to the area seem to compensate for any perceived lack of neighbourhood amenities.<sup>15</sup> The new subdivisions of School Draw and Matonabee, home to many government employees originally from the South, most closely approximate the suburban residential areas found in southern cities. Apparently these provide a close correspondence to what most of their residents consider a desirable neighbourhood--yet would be foreign to the longer-term residents of Con or Old Town - Latham Island:

When I saw the first houses going up in School Draw, I said to myself, "here comes Scarborough." Suburban life standards from the South are invading the North. I could never live in School Draw. (Latham Island resident)

It is the residents of mobile homes, especially those in the Central Trailer Courts, whose image of the ideal neighbourhood is least fulfilled. Their degree of territorial identification is low, as is the proportion who would wish to stay in their trailer court if they could freely choose a home in the city. Consider this statement by a resident of the Old Dump Trailer Court, one of the four Central trailer courts:

I live on top of the old city dump: this is a terrible area of town. You have to have confidence in where you live. I bought this trailer out of desperation because there was nothing else. My grandchildren play with beer bottles in this dump. There's an old fridge with the door still on it; I told the court owner about it, but he's done nothing. In fact, I haven't seen the landlord yet.

A newly-arrived resident of Northland stated:

Northland's just a place to stay. I'd like to buy a lot somewhere else, but even if I could afford it, they probably wouldn't let me put my trailer on it. The only reason I got into Northland right away is that my boss happens to own it. If you think that's corrupt, just look at what the government does for its employees.

Satisfaction with neighbourhoods has now been assessed on the basis of their residents' images. But it has also been suggested that different residential groups have differing criteria as to what constitutes a desirable neighbourhood. Respondents were asked to choose two critical items from a list including physical amenities, social factors, and accessibility. Results appear in Table 6.8. Overall, respondents' residential area preferences are influenced by the privacy offered by the area, and the view from one's home: each was chosen by about one-third of all interviewees. Freedom from noise and dust, the general appearance of the area, friendly neighbours, spaciousness of the area, and play facilities for children ranked next as important neighbourhood qualities. Accessibility factors generally received low priority. Cleanliness and newness of the respondents' optimal residential area were each perceived as important by a mere 4 percent.

As with Tables 6.4 and 6.5, there is a fair amount of consistency to responses among the seven neighbourhoods, but variations do exist which reflect differing physical and social conditions and issues occurring in each neighbourhood. Northland residents, for example, do not consider "views" as an important criterion. The neighbourhood issue of children walking to school also surfaces: Northland residents were twice as likely to select accessibility to schools as a notable quality item. School Draw residents are more apt to search for a neighbourhood with low dust and noise levels; they seem to be more specific in their require-

TABLE 6.8

## QUALITIES ASSOCIATED WITH IDEAL RESIDENTIAL AREA

	Yellowknife Total		Central Trailers		Northland Trailers		School Draw		Con Site		Maton- abee		New Town		O. T.- Latham I.	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Privacy of area	77	35	9	37	12	40	10	32	14	44	12	36	7	17	13	48
View from home	67	31	7	29	5	17	10	32	9	29	11	33	11	26	14	52
Free from noise and dust	49	22	5	20	6	20	11	36	9	29	5	15	9	22	4	15
General appearance	46	21	8	33	8	27	2	6	4	13	8	24	9	22	7	25
Friendly neighbours	38	17	5	20	2	7	4	13	9	29	3	9	8	19	7	25
Spaciousness of area	38	17	2	8	6	20	6	19	5	16	9	27	7	17	3	11
Play facilities for children	32	15	6	25	6	20	2	6	5	16	3	9	6	14	4	15
Close to work	30	13	3	12	3	10	7	23	5	16	2	6	8	19	2	7
Close to schools	27	12	1	4	7	23	3	10	2	6	6	18	8	19	0	0
Close to stores	18	8	2	8	1	3	2	6	1	3	3	9	9	22	0	0
Newness of area	9	4	0	0	4	13	4	13	0	0	1	3	0	0	0	0
Cleanliness of area	7	3	1	4	0	0	1	3	0	0	3	9	2	5	0	0

ments, as only 6 percent picked the catch-all "general appearance" item. Con respondents perceive friendly neighbours, freedom from noise and dust, and privacy as neighbourhood quality items. Not surprisingly, spaciousness is important to Matonabee residents: over half the respondents live in high density row houses. New Town residents appear to be more willing to trade off privacy in their ideal residential area for the three accessibility factors. Like the Con residents, those in Old Town - Latham Island place proportionately more value on area privacy and friendly neighbours than residents of the other neighbourhoods. Old Town - Latham Island residents are also most view-conscious.

Respondents were asked "Suppose you could live anywhere in Yellowknife, including of course where you are now. Where would you like to be?" Results in Table 6.9 reinforce the earlier discussion regarding perceived neighbourhood satisfaction and the criteria that help determine it. Answers were of two types--either respondents preferred to remain in their present area (i.e. Column Two of Table 6.7) or they expressed a desire to move to another neighbourhood of their choice.

Latham Island is perceived as the most desirable residential area; besides the 90 percent (19 of 21) of Latham Island respondents who wished to remain, another 34 percent (30 of 88) of those who would move from their present area chose Latham Island. The island affords those neighbourhood quality characteristics most frequently valued; although by no means home to the city's most affluent and still lacking in basic public utilities, it is a quiet area, secluded, wooded, small but with open spaces, and has many lots which command views of the lake. Evidently, many Yellowknife residents do not regard racial, social, and economic homogeneity<sup>16</sup> as a prerequisite for neighbourhood desirability; as out-

TABLE 6.9

## NEIGHBOURHOOD PREFERENCES

Residential Area	Chosen by Non-residents of Area		Residents of Area Wishing to Stay		Total	
	N.	%	N.	%	N.	%
Latham Island	30	34%	19	90%	49	24%
New Town	16	18	22	54	38	18
School Draw	8	9	23	72	31	15
Matonabee	4	5	17	57	21	10
Con Townsite	0	0	20	71	20	10
Old Town	4	5	9	63	13	6
Out of Town	11	12	. . . . .		11	5
On lake/With view	7	8	. . . . .		7	3
Northland Trailer Pk.	2	2	5	17	7	3
Forrest Park Subdiv.	6	7	. . . . .		6	3
Central Trailer Cts.	0	0	3	12	3	1
TOTAL	88	100	118		206	

NOTE: Of the remaining fifteen interviewees, five said they would like to live anywhere provided they had a house, two wished for privacy, two wanted to live close to friends, and six had no preferences.

Of the ten respondents living on Lot 500 (included in the Latham Island category) only two wish to stay on Lot 500; six would like to move to another part of the island.

lined in Chapter III, southern Latham Island can be termed the city's most heterogeneous residential area.

Given the opportunity, 16 of the 88 (18 percent) residents sufficiently dissatisfied with their present neighbourhood would move to New

Town, even though only 54 percent of the area's current residents would stay. The new subdivisions provide the opposite trend; while present residents express high levels of neighbourhood satisfaction, only 9 percent from other areas would move to School Draw and 5 percent to Matonabee. The new Forrest Park subdivision would attract an additional 7 percent; all six of these presently live in the two trailer parks. It seems, then, that the "suburban" environments offered by these areas are attractive mainly to those presently living in them; it will be recalled that "newness" and "cleanliness" ranked last as qualities associated with a resident's ideal neighbourhood. Old Town was separated from Latham Island in the responses to this question; it evidently holds little appeal compared to the island, being the choice of only 4 of the 88 respondents who would move. This must not be interpreted as suggesting that the area is necessarily residentially undesirable; the relatively low number may be due to publicity concerning industrial land use in the area. Finally, it comes as no surprise that the two trailer courts are perceived as residentially desirable by a mere 2 of the 88 respondents who would like to move. Both were Central Trailer Court residents who wished to obtain a lot in Northland.

### Summary

The suspicions expressed in the foregoing chapter regarding the applicability of deductively generated social indicators have been borne out. Certainly in the Yellowknife context, they do not portray a representation of conditions that coincide with those of residents. Approached inductively from the neighbourhood and city scale, it has been shown that different sets of positive and negative liveability criteria emerge.

In terms of satisfaction with the town, there is a degree of consistency in Yellowknife residents' perception of important liveability factors. But these cannot be generalized to apply to all northern communities. For example, Matthiasson's study of quality of life in Fort McMurray, Alberta, (before massive exploitation of the tar sands began) revealed a different set of responses to items concerning services and facilities in need of improvement.<sup>17</sup> Southern accessibility, communications, and medical facilities were perceived as most deficient; housing ranked fifth of the eight items. In Yellowknife it will be recalled that housing was at the head of the list, while improvement in communications and medical facilities received a low priority. While most items were perceived consistently, caution is necessary when making generalizations about Yellowknife, as there are liveability criteria that are perceived as more important in some areas than others. These must be emphasized to give an accurate impression; not to do so could lead to misleading assumptions in planning. To continue with the housing example, it was found that residents of those neighbourhoods with a high proportion of subsidized units are less likely to perceive housing to be as great a problem. One is tempted to suggest there might be more government concern over housing if its employees were not offered subsidized accommodation.

Reviewing the positive liveability criteria, residents seem to enjoy aspects of Yellowknife's physical and social environments: the site, scenery, and clean air is agreeable to many, the pace of life in the city was viewed by others as optimal, and the people of Yellowknife were a third major source of community satisfaction. The myth of the frozen North, inhabited only by those who are ignorant of any "better" physical

or social environment, does not hold. The image of "metropolitan man . . . adapted as it were to metropolitan life, and once adapted can feel at home in any metropolitan area anywhere, though nowhere else"<sup>18</sup> is not as simple as it sounds. Almost half of Yellowknife's residents have made the shift from metropolitan areas and emerge at least as satisfied with the community as those with non-metropolitan or northern origins.

When the frame of reference shifts to the neighbourhood, satisfaction is generally lower. Different attitudes are also held concerning what is required to provide a higher quality of life. Not only do the neighbourhood quality criteria perceived as important by Yellowknife residents differ from those in other cities,<sup>19</sup> they also differ from one residential group to another. One cannot expect residents of Con, or Latham Island, to be satisfied with those planning standards that are manifested in the new subdivisions, just as not all residents of these subdivisions would be happy with the type of neighbourhood environment found at Con or Latham Island--although a surprising proportion are. The areas in which severe neighbourhood environmental misfit is apparent include the trailer courts, especially the Central courts, and Lot 500. Implications for planning will be discussed in the final chapter.

On the whole, the majority of Yellowknife's residents are at least moderately satisfied with their community. This is indeed encouraging, for expressions of general satisfaction are more than favourable attitudes towards specific items that tend to treat the city as a planned (or unplanned) physical entity. Satisfaction with the community would also appear to be a general sentiment that is derived from living in, and therefore experiencing, Yellowknife. It is to these experiential aspects that the discussion will now turn.

Footnotes

<sup>1</sup>The covering letter and the questionnaire are contained in the Appendix.

<sup>2</sup>It is said in jest that every northern native family consists of five--the father, mother, two children, and an anthropologist studying them. The high ratio of researchers to population leads many northerners to believe they are "overstudied". Further complaints result from a lack of feedback, delving into personal situations, and causing some disruption in the smaller settlements. In 1974, the Territorial Government passed legislation designed to regulate research activity by licensing approved projects.

<sup>3</sup>To minimize the problem of response bias resulting from the order in which alternate choices were presented, a total of eight different card sets were used; the interviewer always had at least two sets at his disposal. The ordering of possible responses for questions 8, 12, 13, and 14 differed for each set.

<sup>4</sup>Some of the signs preceding the correlation coefficients have been changed in the text to aid the reader in interpreting relationships. For example, the correlation coefficient between community satisfaction (Q.17) and intention to move (Q.5, see Table 5.1) appears in the matrix as a positive one; this is because the response to the interval choice "very likely to move" was assigned a value of 1, and the "not at all likely" option was quantified as 5. For the sake of clarity, this appears in the text as a negative relationship--the greater the community satisfaction, the lower is the intention to move. See Tables 6.1 and 6.6 for the values assigned to the Likert intervals, and the Appendix for the complete wording of the questions.

<sup>5</sup>These residents came to Yellowknife from cities that are small to moderate in size (25,000 to 200,000) or from both metropolitan and small town areas, as indicated in response to question 2.

<sup>6</sup>Criteria are listed in Tables 6.4 and 6.5. See also footnote 3 above.

<sup>7</sup>Including Anne Buttimer, "Social Space and the Planning of Residential Areas," Environment and Behavior 4 (September 1972): 279-318; Robert L. Wilson, "Livability of the City: Attitudes and Urban Development," eds. F. S. Chapin and S. F. Weiss, Urban Growth Dynamics (New York: Wiley, 1962), pp. 359-99; L. E. Jackson and R. J. Johnston, "Structuring the Image: An Investigation of the Elements of Mental Maps," Environment and Planning 4 (1972): 415-27; Richard A. Lamanna, "Value Consensus Among Urban Residents," Journal of the American Institute of Planners 30 (November 1964): 317-23; J. S. Matthiasson, Resident Perceptions of Quality of Life in Resource Frontier Communities, Series 2; Research Report No. 2, Center for Settlement Studies, University of Manitoba, Winnipeg, 1970; David M. Smith, The Geography of Social Well-Being in the United States (New York: McGraw-Hill, 1973); R. B. Zehner,

"Neighborhood and Community Satisfaction: A Report on New Towns and Less Planned Suburbs," eds. J. F. Wohlwill and D. H. Carson, Environment and the Social Sciences: Perspectives and Applications (Washington: American Psychological Assoc., 1972), pp. 169-83.

<sup>8</sup>It should be noted that during the period of field work, the first 60 miles of the gravel highway to the south was undergoing extensive repairs and was impassable whenever it rained. Still, many respondents were referring to the high per mile air rates from Yellowknife to Edmonton.

<sup>9</sup>See Table 3.5.

<sup>10</sup>Many respondents living in subsidized accommodation specified, in choosing housing from the list, that they had other Yellowknife residents in mind--that their personal housing situation was adequate. Five of the seven School Draw respondents voluntarily qualified their response in this way.

<sup>11</sup>This area must surely be one of the few in Canada that has cable television services but no piped water or sewer services.

<sup>12</sup>For example, Buttimer, pp. 279-81; Wilson, pp. 369-71; W. G. A. Shaw, "Evaluation of Resource Towns: Planned and Unplanned" (M.A. Thesis, University of Alberta, 1970), Chapter VI.

<sup>13</sup>As shown in the high correlation coefficients among the four neighbourhood Likert variables in Table 6.2. Of the six correlation coefficients, four are significant at the 0.05 level.

<sup>14</sup>Only in Old Town - Latham Island is there variation in the relative rankings to the neighbourhood items. Nonetheless, for the seven neighbourhoods, Pearson's  $r$  for questions 22 ("child") and 24 ("part") is 0.88, for questions 24 ("part") and 26 ("neighs")  $r = 0.78$ , and for questions 19 ("advise") and 24 ("part")  $r = 0.58$ .

<sup>15</sup>Buttimer found high levels of neighbourhood satisfaction in an inner-city estate in Glasgow, despite its "squalid Landscape". (Buttimer, p. 303.)

<sup>16</sup>For a discussion of residential homogeneity and heterogeneity, see Herbert J. Gans, "The Balanced Community: Homogeneity and Heterogeneity in Residential Areas," Journal of the American Institute of Planners 27 (August 1961): 176-84; also Lamanna, p. 321.

<sup>17</sup>Matthiasson, pp. 14-17.

<sup>18</sup>Murray Jones, "Metropolitan Man, Some Economic and Social Aspects," in L. O. Gertler (ed.), Planning the Canadian Environment (Montreal: Harvest House, 1968), p. 247.

<sup>19</sup>See, for example, Zehner, pp. 176-78; Lamanna, pp. 318-21; Wilson, pp. 376-80.

## CHAPTER VII

### THE EXPERIENCE OF LIVING IN YELLOWKNIFE

Assessment of quality of life in Yellowknife has proceeded from formal indicators of social well-being, to levels of liveability and their determining criteria as perceived by a representative sample of residents. A third approach is based on the premise that quality of life in a community is also contingent upon the existential meaning the community acquires for those who live there. As Carr asks, which is the real city, the city as portrayed on maps or the city of the mind? "In a very real sense, the city is what people think it is."<sup>1</sup> In effect, what is being asked is the common question posed to everyone who has lived in an unfamiliar place, namely "What is Yellowknife really like as a place?" It is doubtful whether crime statistics or welfare data are usually offered in reply. More useful, perhaps, are suggestions that reflect lifestyles or satisfaction; that, for example, the majority of people are satisfied, and why, with their existence in Yellowknife. But most often in everyday life, this question of the "real" quality of life is answered by conveying impressions gained by observing the fabric of typical scenes, and adding interpretation and evaluation to these environmental experiences.

#### Terms Descriptive of Life

Interviewees were asked to select from a list of adjectives those three which best described their reaction to life in Yellowknife.<sup>2</sup> From Table 7.1, the terms "friendly" and "expensive" were each chosen by over half of the respondents, while those terms often associated with the

TABLE 7.1

## TERMS DESCRIPTIVE OF LIFE IN YELLOWKNIFE

	Yellowknife		Central Trailers		Northland Trailers		School Draw		Con Site		Matonabee		New Town		O. T.- Latham I.	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Friendly	125	61	10	40	15	55	19	63	20	72	17	60	18	48	16	59
Expensive	117	57	19	77	18	67	17	56	19	69	17	60	19	51	8	30
Transient	78	38	7	28	6	22	10	33	4	14	14	50	20	53	17	63
Peaceful	71	35	8	32	10	37	10	33	11	40	12	42	10	27	10	37
Challenging	61	30	4	16	8	30	12	40	11	40	7	25	14	37	5	19
Progressive	36	18	4	16	4	15	6	20	4	14	5	18	8	21	5	19
Exciting	25	12	3	12	4	15	4	13	4	14	2	7	4	11	4	15
Isolated	25	12	7	28	4	15	4	13	3	11	3	11	4	11	0	0
Cliquish	24	12	1	4	6	22	4	13	2	7	3	11	5	13	4	15
Depressing	13	6	3	12	2	7	1	3	1	4	1	4	2	5	3	11
Deteriorating	12	6	2	8	2	7	1	3	0	0	1	4	2	5	4	15
Gossipy	12	6	2	8	2	7	1	3	1	4	1	4	2	5	3	11
Lonely	7	3	3	12	0	0	0	0	1	4	2	7	1	3	0	0
Boring	6	3	1	4	0	0	1	3	2	7	0	0	1	3	1	4
Romantic	4	2	0	0	0	0	0	0	0	0	0	0	3	8	1	4
TOTAL	616	301	74	297	81	299	90	296	83	300	85	303	113	301	81	302

southern image of the North (boring, lonely, isolated) were picked as representative by comparatively few. Responses of Old Town - Latham Island residents again depart from the city-wide norm: relatively few consider Yellowknife to be "expensive"; as with New Town residents they place more emphasis on the transient nature of the community. Strangely, a mere 14 percent of Con respondents selected the term "transient"; perhaps this third group of long-term residents are more habituated to turnover and therefore accept it, or may be physically and socially isolated from the transient sectors in the city. The effects of rapid growth and change do not appear to be particularly stressful or disruptive, as only 6 percent of respondents consider the city to be deteriorating or depressing. However, the low levels of satisfaction expressed by Central Trailer Court residents are reinforced. These residents are more apt to pick terms with negative connotations--expensive, isolated, and lonely--at the expense of more positive expressions that suggest successful adaptation to life in the city, such as "friendly" and "challenging". These findings are consistent with the earlier profiles revealed for each of Yellowknife's neighbourhoods; now, however, the earlier interpretation is bolstered by the explicit meaning residents themselves ascribe to their experience of Yellowknife.

### Scenarios

The way to get at what goes on in the seemingly mysterious and perverse behavior of cities is, I think, to look closely, and with as little previous expectation as is possible, at the most ordinary scenes and events, and attempt to see what they mean and whether any threads of principle emerge among them.<sup>3</sup>

To attempt to answer the question posed earlier, "What is the essence of life in Yellowknife?", three scenarios, based upon actual events that took place in the period of field work, are presented. These

vignettes will underscore more vividly some of the themes which make up the experienced social geography of contemporary Yellowknife. The first describes a downtown bar scene; attention then shifts to the new, luxury Explorer Hotel; and the third scenario focuses on two meetings, one a regular city council meeting and the other a public forum on Latham Island.

\* \* \* \* \*

Yellowknife's bars close at eleven o'clock on Saturday nights. Some say it is because more people will go to church the next morning, others think it gets the town quietened down earlier, a third claim is that more people are then drawn to the dances regularly held by service clubs which begin at ten o'clock and end four hours later, while bar staff regard early closure as a reward for a hectic shift. It had been a busy but trouble-free night in the bar: the take was \$3,000, mostly in exchange for beer at \$1.25 a bottle, and there had been only one minor flare-up, quickly extinguished by the manager and bouncer. A diverse group decided to attend the dance at the Elk's Hall, including the bar manager from Edmonton, a journalist from Toronto, two civil servants (one from Nebraska, the other from Coppermine), a construction worker laid off due to materials shortages, and a waitress from Quebec. There was one thing we held in common--we were all "transients." While there was no real formalization of friendships, we were all good acquaintances: transiency and friendliness go together. No one really had a good reason for going to the dance, it was just the thing to do on a summer Saturday night. The summer transient population had peaked; people were being turned away shortly after our arrival. In spite of the numbers, there

were few familiar faces. The journalist, who had spent over a year in the city, remarked he would print some lapel buttons with the phrase "I'm Here in Winter Too", and then joked that Indians would be his only customers.

As the others left to join the long queue at the bar, I began talking with the bar manager, who had just handed in his resignation. "If this town wasn't so expensive, I might stay here for the rest of my life. Mind you, I didn't have the greatest job." Being exposed every day to this side of life in Yellowknife, I asked him why there were so many alcohol-related problems. "First, this is a very materialistic town. People come here thinking the streets are paved with the gold they mine. It is a great place for the ambitious types, and Yellowknife doesn't have Edmonton's hectic pace. Many succeed, but for others that myth just doesn't hold true--they are the ones I come across. Secondly, Yellowknife is literally and figuratively the end of the road for a small but noticeable minority. They drift into town, make some money at odd jobs, spend it in the bar, then leave again. But people aren't hostile towards them. People here are of the opinion that it doesn't matter who you were or where you come from, it's who you are that counts. I think the North will be like that for a long time."

\* \* \* \* \*

The back page advertisement of the airline timetable reads "Dramatic discoveries are what the North is all about. Here's the latest for you. DISCOVER YELLOWKNIFE'S NEW GIANT - THE EXPLORER HOTEL. Pacific Western Airlines and the Explorer Hotel - Partners in Progress!"

Situated on top of a rock outcrop on the western edge of the down-

town core, the eight-storey Explorer Hotel is the first building one passes on the way into town from the airport. Suites range in cost from thirty to one hundred dollars a night; the dining and cocktail lounges are comparable to "the best" in the South. Since its opening in early 1974, the hotel has hosted numerous events, including Territorial Council sessions, the Berger Pipeline Impact Inquiry, several national and international conventions, and receptions for royalty. It is a place where certain types of behaviour occurring in other hotels are not sanctioned; the hotel is constructed and managed to facilitate "appropriate" social conduct from a limited range of occupying groups, mostly officials of pipeline and mining firms, and upper echelon Federal bureaucrats. It is therefore not surprising the the "Exploiter" Hotel, and what it symbolizes, is a subject of bitterness for some residents. Its management has been accused by native groups of discrimination in hiring, and community group and native representatives complain of being left off the invitation list for receptions held there. In some ways the Explorer Hotel is a caricature of the South brought North, an unself-conscious transplant of Edmonton and Ottawa into a very different milieu.

The hotel's lounge did prove to be an excellent place to go for a quiet drink. While the other bars were full, the Explorer's was usually almost empty. I arrived there one evening with a government employee, a Dogrib Indian born in Yellowknife. He remarked, "I can just see the smile on some pipeline executive's face when he drives up directly from the airport. He'll get out, look up at the lily-white facade, and see the fur-trader-in-his-canoe symbol gleaming in the back-lit fluorescent light. And he'll think to himself, finally the North is progressing. He'll stay a couple of days, holding meetings in the hotel, eating and

drinking in there too. Then he will go back to the airport, fly back home, and tell his friends that the North, especially Yellowknife, isn't such a bad place after all."

\* \* \* \* \*

The territorial liquor licensing board had called a public meeting in the Latham Island Community Centre to hear discussion on an application to renovate and license the Old Rex Cafe on Latham Island. I arrived with a social services worker who had lived in several northern settlements for the past fifteen years. Besides the board members and lawyers, there were about thirty onlookers (all but three were white) in the hall that was set up for three times that number. I wondered why native participation was apparently so scant. "It won't be in an hour or two", she replied. "They know that the first part of the meeting will be presentations by the lawyers over why there should or should not be a bar here. The band isn't interested in that." While we were waiting, we chatted about native participation in the social service agency where she worked. "I was here one year before I talked to an Indian, and it was two years before I invited one to my home. That was just after I had given a Metis woman a ride home one stormy night. As it turned out, she lived with her family in a shack the size of a double phone booth about a hundred yards behind my house in School Draw. I hadn't considered that people might even live in there."

The meeting began with legal presentations. The Explorer Hotel's counsel argued that Yellowknife didn't need any more liquor seats,<sup>4</sup> and that "Latham Island is surely a part of Yellowknife just as much as Forrest Park, and their residents must have their say." Counsel for the

applicant suggested that the proposed bar would function as a neighbourhood pub, and encourage interaction among Old Town's social groups. "Besides, it would cut down on the problems along Franklin [the only street between the Old and New Towns] after the downtown bars close." It seemed that these discussions would continue before any public input occurred; since there was also a city council meeting that evening, we left for City Hall.

The council agenda included the regular fare of zoning changes, a discussion of the lottery system designed to dispose of about a dozen lots on Latham Island, the recreation budget, and the problem of squatters in Old Town. Council is dominated by members of the business community, although two or three professionals have been elected recently. "It's really frustrating for a big-city person to see how council acts", my companion said. "You just wait to see how many aldermen end up with those Latham Island lots. [Two aldermen emerged from the "public lottery" with three lots.] But it's not as bad as the previous council; the former mayor, who owned a car dealership, was always accused of keeping the roads in bad shape so he got more business. That's typical of the thinking around here. Maybe that's not true, but he did own the only bus company in town; they charge fifty cents a ride for the two mile trip between Latham Island and downtown."

Council proceeded to vote to eliminate the recreation budget for the next fiscal year as a move to save money. (It was subsequently reinstated after public pressure.) One alderman muttered, "sometimes I wish Yellowknife was the same old small mining town where there was always a financial balance."

Discussion subsequently turned to the enforcement of building and

fire codes in the Flats area of Old Town. The fire inspector's report reads:

- On May 23, 1974, this department conducted an inspection of the above noted area. This section could probably be deemed as the most deplorable and filthy area of Yellowknife. Some examples are . . . .
- 3) Three people are occupying a trailer, about 7' by 10' in size. This trailer was moved in from the dump area. It has obscene language written on it.
  - 4) Substandard housing has been moved in recently, without a moving permit.

Separate conversations with two municipal officials revealed divergent views about Old Town:

What would you do about Old Town? It's a slum, and most of the landlords are absentee. We don't have the money to do anything. Besides, the majority of the taxpayers would object to seeing their money funneling down to that area.

We are supposed to enforce building codes, but what do we say-- get out because your house isn't safe? Where would they go? Who is right--we or they? We like a nice house, but do they? If nothing is done, I think the Flats will go the way of Latham Island. I'm really afraid there will be no dialogue and a lot of hostility. It's the absentee landlords we should go after. And now we've got fancy proposals for waterfront condominiums. That makes me mad.

After the meeting, we went back to Latham Island where the liquor hearing was continuing. By now there were about fifty people listening, about half of whom were natives who continued to filter into the hall and occupy the back few rows. A young man had been brought in to translate the proceedings from English to Dogrib, and vice versa. The Yellowknife Band Chief, a representative of the Rae Band, and several white citizens spoke strongly against the proposal. A man, obviously intoxicated, staggered up the aisle, loudly confronting the board members with the question, "Can I get any beer here? They won't give me any downtown." As he was being evicted, the answer to his question, and the outcome of the hearing, became obvious.

### Adaptation to Yellowknife's Environment

Sources of dissatisfaction that interfere with residents' quality of life have been discussed. Quality of life at a more personal level is also contingent upon how, and how well, an individual adapts to and creates his environment. The way Yellowknife's urban environment is judged is in part influenced by the expectations built up with respect to urban living which have been learned elsewhere. People come to Yellowknife with different sets of experiences and expectations, yet their attitude prior to arrival is an important construct which mediates satisfaction with the environment. One recent arrival to the city claimed, "People moving here must have a positive attitude, especially wives."

The resident may adapt to the town by ignoring what is considered to be unmanageable, as a woman of ten years' residence admitted: "I've never been to Latham Island--I heard it was kind of a closed neighbourhood." Social mechanisms can also modify possible negative attitudes: "If people aren't happy with Yellowknife, why are they here? We try to associate with people who like the North." Others adapt positively by using the urban environment to gain a personally satisfactory lifestyle, as for example, a former Vancouver resident who though never involved in big city community groups, feels he "can really contribute something by joining community organizations here; Yellowknife doesn't make you feel powerless."

Many Yellowknife residents have been able to achieve this sense of personal efficacy within their new environment by creating new kinds of attitudes, values, organizations, and activities that give way to higher levels of personal quality of life. Many adopt personal "philosophies" to accept the problems and frustrations imposed by the physical

and social environment, and resist changes they feel would interfere with their lifestyle?

Sure, it's expensive, but it is everywhere. If prices fell to southern levels, the town would change too much. (New Town resident.)

We do our own baking, grow our own vegetables, and cut our own meat, often caribou. I consider this a freer, more independent life than anywhere in Canada. (Old Town resident.)

I wish people would stop trying desperately to make Yellowknife into a southern city. I guess that's why some resent the Explorer, and why they resent southern experts. (Matonabee resident.)

Several theoretical attempts have been made to account for successful personal adjustment with the environment, particularly an environment of novelty. Helson, for example, proposes an optimal level of stimulation hypothesis, postulating an inverted U-shaped relationship between the magnitude of stimulation along environmental dimensions of novelty, complexity, and variation, and preference for that environment.<sup>5</sup> In other words, an environmental setting ("stimulus") that is either extremely simple or extremely complex, such that the individual may become environmentally bored or overwhelmed, leads to a negative evaluation ("response"). For all its variations and details, the hypothesis still borders an environmental determinism, denying an individual's capacity to adapt to a wide range of environmental conditions. A second approach has been presented by Matthiasson in his study of quality of life in Fort McMurray.<sup>6</sup> He suggests that particular personality types will bring to northern communities specific sets of expectations, and the congruence of these two factors and the community itself will determine the likelihood of a sufficient level of personal and community satisfaction, therefore ensuring semi-permanent residence for personalities which "fit" the environment. According to this ecological ad-

adaptation hypothesis, northern communities tend to be adaptive for certain types of personality structures and non-adaptive for others. While this hypothesis fits reality more closely, personality and expectation considerations should not be regarded as the only variables that lead to environmental satisfaction. It will be recalled that a significant inverse relationship existed in Yellowknife between community happiness and intention to move, giving credence to this "ecological adaptation" approach. But a knowledge of an impending move may act as a defence mechanism by making some individuals more critical of their present environment, thus relieving their apprehensions about what is often the stressful occasion of moving to a different community. Standing on firmer empirical ground, it was also shown that more mundane factors such as housing type and neighbourhood satisfaction influence community happiness in Yellowknife.

A third approach in explaining successful interaction with the environment is the concept of "competence" as advanced by the psychologist R. W. White.<sup>7</sup> The concept grew out of traditional theories of motivation, which stressed variables other than an individual's capacity to interact effectively with his environment through adaptation and environmental "congruence". "It is rather that man . . . achieves an extremely high level of competence in his transactions with his surroundings."<sup>8</sup> Thus the potential for a high quality of life is associated with personal efficacy. This adaptive knowledge must be learned, but once learned it can be further developed and transmitted, as is any component of a culture's adaptation to environmental conditions. The environment is changed--physically or perceptually--to serve human purposes rather than intrude upon them:

Yellowknife is a progressive town, there is enough here not to become depressed or lonely if you give it a chance. (Emphasis is respondent's.)

and,

Here is what you make it!

Perhaps this also helps explain the healthy disregard of many Yellowknifers for the newly-installed parking meters, and the high level of disapproval that met federal Post Office plans to institute door-to-door mail delivery. Most would rather personally pick up their mail downtown.<sup>9</sup> In mundane, everyday events Yellowknife residents prefer to remain close to the frontier tradition of the self-made man who effects his own destiny with a minimum of regulation and a maximum of self-dependence.

Footnotes

<sup>1</sup>S. Carr, "The City of the Mind," in W. R. Ewald (ed.), Environment for Man (Bloomington: University of Indiana Press, 1967), p. 199.

<sup>2</sup>In Matthiasson's study of Fort McMurray, a similar question was asked. Eight of the adjectives are repeated here, partly because of the thorough pre-testing procedure used and also to facilitate comparisons. The other seven adjectives appearing in Table 7.1 were terms that emerged in informal interviews and conversations in Yellowknife.

<sup>3</sup>Jane Jacobs, The Death and Life of Great American Cities (Toronto: Random House, 1969); Modern Library Edition, p. 13.

<sup>4</sup>See Chapter V, p. 126.

<sup>5</sup>H. Helson, Adaptation-Level Theory (New York: Random House, 1964); see also Joachim Wohlwill, "The Physical Environment: A Problem for a Psychology of Stimulation," Journal of Social Issues 22 (No. 4, 1966): 33-35.

<sup>6</sup>J. S. Matthiasson, Resident Perceptions of Quality of Life in Resource Frontier Communities, Series 2: Research Reports No. 2, Centre for Settlement Studies, University of Manitoba, Winnipeg, 1970, p. 5.

<sup>7</sup>R. W. White, "Motivation Reconsidered: The Concept of Competence," Psychological Review 66 (1959): 297-333.

<sup>8</sup>Ibid., p. 324.

<sup>9</sup>Complaints about these two seemingly minor local issues were expressed by several dozen respondents in answer to the open-ended questionnaire items. A survey conducted by a local newspaper in front of the Post Office found that over four-fifths of those surveyed were opposed to door-to-door mail delivery, largely because the Post Office would no longer function as a social meeting place.

## CHAPTER VIII

### CONCLUSIONS AND DIRECTIONS FOR PLANNING

#### Conclusions

The quality of life experienced by Yellowknife residents has been assessed by compiling traditional social indicators, resident-generated evaluations into social indices, and by conveying subjective impressions of everyday life in the community. Taken together these three approaches are useful in attaining an integrated knowledge of life in Yellowknife. It would however be misleading to suggest that they fully complement one another. In a critical evaluation of these methods it is useful to return to the aims of the study, which were to assess the quality of life as experienced by different components of the city's population, determine the positive and negative liveability criteria, and suggest what implications these have for community planning.

The method of developing social indicators of quality of life from available statistics has been amply criticized.<sup>1</sup> They tend to be misleading of variables salient at the level of experience, and mask significant variations among the sub-areas of the town; the additional problems of data availability and reliability suggest the exercise may be of dubious validity. A participant observation approach is useful if a detailed analysis of the level of well-being within one or two component residential groups is desired. However, over-emphasis on a minority group has been mentioned as a major shortcoming in past research of northern communities with diverse social and economic bases.<sup>2</sup>

The approach whereby Yellowknife residents were asked to evaluate the liveability of their environment and to suggest the criteria they employed in their assessment most adequately fits the aims of this research. The concept of quality of life is elusive and its dimensions must be defined at the source. Outsiders' perceptions and stereotypes should not be relied upon in its evaluation. Yellowknife is neither a replica of suburbia transplanted north, nor does it conform to the image of a wild frontier settlement, in spite of statistics which could easily be interpreted as suggesting that drunkenness and assaults are the normal recreational pursuits. Rather, Yellowknife has reached a stage of maturity unprecedented for communities in the Northwest Territories, whose residents exhibit a surprisingly high degree of satisfaction. Seventy-six percent claim to be happy or very happy with Yellowknife as a place to live; the only community dimension along which aggregate response approached a neutral level resulted from the concern expressed about rapid growth.

To some extent Yellowknife is emerging as a model for other northern communities in Canada. As expressed by one resident, "the many things that are good here are very, very good, but the few aspects of life here that are bad are totally bad." Many of these needs--housing, better transport links with the South for goods and people, and improved leisure and recreation facilities--have been identified and can be incorporated into future community and regional plans.

Residents' evaluations of their neighbourhood environments were also positive, although somewhat lower and with varying consistency between neighbourhoods. Successful neighbourhoods reflect a close correspondence between the residents' perception of the area's existing phys-

ical and social amenities, and those considered to be ideal. In aggregate, the chief components of the ideal neighbourhood were privacy, views, general appearance, and freedom from noise and dust. Accessibility factors, newness, and cleanliness warranted scant mention by most Yellowknifers.

Priorities placed upon components of urban quality of life showed some consistency among sub-areas of the city. For example, housing and the high cost of northern living were each mentioned by over one-third of respondents as major problem sources in the community. Leisure and recreation facilities were rated moderately low as sources of community satisfaction and fairly high as liveability components in need of improvement. In contrast, very few were inclined to complain about the city's medical, educational, and retail services. But certain needs at the city and neighbourhood scale are localized, and residential areas vary in the degree to which they provide for the needs and values of city residents. Those living at Con or Old Town - Latham Island enjoy the isolation and privacy offered by their secluded neighbourhoods; a strong sense of neighbourhood identification is present and close associations are maintained. New Town offers convenient access to community services. Residents wishing to pursue a southern suburban lifestyle may find it in the new homogeneous subdivisions. These attitudinal variations neatly reflect the city's social geography and social space that had been previously analyzed through patterns of socio-economic structure, interaction, and urban images of the people who live in the city's discrete districts.

These results lend themselves directly to planning applications, as the expression of residents' opinions has the potential to make them

participants, not consumers, in the planning process. As stated in the introductory chapter, user input into northern planning is an objective of the federal government in providing for a higher quality of life in the North. On the basis of these findings, some directions for future planning in Yellowknife will be suggested.

#### Aims and Concerns for Planning in Yellowknife

For the time being at least, Yellowknife continues to grow rapidly. The 1980 population level of over 10,000 forecast in 1971<sup>3</sup> will be surpassed in 1976. The city is becoming the northern headquarters for more resource-based companies; their future developments will lead to government expansion. This suggests that Yellowknife is emerging as the major regional node serving the vast northern hinterland.

On the basis of the survey data, a major long-term goal for the city should be to provide for or preserve those environmental components now scarce or costly in the southern city. Recall that the "site, scenery, and clean air" and "the pace of life" were the leading amenities associated with life in Yellowknife (Table 6.4). Freedom from pollution and congestion is appreciated by most northerners; in the North the implementation of such additional amenities as the ownership of a detached house and accessible recreation resources appears more feasible than in most southern cities. Too many interviewees expressed feelings similar to the Matonabee row house resident who lamented that "the family loves the North, but we won't stay if we always have to live in these kinds of houses. We feel as if we're being penalized." Enhancing quality of life does not imply shaping Yellowknife into a larger, southern-type city: almost half the residents are of the opinion that the disadvantages of the city's rapid growth outweigh the benefits, and a strong

majority dislike big cities.

A critical problem in achieving such aims lies in the relationship between the desires of residents with different lifestyles and the assumptions and values of planners. This research has concluded that needs, as expressed through attitudes and liveability components, are frequently both localized and different from southern urban norms. For example, the planning criteria for any new residential area include optimal density, accessibility to services, and design norms for building layout and location. But to consider just one of these standards, on the basis of whose value orientation is "optimal density" decided? Recall that the privacy afforded by a residential area was the most frequently chosen consideration in its evaluation; spaciousness received a lower priority. Proximity to both schools and stores ranked ninth and tenth respectively of twelve criteria used in neighbourhood evaluation; surely these do not justify increases in residential density for future northern neighbourhoods.<sup>4</sup> Moreover, the sense of privacy conveyed by any particular neighbourhood is surely difficult to quantify accurately in an optimal persons per acre value.

Even when planning standards are supposedly devised to cater to the residents, results are by no means always satisfactory. Kitimat was among the first planned new towns in Canada's resource frontier; in a comparative evaluation with the "unplanned" town of Kimberley--a resource community of similar size and occupational structure--it was found that residents of Kitimat were less satisfied with their dwelling and neighbourhood environment, while satisfaction with the city environment was similar to that in Kimberley.<sup>5</sup> Most new neighbourhoods and towns in the North are neat and orderly, but they are also over-planned and over-

organized. To help counter this lack of perceptual stimulation and variety, the new town of Leaf Rapids in northern Manitoba was planned to create a more stimulating urban environment, to accommodate "the perceptual diversity essential for man."<sup>6</sup> But consider what a housewife living at the Con site said of that instant town:

Leaf Rapids was a terrible place. The only good thing it had going for it was its shopping mall. The town catered too much to the working man--there were no family facilities like playgrounds, and we had to drive to the lake for picnics. After my first day there I wanted to move.

Progress towards the resolution of this dichotomy between planner and resident can be made by obtaining the inside view of the needs of all residential groups in the North. Compare the old residential areas of Con, and Old Town - Latham Island, with the new Matonabee and School Draw subdivisions. The old neighbourhoods might be termed a planner's nightmare, with unpaved streets, antiquated or non-existent public utilities, and layouts demonstrating a total disregard for "proper" land use zoning. In contrast, much forethought has gone into the planning of the latter areas--they have underground services, paved roads, and neat geometric layouts. Yet all four neighbourhoods received higher endorsements from their residents than any of the others in town. Some citizens prefer the orderly, cubic design of the subdivisions; others are predisposed to the variety, privacy, and modest confusion offered by the older neighbourhoods. "Only when a particular area design has acquired social meaning, only when its neighbourhoods and physiognomy are stamped with the character of its residents . . . does an ecological harmony between people and milieu emerge."<sup>7</sup>

Compared with other northern communities of similar size, Yellowknife is unusual. Due to its rich history and diverse social and eco-

conomic base, it offers its people a variety of residential environments, both in a physical sense and as a behavioural setting. One is reminded of Robert Park's notion of the city as a mosaic of social worlds in which the individual could find a residential environment most suited to his way of life.<sup>8</sup> Indeed, this diversity seems to be a key component to the favourable image of the city held by most residents. Reconsider the adjectives descriptive of life in Yellowknife (Table 7.1). The city does not conform to the "instant town" model; otherwise the terms "lonely" and "boring" would probably be chosen by more than 3 percent of the residents. But neither is the exciting, romantic, isolated existence of life in a frontier town in evidence. Instead, Yellowknife exhibits a degree of cosmopolitanism often not found in cities many times its size. Its essence was succinctly expressed by one of the many residents who conveyed this idea:

Yellowknife is almost cosmopolitan. Actually, it's better than that. It's more stimulating than the big city, since you can easily meet a greater cross-section of society if you want to.

"Friendly" was the most frequently-chosen adjective to describe life in Yellowknife. At the same time it is both "peaceful" and "challenging". "The people" ranked third of twelve possible sources of community satisfaction. The city has managed to retain many of the so-called "sacred" small town values and has avoided the "profane" themes present in metropolitan life, yet offers its people the residential and cultural diversity of older, larger cities. It is along these dimensions that Yellowknife should be considered as a model for other northern communities.

## Housing and Neighbourhood Improvements

Many Yellowknife residents who express dissatisfaction see their accommodation or neighbourhood environment as inadequate. The amelioration of the housing problem in the city, and improvements in certain neighbourhood environments to make them congruent with the desires of their residents would substantially increase overall liveability.

Housing has emerged as a national problem in recent years. In Yellowknife, the lack of suitable accommodation is viewed by 38 percent of residents as the greatest hindrance to community satisfaction. The housing problem, while reflecting national causes, is made more complex by the town's isolated location and harsh climate, and by the fact that ownership or control of much of the accommodation by governments and private companies hinders the operation of a private housing market.

If the problem is to be viewed as one of lack of supply (as opposed to a problem of distribution), some possible solutions can be suggested. It appears the major hindrance to greater supply is the lack of available serviced land. The city admits to being "two or three years behind" in residential planning.<sup>9</sup> As in most southern cities, an artificial land shortage has developed. The abundant crown lands within the city's boundaries should be made available to the municipality for residential use before need arises; speculation in land can be restrained through publically-financed land assembly schemes. In this way, land released for profit-free sale can negate the influence in the final market price of the higher costs of servicing, materials transportation, labour, and design modifications required for the harsh winter.

The housing problem in Yellowknife also stems from an inequitable distribution of the existing housing stock, The ownership or control

of housing by institutions, rented with a subsidy to employees, has been discussed in Chapters III and V. The ramifications are found to be far-reaching, creating hostility within the community and physically segregating residents on the basis of occupation. Subsidies for these employees make them a privileged group. The government sector in particular has been able to increase its consumption of housing above the level which would be normally allocated by supply; single employees live in large apartments, and houses stand vacant for months, awaiting a government-employed occupant only. The housing stock would be increased markedly if these groups were more imaginative with their surplus space.

The Government of the Northwest Territories recognized its employee accommodation programs are causing considerable concern and confusion among both employees and the public.<sup>10</sup> A territorial government task force report recommends the sale to employees of existing government-owned, detached accommodation in Yellowknife, and the placement of row, semi-detached, and apartment accommodation "on a full economic rental basis, with a direct subsidy to make up the difference between that rent and the rent presently being paid by the employee." The report continues, "failure to develop a program of this nature within the near future, will only postpone the resolution of a problem that will increase in difficulty with the continued growth of the public service."<sup>11</sup>

If the levels of government were to withdraw from their present active role in the housing market, the only segment of Yellowknife's population receiving subsidized accommodation would be the city's treaty Indians. Residents of Lot 500 were found to be among the most dissatisfied of all Yellowknife residential groups (Tables 6.6, 6.7, and 6.9). Of the residents interviewed, only two wished to stay on Lot 500, while

six others would prefer to move to another part of Latham Island. In response to open-ended questions, six expressed dissatisfaction with their accommodation: one respondent's family consisted of ten children living in a two-room house.

Inadequate housing for Indians and Eskimos is a chief ingredient of the culture shock that strikes the first-time visitor to the North. Lot 500 structures are typical of native housing found in the larger communities, where prefabricated dwellings are assembled on a site distant from white residents and community services. They have been well described as "drab stereotyped blobs of boredom" and "clumps of architectural weeds which are exerting a negative effect on the psychology of the Northern population."<sup>12</sup>

Indeed, public housing for northern natives has in the past provided a "field day" for both physical and social engineering, with improvement in native conditions being measured simply by the number of prefabs erected. As a prominent architect with many years' experience in the developing countries has convincingly argued, if people are given or sold land and allowed to do their own contracting or building with optional help, the social and monetary costs fall for both the client and government.<sup>13</sup> With the increased presence and influence of northern native organizations, government paternalism is on the wane. Native people themselves will decide; no one will be in charge of "managing them."

As demand for residential lots on Latham Island creeps northward to Lot 500, it is only a matter of time before pressure will be put on its residents to relocate once again. The surfacing of this relocation issue, regardless of the outcome, should enhance the self-awareness of

present residents.

A final aspect of the housing issue meriting some discussion is the provision of housing for the transient population. Planners and governments should realize that Yellowknife's total population includes a mobile and impermanent element: some live in hotels for the duration of their stay; others leave when they find no adequate short-term accommodation is available. Steps are being taken, not by governments, but by the United Church, which is erecting a ten-storey community centre to be opened in 1976.<sup>14</sup> The building is to provide accommodation for senior citizens, single people, and young travellers.

It has been suggested that planners should pay less attention to improving the residential environments of those who are comparatively well served and attend to the environmental needs of those relatively deprived. Residents of the four central trailer courts, and to a lesser degree those in Northland Trailer Park, consistently emerged as the two groups most dissatisfied with their neighbourhood. In the North in particular, the ownership of a mobile home provides convenient and relatively inexpensive accommodation, yet Yellowknife is severely short of trailer space. The problem is essentially one of cost, choice, and tenure. If a space does become available, the mobile home owner has no option but to rent the pad in a high density "park", which in the Old Dump Park is a landfill site. Pad rental, which is between 50 and 100 percent higher than that paid for comparable lots in the South, could be lowered through greater private market competition. A longer-term solution would be provided if the city itself developed new mobile home subdivisions, financed by long-term, low interest federal or territorial funds. While land developed privately for conventional housing can be

financed through government agencies, mobile home park developers must borrow from institutional lenders at higher interest rates and shorter term dates.<sup>15</sup> Municipal bylaws must ensure that new mobile home parks provide the amenities found in a conventional subdivision; owners of mobile homes should be given a choice of lot sizes, with the option of lot rental or purchase. If the city acts as a non-profit developer and draws up zoning regulations for mobile home parks, a substantial proportion of Yellowknife's population would enjoy markedly better neighbourhood environments.

Attention should also be focused on those areas where changes in social or physical structure are imminent. In Yellowknife, these include the Con residential site and the Old Town: interestingly, residents of these two areas both exhibited high levels of neighbourhood satisfaction. If this is to be maintained the re-design of these environments must take into account the residential desires of their populations.

Cominco is planning to construct a new residential area, containing up to two hundred units, south of the present site.<sup>16</sup> In the opinion of respondents, the first priority should be new bunkhouses: although bunkhouse residents were severely underrepresented in the Con sample, numerous other respondents had comments to make, such as "I've lived in bunkhouses in eight provinces and two territories, and these are the worst."

In planning accommodation for employees with families, Con should be mindful of the opinions of its present residents:

Con has the nicest location around here. There's no question that the housing is inadequate, but somehow it really fits in with the setting.

If Con built houses for those who want them instead of apartments or bringing in trailers, they'd get their employees to stay a lot longer.

In addition, Con respondents seem to enjoy the relative isolation of their neighbourhood: quietness and privacy were major criteria in evaluating neighbourhood quality. But a well-developed social infrastructure exists within the area. The implications for planning are self-evident.

As the city grows, Con should also consider divesting its real estate holdings. Yellowknife is no longer a company town. Steps should be taken similar to those discussed earlier with regard to the government-owned housing, and for the same reasons. Initially, the company could offer to sell its existing accommodation at the Con site to employees with a guaranteed buy-back scheme--a program that operates in most new instant towns dominated by one industry--with the eventual goal of having all housing stock absorbed into the city market.

Proposals to "redevelop" the Old Town have been discussed in some detail elsewhere.<sup>17</sup> Pressure has come from two directions: originally the area was to be zoned for commercial and industrial uses, thus no new residential construction was permitted and residents were to be relocated. As northern Old Town's potential as a desirable residential area has become increasingly recognized, pressure has been applied to retain the original residential zoning and eventually redevelop the area for middle and upper income residents. It appears likely that the latter course will be pursued.

As home to many of Yellowknife's low income residents, Peace River and Willow Flats in southern Old Town should remain residential, and a citizen's group has been formed to pressure city council. Some of the dwellings are nothing more than shacks, but no suitable replacement accommodation is available. Most residents wish to remain in the area. Any program of public housing in the Flats must be generated jointly by

planners and residents: a massive scheme imposed on the people of the Flats will fail. In addition, a new plan for the Old Town should provide for open space zones to take advantage of natural settings for parks, and to protect the few remaining buildings from Yellowknife's past that can be salvaged as historic sites. There is ample land for warehousing and light industrial use east of Frame Lake along the old airport road.

Many of these planning proposals for Yellowknife no doubt make considerable demands on government financial resources. Per capita grants from territorial and federal sources are claimed to be lower than in the South,<sup>18</sup> yet many of the city's problems are a result of the government presence: local ratepayers are paying for the urban expansion caused by growth in the government sector. This has placed a heavy burden on the city in providing even minimal physical and social services. Council at one point voted to virtually eliminate the city's recreation budget,<sup>19</sup> in spite of the limited facilities currently in existence and the moderately high priority placed by respondents on their expansion. Senior governments have a responsibility to assist municipalities when those municipalities provide documented evidence that they cannot deliver the fundamental requirements of urban life. Financial self-sufficiency must be considered a long-term goal for any northern community experiencing rapid expansion.

The federal government has denied any substantial increases in funding, using the argument that it is already subsidizing the Northwest Territories. This is true in as much as revenues accruing from the North are substantially lower than payments transferred to the territorial government. But how valid is this argument? The transfer of funds, whereby poorer parts of Canada are subsidized by wealthier regions, is

a basic principle that binds Canada together as a nation-state.

Through its immense resource base, the Northwest Territories has the potential to be financially self-supporting. The recovery of these resources requires heavy initial corporate investment. But many areas of the North may not be ready for further primary resource exploitation, and there must be the recognition that in many northern communities, urban needs and services that would bring them up to standards considered minimal in the South have yet to be provided. In addition to these catch-up demands, minimal lag times in the provision of services such as housing, education, and public utilities must be defined by residents themselves and guaranteed before additions to the economic base are made. What is required is an investment in the future social well-being of people in the North, just as money for resource recovery is a potential investment made now for the future economic well-being of the North-- and therefore for all of Canada.

Footnotes

<sup>1</sup>See Chapter V, pp. 132-35.

<sup>2</sup>See Chapter III, pp. 29-30.

<sup>3</sup>Makale, Holloway and Associates Ltd., General Plan: City of Yellowknife (Edmonton, 1971), p. 38.

<sup>4</sup>See Chapter I, p. 3.

<sup>5</sup>William G. A. Shaw, "Evaluation of Resource Towns: Planned and Unplanned" (M.A. Thesis, University of Alberta, 1970), Chaps. 5, 6, 7.

<sup>6</sup>D. H. Johns, Environmental Quality Evaluation and Impact Analysis Methodology, Center for Settlement Studies, University of Manitoba, Series 2, Research Report 14, Winnipeg, 1973.

<sup>7</sup>Anne Buttimer, "Social Space and the Planning of Residential Areas," Environment and Behavior 4 (September 1972): 311.

<sup>8</sup>Robert E. Park, "The City: Suggestions for the Investigation of Human Behavior in the Urban Environment," The City, edited by Robert E. Park and Ernest W. Burgess (Chicago: University of Chicago Press, 1967), pp. 1-46.

<sup>9</sup>Interview with R. Findlay, Mayor, City of Yellowknife, 9 August 1974.

<sup>10</sup>Government of the Northwest Territories, Report of the Task Force on Personnel Policy and Management, Yellowknife, August 1974, p. 20.

<sup>11</sup>Ibid., p. 21.

<sup>12</sup>M. C. Bowdler, "An Architecture for the North," North 8 (No. 6, 1961): 7.

<sup>13</sup>John Turner, "Barriers and Channels for Housing Development in Modernizing Countries," Journal of the American Institute of Planners 33 (May 1967): 167-81.

<sup>14</sup>Patricia Clarke, "Yellowknife: The Suburban Church in Mukluks," United Church Observer, October 1974, pp. 22-23.

<sup>15</sup>Yellowknife News of the North, 12 March 1975, p. 4.

<sup>16</sup>See Chapter III, p. 49.

<sup>17</sup>See Chapter III, pp. 56-57; 62.

<sup>18</sup>Joint Brief of the City Councils of Whitehorse and Yellowknife, May 30, 1973, p. 12.

<sup>19</sup>See Chapter VII, p. 181.

## APPENDIX

The sampling procedure and the questionnaire have been described in Chapter VI. What follows is the letter of introduction, the questionnaire itself, lists of the various options presented on cards to the respondent, and a sample of the map used.

## Letter of Introduction:

"As a research project approved by the Territorial Government I am completing a study on residents' ideas of life in Yellowknife; hopefully the results will give planners here a better understanding of the needs of the community. For these results to be complete and representative, your help is requested. I have some questions I would like to ask you about Yellowknife which are straightforward and non-personal; altogether they will take no more than half an hour of your time. I hope to complete an initial report by November, at which time I would be pleased to send you a copy.

Either myself or my assistant will be in your neighbourhood in the next couple of evenings and may call in to see you. Should you wish to arrange a particular time that is most convenient, or if you want to know more about the study, please call me at 8208, between 4:30 and 6:30 P.M.

Thanks,

Peter Ostergaard"

**YELLOWKNIFE QUESTIONNAIRE**  
**SUMMER, 1974.**

1. How long have you lived in YK? Yrs. \_\_\_\_\_ Mo. \_\_\_\_\_
2. What was your last place of residence before YK? \_\_\_\_\_ Before that? \_\_\_\_\_
3. How long have you lived in your present home? Yrs. \_\_\_\_\_ Mo. \_\_\_\_\_
4. Have you lived at any other place in YK? Yes \_\_\_\_\_ No \_\_\_\_\_ If yes, where? Block No. \_\_\_\_\_
5. How likely is it that you will move out of YK within the next few years? Very likely \_\_\_\_\_, Likely \_\_\_\_\_, not sure \_\_\_\_\_, Not so likely \_\_\_\_\_, Not at all likely \_\_\_\_\_.
6. Do you own or rent your dwelling? Private own \_\_\_\_\_, subsidized own \_\_\_\_\_, private rent \_\_\_\_\_, subsidized rent \_\_\_\_\_.
7. How many times did you leave the N.W.T. within the past year? \_\_\_\_\_ Where \_\_\_\_\_ Why? \_\_\_\_\_
8. I'd like to ask you what you especially like about living in YK. From this list, what **two** things do you like most about living here? \_\_\_\_\_
9. Are there any clubs or organizations or a church in town which you belong to? \_\_\_\_\_
10. Where in town do you feel really at home? In this area \_\_\_\_\_ Nowhere in particular \_\_\_\_\_ Other (-specify) \_\_\_\_\_. (If "in this area"): On this map of YK, please draw a line around that part that you consider acts as your neighbourhood or district.
11. Suppose you could live anywhere in YK, including of course where you are now. Where would you like to be? \_\_\_\_\_
12. Here's a list of possible reasons why you chose (...). Could you tell me which **two** are the most important in selecting this area? \_\_\_\_\_
13. Here's a list of qualities that might make living in YK more enjoyable. Which **two** of these are most in need of improvement in YK? \_\_\_\_\_
14. Of the words listed here, which **three** do you think best describe life in YK? \_\_\_\_\_
15. On this map of YK, could you tell me where you have three really good friends living? Block \_\_\_\_\_ Block \_\_\_\_\_  
Block \_\_\_\_\_
16. In general, what do you feel are the worst problems in YK? \_\_\_\_\_

Now, I'm going to read to you ten different statements, dealing with how someone might feel about certain aspects of life in YK. I'd like you to answer in one of five ways - whether you strongly agree with the statement, whether you agree with it, whether you're not sure, whether you disagree with it, or whether you strongly disagree with it. Here's a card with the five possible answers. Is this clear, or would you like one to repeat it?

17. Generally, I'm happy with YK as a place to live. \_\_\_\_\_
18. All the transients and tourists in town these days are disrupting the community life for the more permanent residents. \_\_\_\_\_
19. If someone I knew were moving to YK, I'd advise them to live in my neighbourhood if they could. \_\_\_\_\_
20. YK is a community with more problems than other places I've been to. \_\_\_\_\_
21. Big cities are too noisy and crowded for me. \_\_\_\_\_
22. Compared with other areas in town my neighbourhood is a good place to bring up children. \_\_\_\_\_
23. YK is growing too fast for my liking. \_\_\_\_\_
24. I'd be happier living in another part of YK. \_\_\_\_\_
25. Compared with other places in the N.W.T. that I've been to or heard about, YK is the best place to live. \_\_\_\_\_
26. I don't spend very much time with my neighbours. \_\_\_\_\_
27. Here are some pictures of places in and around YK. Some you may recognize, others you won't. Could you tell me what or where they are? a) \_\_\_\_\_ b) \_\_\_\_\_ c) \_\_\_\_\_ d) \_\_\_\_\_ e) \_\_\_\_\_ f) \_\_\_\_\_ g) \_\_\_\_\_ h) \_\_\_\_\_

That's just about everything except for a few background items.

28. What kind of work do you do? \_\_\_\_\_ Who then is your employer? \_\_\_\_\_
29. What was the last grade you completed in school? \_\_\_\_\_
30. From this card, would you please give me the letter of the age group in which you lie? (If you feel uncomfortable answering this question, please don't bother.) \_\_\_\_\_
31. Would you mind telling me your marital status, that is, are you single, married or divorced? \_\_\_\_\_
32. In which of the groups on this card did your total family income fall before taxes, in 1973? (Again, you need not answer this question if you don't wish to.) \_\_\_\_\_
33. Is there anything else you'd like to say about life in YK that we haven't mentioned? \_\_\_\_\_

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Race

Sex

Age Estimate (letter)

Income Estimate (letter)

Co-operativeness of respondent very \_\_\_\_\_ somewhat \_\_\_\_\_ not \_\_\_\_\_

Date

Time

Length

Name and box number if respondent wishes results.

Options to questionnaire items presented on cards to respondents:

8. WHAT TWO THINGS DO YOU LIKE MOST ABOUT LIVING IN YELLOWKNIFE?

- a) YOUR JOB
- b) THE SITE, SCENERY, AND CLEAN AIR
- c) THE PEOPLE
- d) THE CLEANLINESS
- e) THE SIZE OF THE TOWN
- f) THE SPORTS AND RECREATION
- g) YOUR WAGES
- h) THE CLIMATE
- i) THE ENTERTAINMENT AND COMMUNITY CLUBS
- j) THE PACE OF LIFE HERE
- k) THERE'S NOTHING I LIKE ABOUT LIVING HERE
- l) SOMETHING ELSE, BUT NOT ON THIS LIST.

12. WHICH TWO OF THESE NEIGHBOURHOOD QUALITIES ARE MOST IMPORTANT IN SELECTING THE AREA WHERE YOU WOULD LIKE TO LIVE?

- a) NEWNESS OF AREA
- b) CLOSE TO SCHOOLS
- c) FRIENDLY NEIGHBOURS
- d) CLOSE TO WORK
- e) CLEANLINESS OF AREA
- f) PRIVACY OF AREA
- g) CLOSE TO STORES
- h) SPACIOUSNESS OF AREA
- i) FREEDOM FROM NOISE AND DUST
- j) PLAY FACILITIES FOR CHILDREN
- k) GENERAL APPEARANCE OF AREA
- l) THE VIEW FROM YOUR HOME
- m) OTHER

13. WHICH TWO ARE MOST IN NEED OF IMPROVEMENT IN YELLOWKNIFE?

- a) ACCESS TO CITIES IN THE SOUTH
- b) MEDICAL FACILITIES
- c) AN INCOME IN RELATION TO THE COST OF LIVING HERE
- d) LAW AND ORDER
- e) EDUCATIONAL FACILITIES
- f) HOUSING AND ACCOMMODATION
- g) ENTERTAINMENT AND RECREATIONAL FACILITIES
- h) CHURCHES
- i) STORES AND SHOPS
- j) COMMUNICATIONS (for example, radio and television)
- k) PUBLIC UTILITIES (for example, sewers, water, roads)

- l) SOCIAL SERVICES
- m) ACCESS TO OTHER NORTHERN COMMUNITIES
- n) OTHER

14. WHICH THREE WORDS LISTED HERE BEST DESCRIBE LIFE IN YELLOWKNIFE?

- a) DEPRESSING
- b) FRIENDLY
- c) EXPENSIVE
- d) ISOLATED
- e) CHALLENGING
- f) GOSSIPY
- g) EXCITING
- h) LONELY
- i) DETERIORATING
- j) ROMANTIC
- k) BORING
- l) PROGRESSIVE
- m) TRANSIENT
- n) PEACEFUL
- o) CLIQUISH

17 - 26.

STRONGLY AGREE

AGREE

NOT SURE EITHER WAY

DISAGREE

STRONGLY DISAGREE

30.

- a) 15 - 24 years old
- b) 25 - 34 years old
- c) 35 - 44 years old
- d) 45 - 54 years old
- e) 55 - 64 years old
- f) over 65 years old

32.

- a) less than \$2,000
- b) \$2000 to \$5000
- c) \$5000 to \$9000
- d) \$9000 to \$15,000
- e) \$15,000 to \$25,000
- f) more than \$25,000

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Niven Lake

Yellowknife Bay

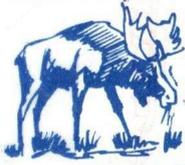
Great Slave Lake

Jolliffe Is.

211

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## SELECTED BIBLIOGRAPHY

### Books and Periodicals

- Alexander, J. W. "The Basic-Non Basic Concept of Urban Economic Functions." Economic Geography 30 (July 1954): 246-61.
- Allport, Gordon W. Personality and Social Encounter. Boston: Beacon Press, 1960.
- Atkisson, Arthur A., and Robinson, Ira M. "Amenity Resources for Urban Living." In The Quality of the Urban Environment, pp. 179-201. Edited by H. S. Perloff. Baltimore: John Hopkins, 1969.
- Berry, J. W. "Psychological Research in the North." Anthropologica 13 (Nos. 1-2, 1971): 143-57.
- \_\_\_\_\_. "Acculturative Stress in Northern Canada: Ecological, Cultural, and Psychological Factors." Unpublished Manuscript, Psychology Dept., Queen's University at Kingston, n.d.
- Blishen, Bernard R. "The Construction and Use of an Occupational Class Scale." Canadian Journal of Economics and Political Science 24 (November 1958): 519-31.
- \_\_\_\_\_. "A Socio-Economic Index for Occupations in Canada." Canadian Review of Sociology and Anthropology 4 (February 1967): 41-53.
- Bowdler, M. C. "An Architecture for the North." North 8 (No. 6, 1961): 1-8.
- Bourne, L. S. Yellowknife, N.W.T.: A Study of its Urban and Regional Economy. Northern Co-ordination and Research Centre Report 63-8. Ottawa: Department of Northern Affairs and Natural Resources, 1963.
- Bucksar, Richard G. "Elliot Lake, Ontario: Problems of a Modern Boom Town." Journal of Geography 61 (March 1962): 119-25.
- \_\_\_\_\_. "The Squatter on the Resource Frontier." Arctic 23 (September 1970): 201-204.
- Buttimer, Anne. "Social Space and the Planning of Residential Areas." Environment and Behavior 4 (September 1972): 279-318.
- Camsell, Charles. "The Yellowknife Mining District." Canadian Geographical Journal 18 (June 1939): 310-20.

- Carr, S. "The City of the Mind." In Environment for Man. Edited by W. R. Ewald. Bloomington: University of Indiana Press, 1967.
- Chapin, F. Stuart, and Logan, Thomas H. "Patterns of Time and Space Use." In The Quality of the Urban Environment, pp. 305-22. Edited by H. S. Perloff. Baltimore: John Hopkins, 1969.
- Clarke, Patricia. "Yellowknife: The Suburban Church in Mukluks." United Church Observer, October, 1974, pp. 22-23.
- Dalkey, Norman C. Studies in the Quality of Life: Delphi and Decision-Making. Lexington, Mass.: D. C. Heath, 1972.
- Dickman, P. I. "Spatial Change and Relocation." In Developing the Sub-Arctic, pp. 145-74. Edited by J. Rogge. Winnipeg: University of Manitoba, 1973.
- Downs, Rodger M. "Geographic Space Perception." In Progress in Geography, Vol. 2, pp. 65-108. London: Edward Arnold, 1970.
- Duncan, Otis Dudley. "A Socio-economic Index for all Occupations." In Occupations and Social Status, pp. 109-38. Edited by Albert J. Reiss. New York: Free Press, 1961.
- DuWors, R. E.; Beaman, J.; and Olmstead, A. Studies in the Dynamics of the Residential Populations of Thirteen Canadian Cities: Phase I: Dimensions and Significance of Turnover in Community Residential Populations. Centre for Settlement Studies, Series 5, Occasional Paper No. 3. Winnipeg: University of Manitoba, 1972.
- Erskine, Richard. "Town Planning in the Swedish Sub-Arctic." Habitat 6 (1960): 2-6.
- Ferguson, Jack. "Social Change in the Western Arctic." In Social And Cultural Change in Canada. 2 vols. Vol. 1, pp. 27-50. Edited by W. E. Mann. Toronto: Copp Clark, 1970.
- Flax, Michael J., A Study in Comparative Urban Indicators: Conditions in 18 Large Metropolitan Areas. The Urban Institute Report No. 1206-4. Washington, April 1972.
- Franklyn, Gaston J. "Alienation and Achievement among Indian-Metis, and Non-Indians, in the Mackenzie District, N.W.T." Canadian Vocational Journal 10 (May 1974): 11-19.
- Fried, Jacob. "White-Dominant Settlements in the Canadian Northwest Territories." Anthropologica 5 (No. 1, 1963): 57-67.
- \_\_\_\_\_. "Settlement Types and Community Organization in Northern Canada." Arctic 16 (June 1963): 93-100.
- "Frobisher Bay, N.W.T.: Federal Government Project for a New Town." The Canadian Architect 3 (November 1958): 44-49.

- Gans, Herbert J. "The Balanced Community: Homogeneity or Heterogeneity in Residential Areas." Journal of the American Institute of Planners 27 (August 1961): 176-84.
- The Levittowners: Ways of Life and Politics in a New Suburban Community. New York: Pantheon Books, 1967.
- Gemini North Ltd. For Canadian Arctic Gas Pipeline Ltd. Social and Economic Impact of Proposed Arctic Gas Pipeline in Northern Canada. 7 vols. Yellowknife; 1974.
- Gordon, Alex G. Housing and the Social Environment: Northwest Territories and Greenland, A Comparison. Yellowknife: Government of the Northwest Territories, 1971.
- Gould, Peter. "On Mental Maps." In Man, Space, and Environment, pp. 260-82. Edited by Paul W. English and Robert C. Mayfield. New York: Oxford University Press, 1972.
- Gulick, J.; Bowerman, C.; and Back, K. W. "Newcomer Enculturation in the City: Attitudes and Participation." In Urban Growth Dynamics, pp. 315-58. Edited by F. S. Chapin and S. F. Weiss. New York: John Wiley, 1962.
- Hall, Oswald. "The Social Consequences of Uranium Mining." University of Toronto Quarterly 26 (January 1957): 226-43.
- Harrington, Lyn. "Thompson, Manitoba - Suburbia in the Bush." Canadian Geographical Journal 81 (October 1970): 154-63.
- Helm, June. "The Nature of Dogrib Socio-Territorial Groups." In Man The Hunter, pp. 118-25. Edited by Richard B. Lee and Irven DeVore. Chicago: Aldine, 1968.
- Helson, H. Adaptation-Level Theory. New York: Random House, 1964.
- Holmes, John. "Problems in Location Sampling." Annals of the Association of American Geographers 57 (December 1967): 757-80.
- Hughes, Charles C. "Observations on Community Change in the North: An Attempt at Summary." Anthropologica 5 (No. 1, 1963): 69-79.
- Hugill, Peter J. "Social Conduct on the Golden Mile." Annals of the Association of American Geographers 65 (June 1975): 214-28.
- Jackson, L. E., and Johnston, R. J. "Structuring the Image: An Investigation of the Elements of Mental Maps." Environment and Planning 4 (1972): 415-27.
- Jacobs, Jane. The Death and Life of Great American Cities. Modern Library Edition. Toronto: Random House, 1969.

- Jacobsen, George. "The Northern Urban Scene." In Canada's Changing North, pp. 291-96. Edited by William C. Wonders. Toronto: McClelland and Stewart, 1971.
- Johns, D. H. Environmental Quality Evaluation and Impact Analysis Methodology. Center for Settlement Studies, Series 2, Research Report 14. Winnipeg: University of Manitoba, 1973.
- Johnston, R. J. "Mental Maps of the City: suburban preference patterns." Environment and Planning 3 (1971): 63-71.
- Jones, Murray. "Metropolitan Man, Some Economic and Social Aspects." In Planning the Canadian Environment, pp. 235-49. Edited by L. O. Gertler. Montreal: Harvest House, 1968.
- Jubinville, Real. Correction Services in the Northwest Territories: Report of the Study Committee. Department of Social Development, Government of the Northwest Territories; and Department of the Solicitor General, Government of Canada. February, 1971.
- Judd, D. A. W. "Urbanization and Administration." Essays on Mid-Canada, pp. 75-82. Mid Canada Development Foundation. Toronto: Maclean-Hunter, 1970.
- Kain, J. F., and Quigley, J. M. "Evaluating the Quality of the Residential Environment." Environment and Planning 2 (1970): 23-32.
- Kates, Robert W., and Wohlwill, J. F. "Man's Response to the Physical Environment." Journal of Social Issues 22 (No. 4, 1966): 15-20.
- Kuo, Chun-Yan. A Study of Income Distribution in the Mackenzie District of Northern Canada. Ottawa: Department of Indian Affairs and Northern Development, 1972.
- Korosëil, Paul M. "The Changing Landscape of Whitehorse, Y.T.: A Historical Perspective." In Peoples of The Living Land: Geography of Cultural Diversity in British Columbia, pp. 183-211. Edited by Julian V. Minghi. Vancouver: Tantalus, 1972.
- Kupsch, W. O. "The New Northwest Territories." Canadian Geographical Journal 76 (January 1968): 10-15.
- Ladd, Florence C. "Black Youths View Their Environment: Neighbourhood Maps." Environment and Behavior 2 (June 1970): 74-99.
- Lamanna, Richard A. "Value Consensus Among Urban Residents." Journal of the American Institute of Planners 30 (November 1974): 317-23.
- Langois, Claude. "Nos Villes Minières: Un Echech?" Community Planning Review 7 (March 1957): 52-63.
- Lansing, J. B., and Marans, R. W. "Evaluation of Neighbourhood Quality." Journal of the American Institute of Planners 35 (1969): 195-99.

- Lee, Douglas H. K. "The Role of Attitude in Response to Environmental Stress." Journal of Social Issues 22 (No. 4, 1966): 83-91.
- Lee, Terence. "Psychology and Living Space." Transactions of the Bartlett Society 2 (1963-1964): 9-36.
- \_\_\_\_\_. "Urban Neighbourhood as a Socio-Spatial Schema." Human Relations 21 (August 1968): 241-67.
- Ley, David F. "Residential Efficacy and the Quality of Inner City Life." Unpublished Paper in Mimeograph, Department of Geography, University of British Columbia, 1974.
- Lotz, James R. Northern Realities. Toronto: New Press, 1970.
- \_\_\_\_\_. "The Squatters of Whitehorse: A Study of the Problems of New Northern Settlements." Arctic 18 (September 1965): 173-188.
- Lowenthal, David. "Research in Environmental Perception and Behavior." Environment and Behavior 4 (September 1972): 333-42.
- Lucas, Rex A. Minetown, Milltown, Railtown. Toronto: University of Toronto Press, 1971.
- Lynch, Kevin. The Image of the City. Cambridge: M.I.T. Press, 1960.
- MacBain, S. Mackenzie District Manpower Survey. Economic Staff Group. Ottawa: Department of Indian Affairs and Northern Development, 1971.
- McCracken, J. "Yellowknife Plans its Future." Community Planning Review 17 (Fall 1967): 12-13.
- Makale, Holloway and Associates Ltd. General Plan: City of Yellowknife. Edmonton, 1971.
- \_\_\_\_\_. Old Town Redevelopment Study: City of Yellowknife. Edmonton, 1971.
- McReynolds and Associates. Situational Appraisal of Regional Correction Need. For Government of the Northwest Territories. Willowdale, January, 1972.
- Mann, Peter H. "The Socially Balanced Neighbourhood Unit." Town Planning Review 29 (July 1958): 91-98.
- Matthiasson, J. S. Resident Perceptions of Quality of Life in Resource Frontier Communities. Centre for Settlement Studies, Series 2, Research Report No. 2. Winnipeg: University of Manitoba, 1970.
- Michelson, William M. Man and His Urban Environment: A Sociological Approach. Reading: Addison-Wesley, 1970.

- Mid Canada Conference Task Force Reports. Mid Canada Development Foundation, Toronto, 1971.
- Moss, A. E. "Design of Northern Communities." Paper presented at Third Northern Resources Conference. Whitehorse, 10 April 1969.
- Nightingale, Jan. Occupational Analysis of the Mining Industry in the Northwest Territories. Ottawa: Department of Indian Affairs and Northern Development, 1968.
- Okpik, Abe. "Bewildered Hunters in the Twentieth Century." In Canada's Changing North, pp. 297-301. Edited by W. C. Wonders. Toronto: McClelland and Stewart, 1971.
- Oppenheim, A. N. Questionnaire Design and Attitude Measurement. New York: Basic Books, 1966.
- Page, J. E. "On Urbanization in North America and Mid-Canada Development." Essays on Mid-Canada, pp. 231-48. Mid-Canada Development Foundation. Toronto: Maclean-Hunter, 1970.
- Palmer, John, and St. Pierre, Marcel. Monitoring Socio-Economic Change. Environmental-Social Program, Northern Pipelines, Report No. 74-9. Ottawa: Information Canada, May, 1974.
- Palys, T. S. Social Indicators of Quality of Life in Canada: A Practical/Theoretical Report. Manitoba Dept. of Urban Affairs Research Report. Winnipeg, August 1973.
- Park, Robert E. "The City: Suggestions for the Investigation of Human Behavior in the Urban Environment." In The City, pp. 1-46. Edited by R. E. Park and E. W. Burgess. Chicago: University of Chicago Press, 1967.
- Parsons, G. F. Arctic Suburb: A Look at the North's Newcomers. Mackenzie Delta Research Report No. 8. Ottawa: Department of Indian Affairs and Northern Development, 1970.
- Pearson, Norman. "Elliot Lake: Experiment in Conformity." Town and Country Planning 27 (January 1959): 189-203.
- Pocock, D. C. D. "City of the Mind: A Review of Mental Maps of Urban Areas." Scottish Geographical Magazine 88 (September 1972): 115-124.
- \_\_\_\_\_. "Urban Environmental Perception and Behavior: A Review." Tijdschrift Voor Econ. en Soc. Geografie 62 (Sept./Okt. 1971): 321-26.
- Porteus, J. D. "The Nature of the Company Town." Transactions of the Institute of British Geographers 51 (1970): 127-42.

- . "Design With People: The Quality of the Urban Environment." Environment and Behavior 3 (1971): 155-78.
- Price, Ray. Yellowknife. Toronto: Peter Martin Associates, 1967.
- Puzanova, V. F. "Some Aspects of the Development of Labour Forces and Industrial Centres in the Canadian North." In Problems of the North 12 (1969): 279-92. English Translation by the National Research Council, Ottawa.
- Richardson, Nigel H. "A Tale of Two Cities." In Planning the Canadian Environment, pp. 269-284. Edited by L. O. Gertler. Montreal: Harvest House, 1968.
- Ridge, F. Gerald. "General Principles for the Planning of Sub-Arctic Settlements." Ph.D. dissertation, McGill University, 1953.
- Roberts, A. "Design for the North." Canadian Architect 1 (November 1956): 20-22.
- Robinson, Ira M. New Industrial Towns on Canada's Resource Frontier. Resource Paper No. 73, Department of Geography, University of Chicago, 1962.
- Rogge, John, ed. Developing the Subarctic. Proceedings of A Symposium of the 22nd International Geographical Union Congress. Dept. of Geography, University of Manitoba, Winnipeg, 1973.
- Saarinen, Thomas F. Perception of the Environment. Association of American Geographers Resource Paper No. 5, Washington, 1969.
- St. Pierre, Marcel. The Socio-Economic Implications of Gold Mine Closure in the Yellowknife Region. Northern Economic Development Branch. Ottawa: Department of Indian Affairs and Northern Development, 1972. Declassified 1974.
- Shaw, William G. A. "Evaluation of Resource Towns: Planned and Unplanned." M.A. Thesis, University of Alberta, 1970.
- Smith, David M. The Geography of Social Well-Being in the United States. New York: McGraw-Hill, 1973.
- Smith, Derek G. "Occupational Preferences of Northern Students." Unpublished paper in mimeograph, Department of Anthropology, Carleton University, 1973.
- Sonnenfeld, Joseph. "Geography, Perception, and the Behavioral Environment." In Man, Space, and Environment, pp. 244-51. Edited by Paul W. English and Robert C. Mayfield. New York: Oxford University Press, 1972.
- . "Social Interactions and Environmental Relationship." Environment and Behavior 4 (September 1972): 267-77.

- Stager, John K. Old Crow, Y.T. and the Proposed Northern Gas Pipeline. Environmental-Social Program, Northern Pipelines, Report No. 74-21. Ottawa: Information Canada, 1974.
- Staveley, M. "The Population Geography of Yellowknife, N.W.T." Albertan Geographer 2 (1965-66): 12-24.
- Stephens, F. H. "Yellowknife, 1947." Western Miner and Oil Review 20 (November 1974): 55-58.
- Stevenson, D. S. Problems of Eskimo Relocation for Industrial Employment. Northern Science Research Group Report 68-1. Ottawa: Dept. of Indian Affairs and Northern Development, May, 1968.
- Stutz, F. P. Review of The Geography of Social Well-Being in the United States, by David M. Smith. Annals of the Association of American Geographers 64 (March 1974): 158-60.
- Suttles, Gerald. The Social Order of the Slum. Chicago: University of Chicago Press, 1968.
- Tanimura, H. "Housing in Resource Frontier Communities." Fourth Annual Report, 1971, pp. 91-92. Centre for Settlement Studies. Winnipeg: University of Manitoba, 1971.
- Troy, P. N. "Residents and Their Preferences: Property Prices and Residential Quality." Regional Studies 7 (June 1973): 183-92.
- Turner, John. "Barriers and Channels for Housing Development in Modernizing Countries." Journal of the American Institute of Planners 33 (May 1967): 167-81.
- Usher, Peter J. Fur Trade Posts of the Northwest Territories 1870-1970. Northern Science Research Group Report 71-4. Ottawa: Information Canada, 1971.
- \_\_\_\_\_. "Metropolis and Hinterland." Unpublished Paper in Mimeograph, 1974.
- Western, John. "Social Groups and Activity Patterns in Houma, Louisiana." Geographical Review 63 (July 1973): 301-21.
- Whelly, Jim. "Yellowknife." Arctic in Colour, Spring 1974, pp. 23-29.
- White, R. W. "Motivation Reconsidered: The Concept of Competence." Psychological Review 66 (1959): 297-333.
- Wilson, Robert L. "Livability of the City: Attitudes and Urban Development." In Urban Growth Dynamics, pp. 359-99. Edited by F. S. Weiss. New York: Wiley, 1962.
- Wingo, Lowdon. "The Quality of Life: Toward a Microeconomic Definition." Urban Studies 10 (February 1973): 3-18.

- Wirth, Louis. "Human Ecology." American Journal of Sociology 50 (May 1945): 483-88.
- Wohlwill, Joachim. "The Physical Environment: A Problem for the Psychology of Stimulation." Journal of Social Issues 22 (No. 4, 1966): 29-38.
- Wolforth, John. The Evolution and Economy of the Delta Community. Northern Science Research Group, Mackenzie Delta Research Project No. 11. Ottawa: Department of Indian Affairs and Northern Development, 1971.
- Zehner, R. B. "Neighbourhood and Community Satisfaction: A Report on New Towns and Less Planned Suburbs." In Environment and the Social Sciences: Perspectives and Applications, pp. 169-83. Edited by J. F. Wohlwill and D. H. Carson. Washington Psychological Association, 1972.

#### Government Departmental Publications

- Department of Indian Affairs and Northern Development. "Comparative Study of Total Pay Package: Northwest Territories, Yukon Territory, and Federal Government Employees in the North." Program Management Evaluation Team, Ottawa, October 1971.
- Department of Indian Affairs and Northern Development. Mines and Minerals Activities North of 60. 1968-1973 inclusive. Published annually by the Mining Section, Oil and Minerals Division, Ottawa.
- Department of Indian Affairs and Northern Development. Northwest Territories Statistical Abstract 1973. Ottawa, August, 1973.
- Department of Indian Affairs and Northern Development. Registered Indian Population by Age-Sex-Residence, 1973. Ottawa, 1973.
- Department of Indian Affairs and Northern Development. "Survey of Salaries and Subsidies: Federal and Territorial Governments and Private Industry, Yellowknife, N.W.T." 5 sections. Yellowknife, February 1974.
- Economic Council of Canada. Eleventh Annual Review: Economic Targets and Social Indicators. Ottawa: Information Canada, 1974.
- Government of the Northwest Territories. Report of the Northwest Territories Council Task Force on Housing. Yellowknife, June 1972.
- Government of the Northwest Territories. Report of the Task Force on Personnel Policy and Management. Yellowknife, 1974.
- Government of the Northwest Territories, Department of Information. "1974 Economic Data for Yellowknife." Yellowknife, 1974.

Government of the Northwest Territories, Department of Industry and Development. "Economic Data for the Community of Yellowknife." Yellowknife, 31 March 1972.

Government of the Northwest Territories, Department of Local Government. Assessment Records, City of Yellowknife. 1974.

Government of the Northwest Territories, Department of Social Development. "Monthly Social Assistance Expenditures by Cause of Need: Fort Smith Region, Settlement of Yellowknife, and Yellowknife Indian Village; August 1974." Yellowknife, 1974.

Government of the Northwest Territories, Department of Social Development. "Social Assistance Cases by Settlement, Yellowknife Town and Yellowknife Indian Village." April 1974.

Government of the Northwest Territories, Liquor Control System. Annual Reports 1971 - 1973. Yellowknife, December 1971 - December 1973.

Statistics Canada, Consumer Income and Expenditure Division. "Urban Family Expenditure, 1972: Selected Tables." Ottawa, 1974.

U. S. Department of Health, Education, and Welfare. Toward A Social Report. Ann Arbor: University of Michigan Press, 1970.

#### Miscellaneous Reports

Canadian Mines Handbook: 1973-74. Toronto: Northern Miner Press, 1973.

City of Yellowknife. The 1974 City Census.

City of Yellowknife. Yellowknife Directory of Clubs and Organizations: 1974-75.

Cominco Ltd., Con Office. List of General Roll Employees on January 1st, 1974. Yellowknife, 1974.

Consumers Association of Canada, Yellowknife Branch. "Report on the 1973 Food Price Survey." Yellowknife, February 1974.

Joint Brief of the City Councils of Whitehorse and Yellowknife. Yellowknife: May 30, 1973.

1972 Official City Directory: Yellowknife. Territorial Publications, Whitehorse, Y.T., 1972.

1974 Yellowknife City Directory. M&S Publications, Yellowknife, September 1974.

Northwest Territories Division, Canadian Mental Health Association. Project Mental Health: A Study of Opinion North of 60. Saskatoon: Marcotte Research Centre, 1973.

Official Telephone Directory: Northwest Territories, District of Mackenzie. Canadian National Telecommunications, 1974.

Polar Associates. "Northwest Territories Housing Corporation: Need and Demand Study for Yellowknife." Yellowknife, 1974. (Mimeographed.)

Royal Canadian Mounted Police, Yellowknife Division. "Uniform Crime Reports." Yellowknife, 1967-1974.

"Urban Preliminary Alphabetical List of Electors." Electoral District of Northwest Territories, Town of Yellowknife, Urban Polling Divisions Nos. 86 through 99, and 135, May 1974.

### Newspapers

Northern Miner, 27 April 1967; 26 April 1973.

Toronto Globe and Mail, 14 April 1971.

Yellowknife News of the North, January 1974 - September 1975.

Yellowknifer, May 1974 - August 1974.

### Interviews

Assistant Manager, Yellowknife Inn. Interview, 20 August 1974.

Coddington, M. Social Worker, Department of Social Development, Government of the Northwest Territories. Interview, 19 August 1974.

Davidson, R. A. Assistant Director, Department of Social Development, Government of the Northwest Territories. Interview, 19 August 1974.

Dewhurst, Gary. Department of Administration, Government of the Northwest Territories. Interview, 19 August 1974.

Deputy Registrar General of Vital Statistics, Government of the Northwest Territories. Interview, 23 July 1974.

Findlay, R. Mayor, City of Yellowknife. Interview, 9 August 1974.

Loveday, W. J. Manager, Canada Manpower Centre, Yellowknife, N.W.T. Interview, 21 August 1974.

Pringle, S/Sgt. R.C.M.P. Yellowknife Detachment. Interview, 11 July 1974.

Rivett, A. T. Personnel Supervisor, Giant Mines, Yellowknife, N.W.T. Interview, 20 August 1974.

Smith, Peter. Personnel Supervisor, Con Mine, Yellowknife, N.W.T.  
Interview, 23 August 1974.

Tetteroo, L. Yellowknife Building Inspection Superintendent, Yellow-  
knife, N.W.T. Interview, 9 July 1974.

Wilkins, C. T. Chief of Corrections, Department of Social Development,  
Government of the Northwest Territories. Interview, 25 July 1974.