

# the mysterious east

an independent atlantic magazine



Another  
Bug  
Problem

Limits  
to  
Growth

Public  
Poison  
Program

## ABOUT the mysterious east

IT'S A MATTER OF BLEAK and ironic satisfaction, to those of us who are sceptical about the theories of industrial development and progress cherished by people like the New Brunswick Development Corporation and Industrial Estate Limited, to follow the progress of an establishment like Fundy Forest Industries at Lake Utopia in New Brunswick's Charlotte County. Opened last August with fanfare and subsidies, it's now broke and looking for more subsidies, including an already-granted \$2,000,000 loan from the provincial government.

There is a temptation, of course, to say "we told you so", but there's no rush; if we miss saying it this time, another failure will come down the pipe pretty soon. It's much more important, for those of us who see this as a pattern rather than just a freak accident, to ask why this happens.

It's fashionable these days to explain this sort of thing as exploitation, as another of the ways in which the poor are ripped off in order to subsidize more profits for the already rich, as the conscious actions of fiendishly evil capitalist exploiters. But the New Brunswick Development Corporation doesn't stand to gain from stealing the land of the people of Lorneville in order to subsidize Continental Oil Company; nobody at IEL made anything out of Clairtone. No, the situation is much more complex than that.

The explanation of the people who believe in the subsidization of industry is simple, and it's been around for a long time. K.C. Irving has used it for years in demanding long-term tax breaks for his companies. It goes like this: the Maritimes is a depressed area. What that means is that people are hungry; they're hungry because they can't get work; they can't get work because there isn't enough industry in the area to hire them. There isn't enough industry because there isn't enough money around to support industries by buying their products, so when an industry does come here,

it's a long way from its market (and unless it's a smelter or a fish processing plant or a pulp mill, a long way from its source of supply as well). So a business, making its decision on the basis of the balance sheet, will choose to locate in central Canada rather than here, all other things being equal; and what people like Devco and IEL do is to make things other than equal, using your money and ours.

Why such a high percentage of failures? Partly because failures are getting some publicity recently, of course. Partly because IEL and DEVCO don't know a hell of a lot about the fields they're plowing our money into, and so are targets for sharpers like Jerome S. Spevack, the architect of heavy water. Partly because the policies of governments are basically concerned with getting elected, so that public openings of industries are highly valued events — look at Premier Hatfield opening the Fundy Forest mill, for instance, and neglecting to mention disastrous conditions of all the other paper mills in the province. Or look at Louis Robichaud insisting on a smelter at Bathurst when, economically, it was premature at best. And partly because the fact that governments essentially give our money away, an action which attracts sharpers and promoters and purveyors of long-shots like honey attracts flies.

What can be done? Well, of course, there are a lot of long-term solutions, but they all involve radical changes that don't seem likely to occur in time to help any one of us who are alive now, or our children. And their children are so problematic that it's difficult to get excited about them. One step that could be taken right now — that must be taken, is our governments (that's us, friend) are to stop being taken by these shysters — is to insist that money given to corporations isn't given, it's invested: we get dollar for dollar. If we're the main financial interest in a corporation, let's see that reflected in power. Let's insist that our governments stop giving away grants, loans, tax concessions, and start buying stock. Voting stock.

Right now.

## INSIDE

**Contributing Editors:** Garry Allen, Donald Cameron, Robert Campbell, Russell Hunt, Andrew Scott.

**Staff writers:** Ed Levesque, Ralph Littlecock

**Layout and Design:** Janice Oliver

**Subscription and Circulation:** Susie Levesque

**Quality Control:** Waldo Shears

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RAY DROHAN

# CLEARCUTTING IN NEW BRUNSWICK



Clearcutting is the most popular method of harvesting because it is the most immediately profitable means for the dollar-hungry timber barons simply cut as much timber as possible in the shortest time.

**I**N THE AGE OF RAPID urbanization, modern man has quickly forgotten the bonds of kinship which existed between his earlier ancestors and the forest. The mythology of the Greeks, Druids, Slavs, Africans, Buddhists and North American Indians is filled with tales of gods and goblins of the woods. In our haste to dismiss these myths as the products of ignorance and superstition, we frequently overlook the pagan symbol of our most significant festival — that of the Christmas tree. The ancients thought of the tree as having the powers of sight, touch, hearing, and speaking. As civilization developed, man's attitude toward the forest changed. In the Middle

Ages with increasing agriculture, deforestation was promoted and gradually spread throughout the civilized world. To the eminent ecologist, Jean Dorst, the concept of deforestation was essential to man's way of thinking, for forest was identified with savagery. This "psychosis" (as Dorst termed it) had a sound economic and social basis and was propagated down through the centuries. Charlemagne granted parts of the forest to all men strong enough to clear them. The modern equivalent of this procedure is the leasing of Crown lands by provincial governments to large companies such as J.D. Irving Ltd. and Fraser Cos. Ltd., in New Brunswick, which possess the material and financial strength required to clear our forests.

Modern-day Canada is essentially a forest nation. Our forefathers came into possession of one of the most richly endowed countries in the world. It is fair to say that they

Ray Drohan is a former member of the New Brunswick Journalism Co-op. He is presently living in Sydney, Nova Scotia, and doing research on Cape Breton's housing difficulties.

did not appreciate its great natural wealth. They took from it all they could and dismissed the prospects of the future. Perhaps they were confident that Canada's resources were unlimited and felt that the future would take care of itself. As one writer described it: "Canadians were like children around a candy barrel, eating themselves sick". They mined the farms and forests and ruined invaluable assets which, with prudent management and thought for the future, might have remained as continuing sources of wealth for later generations.

## THE DESTRUCTION OF THE FORESTS

Nowhere is this more apparent than in the way we completed the destruction of our greatest natural resource. This circumstance was described by the president of the Ontario Lumberman's Association at their annual meeting in January, 1901.

*This vast forest, extending from Lake of the Woods eastward through the Nipigon, Algoma and Georgian Bay districts to the Ottawa River, is the most valuable in the world. While it contains excellent spruce for paper and birch for furniture, it is the natural habitat for the most valuable tree of them all, the lordly white pine. In New Brunswick the pine has disappeared, in Quebec forest fires and the work of the lumberman have taken their toll, but in some parts of Quebec and in Ontario there are stands of white pine to last this country for generations.*

Pine was valuable building material and in the period 1885-1900, the sawmills in the U.S. devoured the supplies in Michigan, Wisconsin and Minnesota. Many American firms, as a result of Canadian laws prohibiting the export of saw logs to the U.S., moved across the border, mills and all. The tremendous demand for lumber in both the U.S. and eastern Canada soon spelled the destruction of the white pine forest. Large areas of land have been plundered by fires set by men who felt the forest was in such endless supply as to constitute a hindrance to urban expansion. The sorrowful evidence of the destruction of our forests accorded by history makes it necessary to analyse the consequences of treating our forests as yet another crop to be reaped and bartered on the world market. When the white man arrived, the east coast of the U.S. and Canada was covered with dense forest extending from the Atlantic almost to the Mississippi Valley. Deforestation was alarmingly rapid. It has been estimated that of the original 420 million wooded areas only 17 to 20 million remain and that only a fraction of these represent primitive forest associations. The accelerated demand for forest products which constitutes an ever-increasing threat on our remaining accessible forest stands, requires that Canadians accept the need for the conservation of our forests.

## FOREST MANAGEMENT

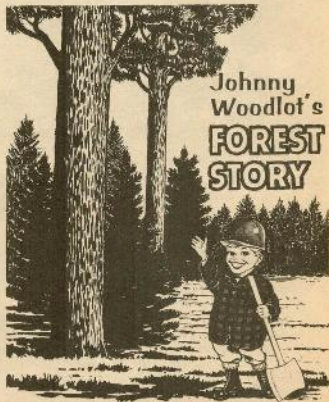
In the old days the clearing of forests was carried out without any regard for the future. Settlement and agriculture were the two prime concerns and there was little

management of trees as a renewable resource. Today, however, most forest management is associated with agricultural crop management — "to be planted, thinned, fertilized, sprayed, protected and harvested . . ." With 85% of New Brunswick covered with forests, pulp and paper, lumber and the manufacture of articles of wood constitute the major industries of the province. Not surprisingly, the concept of forest management in the province has overriding priority — economics and profit. The symbol of the forest industry of New Brunswick is effectively embodied in a caricature of a woodman which adorns the cover of a publicity pamphlet issued by the New Brunswick Department of Natural Resources. A cherubic-faced young boy, garbed in the traditional Macintosh and high boots of the logger, brandishes a huge axe in one small hand while waving cheerfully with the other. In the course of the booklet we are informed that his name: *is Johnny Woodlot. He is the symbol of everyone of us who has an interest in the preservation of our vast woodlands and forests.*

We are also told that:

*His job is to help us all understand more about our forest lands and how we can help in preserving them. Johnny's axe and clothes are symbols of the industry which is so important to our economy . . . he represents the youth of our country who will one day be responsible for our greatest heritage, the forests. (If there are any left.)*

Johnny Woodlot is an extremely apt representation of the industry which attempts to propagate an ambivalent image of maximizing profits while at the same time ensuring conservation. Economics, with its frequent price of



The symbol of the forest industry of New Brunswick is effectively embodied in a caricature of a woodman which adorns the cover of a publicity pamphlet issued by the New Brunswick Department of Natural Resources.

devastation, is inextricable intertwined in the ethic which overlooks the balanced treatment of our natural resources. The outlook becomes more bleak when we consider that the axe is rapidly being replaced by more mechanized methods of harvesting. Perhaps Johnny Woodlot should be depicted operating a chain saw or a wheeled skidder — a more up-to-date picture of the industry.

In New Brunswick as in most forest regions of the world, the most widely practiced method of harvesting a forest is the wholesale removal of an entire stand in one cutting operation, or clearcutting. Cutting is the most direct and powerful means of either sound management or abuse of a forest, depending on how it is done. It is not merely the harvesting of wood, it is, in fact, roughly analogous to a surgical operation. A proper cut ensures that the forest will be as good as or even better than before. Done badly, the cutting will allow the forest to suffer tremendously and in many cases prevent recovery. Cutting is obviously best when it satisfies as fully as possible the needs of both the present and the future. Unfortunately the assurance of a sound investment in the future is frequently overshadowed by the demands of present logging practices.

## CLEARCUTTING AND PULPMANIA

Clearcutting is the most popular method of harvesting because it is the most immediately profitable means for the dollar — hungry timber barons simply cut as much timber as possible in the shortest time. In present day New Brunswick, economics still control forest management. With the great world demand for pulp the industry has narrowed itself to mostly pulp production. Such a limited focus has numerous disadvantages since softwoods such as black spruce, the best species for pulp production, are encouraged while other species are gradually being superceded. Most black spruce stands are harvested by clearcutting which has a detrimental effect on the shade "loving" or shade tolerate species in the stands. Red spruce, which has a slow rate of growth and which requires shade to prosper will be eliminated by clearcutting. "Pulpmania" is also wiping out more beautiful species such as beech and birch which demand shade. Provinces like New Brunswick suffer from this pulp emphasis because her forest industry has been automated and completely geared to the production of one product. The emphasis retards the cultivation of the aesthetically beautiful mixed stands of both hard and soft woods. The manufacture of pulp and paper is by far the most important industry in the Province and the eight mills in New Brunswick use about 25 million dollars worth of wood from our forests annually. Spruce, fir, and jack pine and rela-



The Forestry Association of New Brunswick recommends that areas which lack advanced growth should be seeded and that areas which will erode badly or become swampy if left bare should not be clearcut.

tively small amounts of hardwoods provide the raw material for these mills. The manufactured values of the products of the pulp and paper mills is about \$130 million, of which about \$110 million worth is exported. In comparison, some 200 saw mills in the province use, on an eight year average, about \$14 million worth of sawlogs. Less than 15% of the total logs used are of hardwood species. Most foresters are not unexpectedly, in agreement with the current harvesting practices. One prominent New Brunswick official reflected a popular opinion when he expressed a hope that unmanageable species such as balsam fir, could disappear entirely from New Brunswick forests. On the other hand, a silviculture expert voiced a different viewpoint when he said that "the maintenance of a forestry policy which encourages larger, better quality trees (necessarily older) is much more advantageous than producing a single species for pulp such as black spruce." In fact recent government decisions to promote hard woods for pulp present a slightly more encouraging picture for the survival of many diverse types of wood. The construction of the recent hardwood-using St. Anne-Nackawic Pulp Mill and the decision to construct a hardwood-using mill at St. George indicates some increased awareness of forest management planning.

Foresters realize that the planting of monocultures (i.e., black spruce) enhances the possibility of the eruption of parasites and diseases from which the species was relatively free in mixed-stands. With the outbreaks of insects such as spruce budworm, authorities were able to justify the large scale spraying of pesticides. This spraying policy was initiated by the provincial government and the N.B. International Paper Co. in an attempt to curtail a budworm epidemic which had infested an area of over 2000 square miles in 1951. This policy developed until by 1957 there were 15 airstrips and 187 planes devoted to dispensing 2,500,000 gallons of insecticides over the province's forests. During the 1967 programme, some 1,039,180 acres of forest were sprayed by Forest Protection Ltd., a provincial Crown corporation comprising the N.B. government and five large Pulp and Paper companies. A breakdown of this total figure illustrates that 766,520 acres were sprayed with DDT, 72,850 acres with Phosphomidon along salmon producing rivers to avoid contamination from DDT, and 199,810 acres sprayed with Sumithon and combinations of insecticides, Phosphomidon and Sumithon. The cost of this spraying is enormous - to date the programmes has cost over \$21,000,000 - a moderate estimate. A direct association between clearcutting and the establishment of monocultural softwoods and the epidemics of budworm becomes fairly obvious.

## EXECUTING THE FINAL HARVEST

The three most commonly recognized methods of executing the final harvest in even-aged stands can be defined. (A forest is even-aged when practically all the trees are of the same age even though they may differ in size on account of their different rates of growth).

**A. Shelterwood Method:** Saleable timber is removed in a series of cuttings. This permits the establishment of natural reproduction under the partial shade of

the seed source. The shelter is removed when the new stand is well established. Usually the cut area is treated after logging to remove unsaleable trees and to prepare a seedbed.

**B. Seed Tree Method:** All of the saleable timber is removed in one cut except for a few of the better trees which are left out singly or in small groups to seed the cut area naturally.

**C. Clearcutting in Strips, Patches or Blocks:** All saleable trees are removed in one cut. The cut area is then prepared for either natural regeneration, artificial seeding, or the planting of nursery-grown trees.

The large pulp companies of New Brunswick all practice clearcutting. The Shelterwood Method supposedly is uneconomical because considerable time is needed to regenerate a forest. The most frequently cited drawbacks of the seed tree method include ineffectiveness in establishing a new stand of desired species, the mortality loss of seed trees and the economic difficulties of removing seed trees at a later time without damaging the young stand of trees. By far the majority of forestry experts dismiss these two methods because of their impracticality, leaving clearcutting as the one logical and economically viable alternative. According to experts, clearcutting is the most sound means of regenerating the pioneering stands which comprise New Brunswick's forests. The method is efficient, productive and economical when the various costs and returns of alternate methods are considered. However these advantages depend on a proper application of the method.

According to the Canadian Forestry Association of New Brunswick:

*the clearcut area should be small in comparison with the size of the forest; the cuts should be staggered so that the stands forming the next crop will differ in age from the ones adjacent to them.*

## CLEARCUTTING HOW AND WHERE

The Director of the Forest Division of the Lands and Forests office of the New Brunswick government, Mr. Wolstenholme, commented that his government recommends single clearcuts of not more than 500 acres. However, the provincial government exercises very little actual control over the size of cuts executed by pulp companies. One prominent example of the blatant exploitation which is typical of our pulp companies is the devastating clearcut which has been carried out along the Bartibog River located between Newcastle and Bathurst. This one cut has been estimated to exceed 6000 acres. Such instances of gross malpractice are the rule rather than the exception all across New Brunswick. Another example illustrates the inability of the provincial government to regulate forest management. The government has attempted to impose restrictions prohibiting the cutting of shade trees on either side of a stream to prevent the eutrophication of these streams by thermal pollution. Mr. Wolstenholme elaborated on the disregard of the government's decree that shade trees within 200 yards of a stream be untouched. It seems that there was some debate about "what actually constituted a stream". That the Director of the Forest Division

was not entirely unsympathetic to the plight of commercial companies in their desire to maximize profits at the expense of ecological considerations was fairly obvious. He speculated that "half of the merchantable trees harvested would still be standing" if this rule was strictly enforced because of the abundance of streams in New Brunswick forests.

The Forestry Association of New Brunswick recommends that areas which lack advanced growth should be seeded and that land which will erode badly or become swampy if left bare should not be clearcut. These guidelines apply to the ideal situation and are often ignored in management practice. Areas of intense erosion in the Skiff Lake and Eel Lake districts exist where slopes have been clearcut in defiance to all maxims governing sound silviculture practice. These areas have not regenerated in the 10 to 15 years since they have been logged, and chances are they will continue to stand as sorry monuments to the greed and ignorance which has dominated forestry policy.

## ENVIRONMENTAL EFFECTS

Aside from the casual empirical evidence afforded by the eye there exist few statistics to determine the environmental effects of clearcutting on water and wildlife which may be directly attributed to forest practice. At present there is a conspicuous lack of information on pertinent areas such as the possible effects of clearcutting on thermal pollution of our waters. However, in a report for the Canadian Zoological Society, two U.N.B. biology professors, Messrs. U. Paim and W.D. Seabrook did comment on the deterioration of New Brunswick watersheds caused by the wastes of provincial pulp mills. They reported that "one pulp mill alone spoils about a 35 mile stretch of the Upper Saint John River". Also, "dissolved oxygen concentration below a sulphite mill on the St. Croix River reached almost zero", and young salmon were "dying within minutes of being placed in the water". The effects of the massive spraying of DDT pesticides com-

mented by waste pollution of pulp mills had severe effects on the province's salmon population. Experiments and counting in the watersheds during and after forest spray operations revealed a mortality rate of over 90% in under-yearling salmon. The problem still persists although DDT is no longer used. Since DDT degrades very slowly in soil, its residues persist for many years and can be returned to rivers in the runoff from the watersheds. Deforestation through clearcutting increases erosion and markedly accelerates run-off.

Clearcutting also has a profound effect on wildlife, wildlife biologists indicate that small clearcuts are most beneficial for indigenous animals. The margins of a clearcut area, referred to as "edge", form prime habitats for wildlife and big game. The smaller the clearcut the greater the length of edge for a given total acreage of clearcuts. However the majority of New Brunswick's clearcuts exceed the desired limits.

Clearcutting provides increased browsing for deer and moose which would be unable to reach the foliage and twigs of mature stands. On the other hand, the decrease of game population has been blamed on extensive clearcutting for pulp wood which, it is claimed, eliminates winter habitat. The alarming increase in the mortality rate of white-tailed deer in this province was cited as significant indication of the effect of clearcutting on wildlife. In a paper entitled, *Relationships Between Logging and Big Game in Eastern Canada*, published in October, 1970, E.S. Telfer of the Canadian Wildlife Service suggested that cutting practices should entail consideration of the effects on wildlife populations. A cutting system based on clearcut strips or patches would provide a maximum arrangement of food-producing strips next to strips providing dense cover. The ultimate counter argument employed by forestry officials is that large proportions of edge mean relatively large portions of the clearcut area in which regeneration is destroyed by heavy feeding or inhabited by competition with the residual stand. It is obvious that the appropriate size of individual clearcuts depends on the relative importance assigned to the various objects of forest management. Game production has not been a major concern of the forest industry and clearcutting has therefore been extensive.



The clearcut area should be small in comparison with the size of the forest; the cuts should be staggered so that the stands forming the next crop will differ in age from the ones adjacent to them.

## CLEARCUTTING

### CON ARGUMENTS

- 1) The aesthetic element. Clearcutting constitutes an enormous blemish on the complexion of Mother Nature. Any resident can easily substantiate this argument by visiting various locales in the province which are harvested by the major pulp companies. Clearcutting means the stripping of all the trees from a stand and the resultant disfigurement has been compared to a "nuclear holocaust's aftermath" and "tundra landscapes".
- 2) On steep slopes, excessive erosion may cause serious damage to the site; there is little chance for regeneration in these areas - Skiff Lake and Eel Lake are prominent examples. Rain falling on exposed earth can be taken in only as fast as the absorbant qualities of the unprotected earth permit. What is not soaked up will flow rapidly away, causing erosion, filling ditches, moving to the sea, and holding in suspension, in the form of silt, millions of particles of fertile soil. The sod and litter of a forest floor absorb enormous quantities of water and the roots of trees form effective dams. The water seeps into the earth, nourishing the trees and thus the forests maintain a more even level in the water table. In the spring the shadows of forests conserve snow and so reduce the floods that carry off valuable top soil.
- 3) Clearcutting increases the pollution of streams and disturbs the fish habitats. If the area is slash burned, the ashes also contribute to the debris on the forest floor.
- 4) The recreational and tourist attraction of the land is severely diminished. Hunting, fishing, camping and hiking are not enjoyable. In a pamphlet issued by the Canadian Forestry Association of New Brunswick, mention is made of this fact:  
*We are going through a transition during which the logger must learn to tidy his operations and avoid destroying natural beauty spots in deference to public opinion.*
- 5) The regenerative stand, if even aged and of a single species, may be more susceptible to insects and disease. Clearcutting may be directly linked to the pollution wrought by the spraying of pesticides.

### REGENERATION OF THE FORESTS

Clearcutting has its positive as well as negative aspects. Its decided advantage is that it is the only general means for raising genetically improved tree planting stock. In New Brunswick clearcutting seems to be a more practical environmental as well as economic method of harvesting than in either Nova Scotia or in Newfoundland. In 1958 the Provincial Inventory showed a softwood component of 71% which indicated that regeneration has been considerable. However, A.B. Vincent, in a report issued in 1956, concluded from his assessment in northwestern New Brunswick

### PRO ARGUMENTS

- 1) Silviculturally, patch clearcutting is the best way to regenerate some species of old growth timber.
- 2) The amount of slash, and logging debris left on the ground after a partial cut in old, over-mature stands creates an intolerable fire hazard. Clearcutting may be necessary to allow the clean-up of this hazard. Debris in quantity is rare in this province.
- 3) Serious insect outbreaks sometimes require clearcutting as a control measure or for the salvage of healthy timber. This measure is a rare occurrence here too.
- 4) Clearcutting is compatible with sustained-yield management. By limiting the size and distribution of the patch cut, the timber harvest can be balanced with growth. Most New Brunswick cuts are true unlimited clearcuts.
- 5) Clearcut areas are best suited to regeneration by planting. Planting stock of genetically improved strains can be used to produce a superior forest.
- 6) The removal of the forest cover increases streamflow and thus increases water yield. In some cases the water resource may be more valuable than the timber.
- 7) Clearcutting is the fastest, easiest and most economical method of harvesting.

although "that regeneration was usually adequate to form fairly good new stands, the new stands may not be as uniform as the previous ones, being too dense in some places and too open in others". E.L. Hughes, an official of the Federal Forestry Lab located in Fredericton concluded in a study made in 1970 that:  
*The Maritime data on reproduction indicates that tolerable good stands develop following many logging operations but the new stands may not be sufficiently productive to meet future demands nor sufficiently uniform to keep harvesting costs at reasonable levels: large scale investment in silviculture is needed now. (Regeneration After Logging in the Maritime Provinces, October 16, 1970)*  
The New Brunswick government is attempting to deal with the future needs of our forest. During 1970, approximately



2,000,000 tree seedlings were planted on Crown lands. Co-operative planting projects were carried out with Acadia Pulp and Paper Company Ltd., Fraser Cos. Ltd., N.B. International Paper Co., and Consolidated Bathurst Ltd. In addition approximately 175,000 tubed seedlings were planted. A programme has also been initiated to produce the best possible tree seedlings for reforestation. Hopefully, in the future the provinces will be capable of regulating the sizes and the types of cuts and the reforestation programmes of the few major companies which exploit the major portions of the province's forests.

## THE NEW BRUNSWICK HARVESTERS

In the list of licenses of Crown forests with 50 year pulp and paper licenses it is interesting to note that two companies - Fraser Ltd. and Bathurst Paper Ltd. - control 3,187½ square miles. Although the grants are for Crown lands these independent commercial companies do exercise unqualified authority over the management of their wide holdings. J.D. Irving Ltd., with 587 square miles of New Brunswick forest, has been referred to as the only "bright spot in Maritime forestry practice" because of their wise reforestation programme. Irving obviously realized the profits to be reaped from a sustained yield of a renewable resource. Fortunately, the plans for future profit largely coincide with the needs of the conservation of our forestry heritage. However, as a silviculturalist ironically remarked, "Perhaps the company wouldn't need such an extensive re-planting programme if they modified their clearcuts and left some of the regeneration up to nature". But Mother Nature would rely on natural succession and black spruce may be superseded by balsam fir. As the Canadian Forestry Association of New Brunswick, Inc., warned in their little pamphlet on clearcutting - "the public must learn the woods have to be managed and used for the economic as well as the aesthetic benefit of man".

An evaluation of clearcutting in New Brunswick is difficult. From all reports the average clearcut area is rapidly "greened up" with a luxuriant vegetation of annual plants, shrubs and tree seedlings and sprouts. In fact, natural regeneration poses a tremendous dilemma in the Canadian Armed Forces Base in Gagetown. The area was clearcut a number of years ago for drill ranges and other military purposes, only to regenerate with a lush advance growth within a few years. To curtail this vegetation the Army in conjunction with the Federal Forestry officials embarked on a campaign to spray the area with herbicides. They were forced to continue this operation for a number of years using the lethal 2-4-D which was largely ineffective. In southern New Brunswick a forest of spruce, fir and several hardwood species grows in varying mixtures. Clearcutting in this area of the province has been termed a "nonintensive forest practice" - it is effective, economical and a forest cover is continuously maintained because of the tremendous regenerative powers of nature.

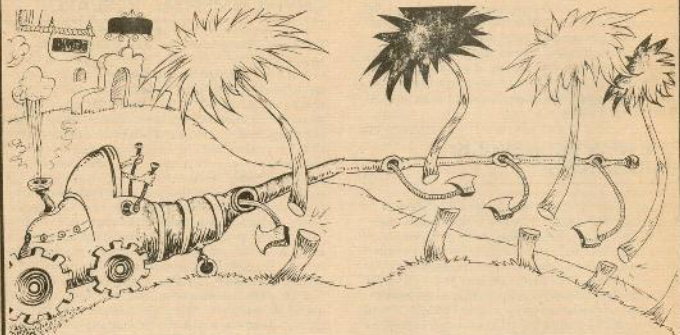
## ENVIRONMENTAL RESEARCH

In the past clearcuts have been made primarily for timber harvest. This operation may now be considered in a wider context with more consideration for the maintenance of other forest values. Failures in environmental management have resulted from the assumption that it is possible to manage one part of Nature without evaluating the far reaching consequences on the entire ecosystem. Plants and animals and their natural processes are intimately linked to surrounding land and water ecosystems and to the biosphere in general. Clearcutting has a certain impact on soil, water, timber, wildlife and fish. Sound management of our forests, beneficial to the entire society, demands that forestry practices be initiated only after an objective and careful analysis of all the possible ramifications for the environment. At present an experimental station has been set up in the Nashwaak-Basin area under the supervision of two U.N.B. forestry professors, R.B.B. Dickson and H.H. Krause to determine the effect of clearcutting on soil surface conditions, soil biology and nutrient chemistry, water quality and nutrient movement, ground and water temperatures, aquatic and wildlife populations, and water yield and regime. In their research proposal for this project, the professors stress the need for an evaluation of the consequences of the high degree of mechanization in harvesting developments which will probably develop to ensure that products of the Canadian forest industries are able to compete on the world market. Krause and Dickson maintain that:

*it must be the responsibility of land use planners to constantly weigh economic gains against the possible negative effects, and, to prevent irreparable damage it is essential that environmental research remains at all times ahead of all phases of industry.*

The quality of environment must hold priority over production goals and forest management must be focused on the maintenance of quality control. At present the situation is unclear because of the conspicuous absence of accurate statistics on all aspects of the problem. Hopefully joint experiments involving commercial and governmental interests such as the Nashwaak experiment should alleviate at least part of this need. The New Brunswick government should now embark on a programme to show the public current forest management practice with the hope that an informed public may eventually be involved in the actual development of management goals.

# THE LORAX



Then,  
Oo! Baby! Oo!  
How my business did grow!  
Now, chopping me down  
in a min,  
was a shocker.

So I quickly an' used my Super-Axe Thicker  
which whacked off four Truffula Trees in one stroke!  
We were making Truffles,  
how many is that, a whole lot?  
And that Lorax?  
He didn't show up no more.

If you haven't youngsters, you haven't suffered through a summer's evening of Dr. Seuss and 'How the Grinch Stole Christmas', or a winter's evening of 'And to Think That I Saw It on Mulberry Street!' The rhymes will twist the end off your tongue and the sketches would be downright revolting if only the figures didn't smile back sweetly at you from the illustrations.

Unfortunately, if you haven't youngsters, you may have missed Dr. Seuss's latest story book 'The Lorax'. If you have youngsters, go out to your local bookstore, get ripped off for the four dollars you'll be charged. And settle in for long evenings of reading the story to your youngsters, winter and summer. Over and over again. For Dr. Seuss has done it again.

'The Lorax' chronicles the exploitation of the Truffula Trees by the Once-lers. The Once-lers use the trees to manufacture 'thneeds', an obviously useless product, which is in great demand. The manufacture of thneeds requires continually expanding work space, the trees disappear, the manufacture of thneeds is curtailed. The Once-ler who started it all is left with his decaying factory. And a totally ruined environment.

The Lorax came from the first Truffula Tree to be cut by the Once-ler. He acted as spokesman for the trees, the birds, the animals and the fish all displaced by the Once-ler's exploitation and all with no voice to protest.

This synopsis hopefully explains the intention of the book without giving away too much of the story. But it

could not hope to illustrate the vitality in the verse or the depth in the telling full page coloured illustrations.

You've heard the Once-lers' story before:

'Look Lorax', I said 'There's no cause for alarm.  
I chopped just one tree. I am doing no harm.  
I'm being quite useful.'

Naturally as things look better for the factory:

'Well, I have my rights, Sir, and I'm telling you  
I intend to go on doing just what I do!

And for your information, you Lorax, I'm figgering  
on biggering  
and biggering  
and biggering  
and BIGGERING.'

The totally ruined environment follows in short order.

Dr. Seuss predicts a bright future. The last Once-ler offers a young boy the last Truffula Tree seed. The last seed, which with tender loving care and good air and water could develop an environment equal to the original.

'Unless someone like you  
Cares a whole awful lot  
Nothing is going to get better  
It's not.'

The Lorax  
Dr. Seuss  
Random House, New York

# YOU ARE A WORM



## POISON SPRAY ATTACK

**T**HE GOVERNMENT TREATS YOU LIKE ONE, every summer in New Brunswick, by including you in its poison-spray attack upon the spruce bud-worm. Last year, while working outside our cabin in the New Brunswick forest, I was alarmed to see a World War II fighter plane coming in low over my dwelling, trailing a pale mist from its underbelly. A moment later, as the mist floated down around me, my lungs were inflamed, my eyes were burning, my nose running with mucus. My wife, who remained in the cabin, suffered the same effects, for the poisonous mist came down our chimney, filling the cabin. There was no escape.

My condition worsened as the poison made its way through my system. Some four hours later, I was unable to drive my car, for my reflexes had been slowed to a stupor-like state. I could neither focus my eyes correctly nor steady my trembling hands. My strength was gone and so too the precision of my musculature. By mid-day we were both experiencing severe pains in the stomach, lasting sever-

William Kotzwinkle is a concerned citizen and writer of children's books who lives in Zionville, New Brunswick.

al hours. By evening, we were dizzy with headaches, and the bitter taste of the poison was still in our mouths. While trying to sleep, we suffered profound restlessness and anxiety, the psychological counterpart of our bodily sickness.

On the following day, just at sunrise, the plane came again, and we could only stand helpless under its attack, which produced once again the same bodily symptoms of headache, dizziness, lung congestion, nausea, and stomach-ache.

City-dwellers feel that this does not concern them, as the fighter planes do not pass directly over their homes. Nevertheless, they are also reached by the spray.

On the third day, the airplanes were out of sight of our cabin, spraying further away in the province. But the sound of their engines could still be heard. It was morning and I was working in our small vegetable garden. A gentle breeze was carrying the poison from far away into my system again, as I suddenly realized, when once more my nose became blocked with mucus and the stomach pains returned. The nausea was more severe than on any previous day, no doubt because of the accumulation of poison now in my body from two days of direct spraying, and an indirect dose on the third day. The smell of the poison was strong once again and the fine mist could be seen, *carried for miles by the wind*. And that is how you are getting your share of the dose, fellow worms, wherever you happen to live.

May 21, 1971

Dear Mr. Krotzwinke:

On behalf of the Prime Minister and in his absence, I wish to acknowledge receipt of your recent letter, co-signed by Mr. Somerville, in which you express concern over the use of herbicides and their effect on birds and fish.

I am taking the liberty of forwarding a copy of your letter to the Office of the Minister of Agriculture, for consideration and further reply.

Yours sincerely,  
Henry Alan Lawless  
Correspondence Secretary.

## CONVINCING THE DEPARTMENT

**I** FELT IT NECESSARY TO WRITE at once to the government about the symptoms I had observed in myself and my wife. To my numerous letters came this reply from the Department of the Environment:

*"The symptoms you describe are quite outside the experience of medical specialists who have been associated with the planning of the control program in New Brunswick. In 1971, as in previous years, there was no observed or reported and authenticated case of illness among people attributable to the use of fenitrothion (the poison spray) against the spruce budworm in New Brunswick."*

Obviously, the Department of Environment did not consider the symptoms I reported, of two persons, myself and my wife, as "observed, reported, and authenticated." One must then ask the question - if the Department of Environment does not accept the report I made, produced with as much detail as I was able to include, what report does it accept? And will any report be acceptable? Does a poisoned inhabitant of New Brunswick have to stagger into the department of Environment and collapse in their offices in the last stages of fenitrothion poisoning to be classified as "authentically" poisoned?

The Department of Environment concludes: *"The foregoing comments will reassure you that the Department of Environment in concert with other federal and provincial departments has indeed been very concerned with the maintenance of environmental quality and the safety of people in the conduct of forest protection operations carried out against the spruce budworm."*

No, gentlemen, I am not reassured.

And I invite you to join me in the woods and fields this year, on any spraying day, and suggest you breathe deeply, if you dare, as the fighter plane passes over your head. And I extend this invitation to the Department of Agriculture, which wrote me that, *"we feel it is necessary to be continuously on the lookout for any undesirable side effects that might occur in the use of these chemicals."*

Perhaps the gentlemen from the Department of Environment and Agriculture will not consider it unsporting of me if I wrap my head in a wet towel on poison-spray-day, as I am told by a University of New Brunswick scientist that it

will give some protections against the spray.

Here are some facts about the poison that is being used against us: Fenitrothion is a cholinesterase inhibitor, which acts as a drug on the automatic nervous system. According to Rachel Carson, in her book, *Silent Spring*, "repeated exposure may lower the cholinesterase level until an individual reaches the brink of acute poisoning." Fenitrothion is one of a group of organic phosphate chemicals which emerged from nerve-gas research made during World War II. That it should be laid upon us from a World War II fighter plane is a frightening piece of irony.

In Saskatchewan last year, during the aerial spraying for the army worm infestation, the local farmers marked the areas to be sprayed by delegating their children to stand in the corners of the fields. The spraying succeeded in diminishing the insect problem.

## FENITROTHION & THE BODY

**D**R. CREUTO OF THE Washington, D.C. office of the United States Environmental Protection Agency has stated that a serious problem with fenitrothion is that there is a lot, and he emphasized the word "lot", of variation in its effect on test animals. It is considered lethal at 600 milligrams of 77% fenitrothion per kilogram of body weight. He stated that the lungs are affected, and that it is not unusual to have to administer artificial respiration to have the subject recover. The muscles don't function well and the lungs are clogged with mucus. The accepted treatment is with atropine, an antidote given at a dose of 2-4 milligrams intravenously until the heart rate is high, saliva secretion is normal, and the cheeks are pink and warm.

What this means is that the stuff is deadly and that the smaller you are, the worse its effect is in your body. In other words, women, children, old people, as well as small animals and birds will be the ones most seriously harmed by contact with this poison. The dose administered to New Brunswickers is 3 ounces in one-fifth of a gallon of formula per acre. "Such dosages have proven to be safe for fish, birds, and mammals," writes the Department of the Environment.

Throughout the winter, my wife and I had been feeding a squirrel at our cabin. On the day of the spraying, he happened to be sitting on the roof. As the poison spray fell on him, he began shrieking at the fighter plane, as only an angry squirrel can shriek, obviously in great discomfort. He did not come back to eat for several days, but I am happy to report he survived the attack, though his sickness must have been much more severe than ours, because of his small weight.

A pair of Canadian jays, or whiskey-jacks as they are called in the woods, whom we had also fed through the winter, suffered seriously from the spraying. As the mist fell on them, they desperately tried to escape by knocking

their heads against our window. We never saw them again.

However, the Department of Environment assures us that "relatively normal population levels have remained in the spray areas. These are assessments made by a competent ornithologist who has been working in New Brunswick."

May 28, 1971

Dear Mr. Kotzwinkle:

Your recent letter to The Right Honourable Pierre E. Trudeau, concerning the spruce budworm spraying program in New Brunswick, has been referred to me for answer.

We, in the federal government, share your concern for the environment. However, we do not agree with you that the spraying program in New Brunswick has resulted in an increase in the spruce budworm. On the contrary, we are convinced that, if we had not sprayed, thousands of acres of forest would have been destroyed. This would have resulted in considerable financial loss and hardship for your province.

In the past, DDT was the chemical used in the forest protection program. This chemical performed a most efficient job of controlling the spruce budworm. Unfortunately, there were certain undesirable side effects which indicated that it would be wise to find an alternative chemical.

Extensive tests have been carried out by the federal government forestry service in collaboration with the Wildlife and Fisheries Services. They have all given their approval to a chemical called Fenitrothion. This chemical breaks down quickly in the atmosphere and is very effective against spruce budworm. It will be used in this year's forest protection program in New Brunswick.

We do not believe the answer to the pesticide problem is a wholesale banning of these useful products. Rather, we feel that it is necessary to be continuously on the lookout for any undesirable side effects that might occur in the use of these chemicals. If any such effects become evident, then a concentrated effort is made to find a suitable replacement product.

Yours very truly,  
H. A. (Bud) Olson

## THE RESISTANCE OF INSECTS & MAN

**T**HE BIRDS ARE A NATURAL ENEMY of the spruce budworm. The old poison-spray program in the province, which used DDT, killed them off in such great numbers, that "dead birds could be picked up by the bushel-basket-full," as one New Brunswicker put it to me recently. The program was stopped, but only *after* it had produced its horrible result.

Now we are in another poisoning program, whose short-term effects are apparently "quite outside the experience of medical specialists," in New Brunswick. As for the long-term effects, they are completely unknown. All we have is a glowing promise from a chemical company, whose *business* is to sell poison. We have come to distrust such promises, because the chemical industry has a long history of playing down the evils of the spray, and glorifying its results, always failing to mention that the insect world is constantly developing *immunity* to these sprays. What may seem a successful program one year, turns out to be a total failure by the time the next year rolls around, when an insect population *doubles* itself due to its increased immunity.

But what of the human population? Unfortunately we do not have such powers of resistance. The effects of the poison spray are cumulative over long periods of time, according to all latest evidence from public health organizations, and the danger to the individual may depend on the number of exposures he has undergone in his lifetime, producing long-term effects which would indeed be outside the experience of medical specialists, for the poisonous material might prove fatal only many years after it has entered the body.

New Brunswickers are being subjected to what these officials call "chronic low-level poisoning." Every year, each of us gets a little dose, and those who live in rural areas, which is most of the province, get an even larger dose.

Horribly enough, however, it is repeated small doses which are considered more likely to produce cancer. And here, perhaps, is the most dangerous note of all in this ill-conceived concert conducted by federal and provincial departments against the spruce budworm.

Professor Otto Warburg of the Max Planck Institute of Cell Physiology believes that a chemical carcinogen (a cancer-producing chemical) acts by destroying the respiration of normal cells, thus depriving them of energy. Where a large dose kills a cell it is these surviving damaged cells which become cancerous. And as Rachel Carson has pointed out, "most pesticides meet the criterion of the perfect carcinogen too well for comfort." (Laboratory tests made on animals are too numerous to list here, but their results emphatically substantiate the above.)

## FENITROTHION & CANCER

**T**HE THREAT OF FENITROTHION is increased, in a way that no planning program can evaluate, by this further fact: organic phosphate poisons may interact with other drugs which we take as part of daily life, or with synthetic materials and food additives. Thus, the number of people who develop cancer in this way cannot be determined. They might suffer no noticeable side effects at the time of the spraying, but the cancerous seeds may have been sowed, to produce their hideous flower years afterwards. Dr. W.C. Heuper of the National Cancer Institute, an authority on environmental cancer, has pointed out that congenital cancers and cancers in infants may be related to cancer-producing agents which the mother has been exposed to during pregnancy and which enter the placenta to act upon rapidly-developing tissues. And for this

June 9, 1971

Dear Mr. Kotzwinkle:

On behalf of the Prime Minister, I wish to acknowledge receipt of your recent letter concerning the use of chemical sprays in your area.

I have taken the liberty of forwarding a copy of your letter to the Department of Fisheries and Forestry. The officers of this department will have the necessary information more readily available and will be able to be of more assistance to you.

Yours sincerely,  
Henry Alan Lawless  
Correspondence Secretary

same reason, the rapidly-developing tissues of a child make him a suitable target for the development of malignant cells.

For these reasons, it would be wise to keep your children's faces protected by wet towels during the spraying program, especially if you live in a rural area. But far wiser would be an end to such a program, once and for all of us. The planners of this program will argue vehemently against such an idea, but as Dr. Francis Ray of the University of Florida has said, "We may be initiating cancer in our children of today by chemicals . . . we will not know, perhaps for a generation or two, what the effects will be."

Dare we run such a risk? Do you want your children to act as test animals for such a program? For a program which has not even been successful?

Here are some facts about the *immediate* results of being sprayed by organic-phosphate poisons:

Reuters New Service reports that five Stockholm workers using chemical defoliants died suddenly after becoming ill and a sixth is in critical condition with cancer. (Feb. 1972)

The Wall Street Journal article, *Death in the Fields*, reports that:

*In California, which uses 20% of the United States pesticide output, there were 216 "systematic poisonings", in 1968, the latest year for which figures were available. Between 1961 and 1968, there were 15 fatalities from organic phosphates.*

*One federal official estimates 200 pesticide deaths a year in the United States, mostly attributable to organic phosphates.*

*One study by the California Health Department indicated that as many as 150 out of every 1000 farm workers suffer symptoms of pesticide poisoning. These symptoms are nausea and headaches.*

*In North Carolina, a 16-year old boy collapsed in a tobacco field, suffered heart stoppage and died three days later. The medical report listed the cause of death as parathion poisoning.*

## "JAPANESE PARATHION"

**F**ENITROTHION, THE NEW BRUNSWICK POISON, is in the same family as parathion, and is, in fact, known in the chemical industry as the "Japanese parathion."

The fatality rate from parathion around the world is awesome: 100 deaths in India and 67 in Syria in 1958 and an average of 336 deaths per year in Japan.

Rachel Carson writes that the dose of parathion used on California farms alone could be "a lethal dose for 5 to 10 times the whole world's population." Which only goes to show how indiscriminate are the planners of such programs, who become fascinated by short-term results and ignore the terrible gift of a poisoned earth they are bequeathing to future generations.

The planners of the New Brunswick poison-program will argue that fenitrothion breaks down in the atmosphere after it has been sprayed. Aside from the fact that it is still deadly while it is descending, leaves sprayed with fenitrothion can spread the poison to anyone handling them weeks after the spraying. Rachel Carson writes that, "In Riverside, California, eleven out of thirty men picking oranges became violently ill and all but one had to be hospitalized for parathion poisoning (fenitrothion's close cousin). The grove had been sprayed with parathion some two and a half weeks earlier; the residues that reduced them to retching, half-blind semi-conscious misery were sixteen to nineteen days old."

Miss Carson continues: "Similar mishaps have occurred in groves sprayed a month earlier, and residues have been found in the peel of oranges six months after treatment with standard dosages."

Those who are familiar with the New Brunswick forests and their customary smells, will have no difficulty in smelling, for weeks afterward, the wretched fumes of fenitrothion, for it covers everything. Food, for at least a week, tastes of the poison, and the tongue seems always coated with it.

The planners of the New Brunswick poison-program will argue that the pilots engaged in the spraying of fenitrothion show no sign of these symptoms. But as Rachel Carson points out in her chapter, *The Human Price*, "By their constant contact with the chemicals these men keep themselves desensitized — as an allergist keeps his patients desensitized by repeated small injections of the allergen. Despite the absence of sudden and dramatic symptoms, one who handles such materials is unquestionably storing up toxic materials in his body." And the drastic symptoms may appear only afterwards, as in the now-famous instance of the bone cancers produced in women who, in the 1920's, were hired to paint luminous figures on watch dials. By touching their paint brushes to their tongues to make a fine point on the brush, these women swallowed minute amounts of radium. Only after a lapse of 15 years or more, did their bone cancer assert itself. As Miss Carson points out, "A period of 15 to 30 years or even more has been demonstrated for some cancers caused by occupational exposure to chemical carcinogens."

## POISON & INSECT CONTROL

**M**ISS CARSON CONCLUDES: "In view of the severe damage they inflict upon the nervous system, it was perhaps inevitable that these insecticides would eventually be linked with mental disease."

Sixteen cases of mental illness were treated at Prince Henry's Hospital in Melbourne. All sixteen had a history of extended exposure to organic phosphate poisons — three were scientists checking the effect of the spray; eight worked in greenhouses; five worked on farms. Symptoms included loss of memory and schizophrenia and depressive states. All had been normal before the chemicals took their toll.

One is tempted to say that the New Brunswick poison-program suffers from such mental illness. So when the planners of the program make any kind of statement, take it with a grain of salt and get ready with the wet towels. Your health and that of your family is at stake, no matter what kind of soft or hard-sell this ill-conceived and dangerous program is given.

The Department of Agriculture writes that without the poison-program, "considerable financial loss and hardship would result for your province."

The Department of the Environment writes, "The spruce-balsam fir forests of New Brunswick have had a succession of major infestations, dating back to 1770. The outcome has typically been extensive destruction over very large areas, frequently with widespread fire as an aftermath."

No one would wish fire-loss or hardship on his fellow-man. But I have lived and worked with lumberjacks, and listened to their estimates of these sprays. Such men are not experts, in one sense of the word, but they have a lifetime of practical experience in the forest and a close knowledge of the spruce budworm. They talk of the warblers and woodpeckers "cleaning the worms off a tree". And they will tell that where the forest was once filled with birds, "so that you could hardly hear yourself for their singing," now the spring is silent, for the birds have been killed off by the poison. And the lumberjacks have told me, "the poisons are a money-grab."

What, then, is the answer to the problem?

Even those connected with the New Brunswick poison-program admit that it has not been anything like a victory. In fact, since the program began, the infestation of the spruce budworm has gotten worse. The reaction of those in the poison-program is, "without the spray, the infestation would be still greater."

But is this true? It is now known that spraying can be a principle factor in increasing the insect population, such as in Ontario when the blackflies became 17 times more abundant after the spraying. In England there was a devastating outbreak of the cabbage aphid following spraying with an organic phosphate. And there are many other such documented cases, too numerous to mention here, of such negative results, in which New Brunswick is included.

June 23, 1971

Dear Mr. Kozzwinkle:

On behalf of the Honourable H. A. Olson, I wish to acknowledge your letter of June 20th regarding the effects you suffered after being sprayed by Fenitrothion.

I shall be pleased to bring your comments regarding the use of this pesticide to the Minister's immediate attention.

Yours sincerely,  
H. R. Pudwell,  
Executive Assistant.

July 7, 1971

Dear Mr. Kozzwinkle:

I wish to assure you that members of this Department (now the Department of the Environment) are deeply concerned with the quality of the environment in New Brunswick.

The actual operations conducted by the Province (or its agent) have reflected the concern of federal departments that hazards to humans, and to wildlife and fish populations be minimal. The survival of several millions of acres of highly valuable timber has been effected through these operations.

The material used in New Brunswick in 1971 is fenitrothion, at either of two dosage rates. Such dosages have proven to be safe for fish, birds and mammals.

The symptoms that you describe are quite outside the experience of medical specialists who have been associated with the planning of the control program in New Brunswick, and with monitoring the health of pilots and other personnel involved in the actual operations. I am informed that again in 1971, as in previous years, there was no observed or reported and authenticated case of illness among people attributable to the use of fenitrothion against the spruce budworm in New Brunswick.

I trust that the foregoing comments will reassure you that the Department of the Environment in concert with other federal and provincial departments has indeed been very much concerned with the maintenance of environmental quality and the safety of people in the conduct of forest protection operations carried out against the spruce budworm over these past years.

Yours sincerely,  
M. L. Prebble  
Assistant Deputy Minister  
(Lands, Forests and Wildlife)

## ALTERNATIVE METHODS OF CONTROL

**P**LANT-EATING INSECTS (or their larvae, such as the budworm) are considered nature's scavengers, whose function is pruning excess foliage and fruit, in this way giving some return for what they consume. They increase to become pests when plant imbalances and ill-health occurs.

It is the poisonous spraying every year which causes this ill-health and imbalance, the poison-program has actually assisted the budworm in its population explosion, as the programs own statistics show — more infestation now than when the program began.

The most effective answer, then to these pests is to seek soil and plant health, which will finally result in a healthy

forest, able to effect its own controls against the budworm. Superintendent of Forestry in Ohio, Joseph A. Sweeney, found in his battle against Dutch elm disease that, "the only areas under any control were areas where we used some promptness in removing the diseased or brood trees. When we depended on spraying, the disease was out of control. We are abandoning spraying for the Dutch elm disease (as spraying destroys any natural enemies."

If the money that goes to the chemical companies was spent in introducing natural enemies of the budworm, such as is now being done in programs of "biological control" against insects throughout the United State and other parts of Canada, New Brunswick would be making an important step in the right direction.

The "male sterilization" technique developed by the United States Department of Agriculture's Entomology Research Branch succeeded in wiping out in seven weeks, the entire screw-worm population on the test island of Curaçao in the Caribbean. (The sterilized males are released into the infested area, and produce infertile eggs, thus crippling the entire insect population at its evolutionary root.) The program went on to completely eliminate the screw-worm in the Southeastern United States, in seven-months.

There are other such programs of male-annihilation which have proven successful, destroying 99% of the fruit and melon fly population in the Bonin Islands south of Japan.

Canada has had, since 1960, a program of bacterial insecticides, which promises to be effective against the budworms and gypsy moths. In contrast to chemicals, these bacterial insecticides produce fatal disease in the insect aimed at, but are harmless to all other life-forms. They are so specific they infest only a small group of insects. Dr. Edward Steinhouse, an outstanding scientist in insect pathology has stated that insect disease always remains confined to insects, never affecting plants or animals. In Vermont, results achieved with bacterial insecticides were as good as those gotten with DDT.

July 8, 1971

Dear Mr. Kotzwinkle:

I have studied your letter of June 20 and consulted with officials of my Department and of the Department of the Environment. I find that your evaluation of the benefits from efforts to control the spruce budworm and the risks to humans and wildlife are at variance with scientific evidence and the recorded observations of experts.

Penitrothion may be used only in forests following consultation with regional forestry officials. I have ascertained that both provincial and federal regional officials are alert to your evaluation of the program.

Yours truly,  
H. A. (Bud) Olson

## FINANCING & FOREST MANAGEMENT

UNFORTUNATELY, THE RESEARCH FUNDS are rarely available for such biological control programs, as the chemical companies pour all their money into university grants centering on the development of more pesticides.

Already in Canada, forest "hygiene" is practised through the introduction of birds, ants, forest spiders, and soil bacteria to inoculate the forests. On a large scale, such a program would bring a significant return, without damage to the environment. Dr. Paul DeBach has estimated that such a program as was introduced in California for an investment of \$4,000,000 produced a return of \$1,000,000. And that is the kind of return New Brunswickers should be seeking, rather than paying the government to poison them every year, in a program that doesn't work.

Newfoundland, in an attempt to control the sawfly, brought in the masked shrew, a natural predator of the sawfly, and has had marked success.

Dr. A.D. Pickett of Nova Scotia worked for 35 years to produce an insect control program in the apple-growing orchards of Annapolis Valley, using a natural insecticide, made from the roots of a tropical plant. It controls the pest without harming its natural predators. The Nova Scotia program has produced as high-grade fruit as other orchards using intensive highly-toxic insecticides. And these results have been gotten at considerably less cost.

Such, then, are some of the lines on which a sane and truly thoughtful program might proceed in New Brunswick - introduction of natural predators, biological controls such as male sterilization, bacterial and low-toxic insecticides, along with efficient protection of the forest community through soil maintenance and removal of brood trees.

Such a program of forest health should not result in unemployment and financial hardship, but would, because of its pain-staking thoroughness, provide jobs for more men, right in the forest, strengthening its roots - rather than the extremely limited manpower used in the present program, whereby a handful of fliers visit the province for a few weeks every year.

That such natural balance can be regained by an environment is proven by the recent pollution controls now in effect in England. These controls are placed on industry, to prevent the destruction of the atmosphere and rivers. Since the beginning of this program, hundreds of species of birds, long absent from London, have returned. And once again, there is fishing in the Thames.

New Brunswick must seek the positive way out - which does not result in our breathing death every June.





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# POLICE SURVEILLANCE

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"Surveillance, you say? surveillance...hmm, what a lovely word.... it must come from the French, don't you think?"

—an unknown secretary in the Registrar's office, Dalhousie University.

*Approaching the subject of police surveillance the layman feels like a pimply young upstart from Cape Breton who, having left home to make his fortune in Toronto, finds himself broke and without bed, hunting through the telephone directory for his brother-in-law named Brown who lives somewhere on Bloor Street. Given the length of Bloor and the pervasiveness of Browns in Toronto, our stout-hearted lad might easily become discouraged from further investigative efforts, and so with police surveillance.*

*While most of us have resigned ourselves to the fact that the police are free to watch whoever they consider worthy of such attention, few of us have considered seriously the proposition that we might be those worthies in question. But then, sufferers from the Ostrich Syndrome might take heart in the counsel of an information representative at Maritime Telephone and Telegraph: "If you're not doing anything wrong, then you've got nothing to hide, so why worry?" Long before Big Brotherism paranoias became fashionable in the sixties, Parliament had provided police in this country with legal freedoms concerning investigation and detection procedures which helped to make Canada one of the best-policed nations in the world. This reputation still stands.*

*In the following article we will examine the fine art of police surveillance as practiced in Halifax. However, as far as methods and policies are concerned, these remarks apply to anywhere in Canada.*

Surveillance: n. supervision, close observation, investigation, (esp. under \_\_\_\_\_, not trusted to work or go about unwatched). The systematic listening to, or watching of another person without his knowledge and consent, with intent to invade his privacy. (F, I. SURveiller)

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## WHO IS WATCHED?

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In defence of surveillance techniques, policemen have traditionally maintained that such measures are necessary for the detection and pursuit of the modern criminal. Their argument runs like this: "We demand the right and authority to apprehend criminals by the same means that the criminal uses to defy authority and break the laws of the land." This makes reasonable sense on the surface, but underneath we find the assumption that every criminal has the savvy of James Bond and the technological resources of the Mafia. As we dig deeper, we unearth another assumption: The police exist solely to catch criminals. In practice, the police use sophisticated surveillance methods — which might be appropriate in international espionage cases where the national security is being threatened by a foreign government — for spying upon "suspicious people" who have committed no offenses whatsoever.

In Halifax, you can become a suspicious person by a variety of routes. One way is to associate yourself with persons and situations which lead to crimes. Befriend a local drug dealer and presto! — you're a suspicious person. There are variations on this route; you can associate with persons who, while for the most part do not break the law, make no secret of their distaste for it — start riding with some of the more established motorcycle clubs and your chances of making it to the suspicious files are good. You can become a suspicious person by virtue of what you talk about or write about. If you say or write things which might disturb the security of the Government of Canada, you qualify: Maoists, Young Socialists and others in the student left at Dalhousie are under surveillance. But by far the easiest way to become a suspicious person is simply to live in Halifax — if you are black.

Surveillance falls on others besides suspicious persons. If you apply for a job which requires a security clearance, you are placed under surveillance. This applies to all new recruits in the military.



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**BILL TEMPLEMAN**

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## THE WATCHERS

Surveillance duties are shared by the Halifax City Police and the RCMP; the two forces work independently according to the nature of the case. There are exceptions: city detectives and RCMP narcotics squad members have often worked together on the surveillance of dope dealers. There is a free exchange of data between forces. In general the city police carry out surveillance in 3 areas (1) upon persons suspected of having committed a crime such as car theft, break and entry, and robbery; (2) upon persons who have a crime-rate or other characteristics which might suggest that they are likely to commit crimes, i.e. motorcycle gangs; (3) upon the black community.

A major part of the RCMP's surveillance responsibilities fall in the area of national security; their involvement with security brings them in touch with a far greater range of surveillance situations than the city police.

"The Director, Security and Intelligence is responsible for the direction and correlation of activities in respect to counter-espionage and subversive activities against the State, for security investigations regarding personnel employed by the Government and others as required, for co-operation with Commonwealth countries and foreign nations in matters concerning intelligence organizations, both service and civilian, and for the direction of security and intelligence investigations generally."

—The Commissioner's (RCMP) Standing Orders, Section 1366 to the Director of the Security and Intelligence Division.

The RCMP is therefore called upon to work in collaboration with other agencies such as the National Harbours Board Police, the Department of Citizenship and Immigration, the Customs Office, the Post Office and the military. In view of the above standing order, the RCMP appears to be the government's all-purpose surveillance experts.

## THE FINE ART OF POLICE SURVEILLANCE

We will look at surveillance under 3 general headings: (1) visual surveillance — being watched or traced by a police officer, by photo or optical devices and by electronic means; (2) bugging — monitoring conversations or communications with electronic devices; and (3) data surveillance — the compilation and use of personal data on individuals. Throughout this section the reader might justifiably feel that he is being led down a garden path into a remarkable bower of science fiction fantasies. Admittedly we will be

discussing several surveillance methods which are seldom, if ever, used in Halifax. However, all the methods discussed are available to the RCMP and can be used anywhere in Canada. Wherever possible we will corroborate the surveillance methods under discussion with examples from police work in Halifax. This is by no means a complete survey of either the surveillance methods used in Halifax or the resources for surveillance available to the RCMP across Canada.

## VISUAL SURVEILLANCE

Perhaps the commonest form of surveillance in Halifax in terms of police man-hours is the old familiar Dragnet stake-out routine. Drug dealers and radicals have long been used to the unmarked pastel Chevy — with the tiny whip antennae on the trunk and the two dour chain-smoking gentlemen in the front seat — that parks down the street for hours at a time, with the motor running. In situations where the police are trying to seize a new drug shipment that has just arrived in town two or three cars might be used. The cars park within two blocks of the dealer's house — usually around a corner so as not to be in a direct line of vision from the house — then dispense several officers from each car, who in turn watch the house on foot. Dealers report that this tactic is quickly noticed by the house occupants; everyone soon realizes that a quiet residential street such as theirs should not be subject to heavy pedestrian traffic at one in the morning, particularly when all the pedestrians are males of at least 5 foot 10 and 180 pounds plus and are wearing sports coats and bowling league jackets. When Bob Cruse of the Communist Party of Canada visited Halifax last November, he was under constant surveillance from unmarked cars that worked in shifts. When Cruse spoke at Dalhousie, there was a generous sprinkling of bowling league jackets in his audience.

The under-cover agent is another common form of surveillance, particularly with drug dealers. Fredericton was stripped of its dealers late last June thanks to the work of a long-haired agent who hung around town for several months, buying dope from anyone who would deal with him. Such agents can either be RCMP officers on special assignment or free-lance informers hired on a contract basis.

Halifax's black community presents a nasty surveillance problem to the police — 10,000 people cannot, after all, be individually watched. To compensate, the city police use a high density squad-car patrolling system. On Walnut Street in the city's upper-middle-class — and white — South End, a patrol car might pass a given address three times in 24 hours. On Creighton Street in the Black community a given address might be passed up to 12 times in 24 hours. The city police operate several steel blue paddy wagons marked Police Patrol; many south-end children simply never see a patrol wagon until they join the pubescent hordes that seek their Friday-night diversion by wandering back and forth along Spring Garden Row. Small wonder: the patrol wagons are usually in the North End, criss-crossing the black community. Instead, the South End is graced by the mounted patrol — friendly constables on fine horses to please the burgers and the tourists. Black kids on North Street seldom get to see the horsies.

Photo surveillance is used frequently by the RCMP to identify and keep record of political activists. Every leftist demonstration and anti-war procession is carefully photographed and the prints identified and filed. Visitors to Sino-Soviet Bloc ships on the waterfront are photographed or filmed if their visits become frequent. If these ships are suspected of carrying sensitive cargoes or attempting to contact subversives while in port, they are subject to constant telephoto and sporadic telescopic surveillance. Quantity is often the sole criterion of the effectiveness of a surveillance job; the Halifax RCMP files must contain countless large glossy prints of dingy Polish fishing trawlers carrying extremely unresponsive – and frozen – cod.

In addition to the above methods, the RCMP has access to the following watching and listening devices. A small miniature radio transmitter the size of a quarter can be secreted on a person's clothing or car. This transmitter sends out a signal which has a range of several city blocks. If two or more police agents are assigned to this surveillance then a "cross-fix" can be used to pin-point the location of the suspect. Such a device was discovered by a Dalhousie professor in his car during Cruse's visit last fall. Automatic and radio-controlled cameras can be installed in a room or office. Such cameras, ranging in price from \$100. to \$300., are easily hidden behind ventilation and heating grills. One radio-controlled model now in use by police can take more than four hundred 35 millimeter frames without re-loading, from control distances of up to one mile. Cameras equipped with infra-red film can take clear pictures in dark rooms if an infra-red light source is secreted in the room. Other cameras have methods of amplifying very small visible light sources. One closed-circuit television camera can – without using infra-red energy – transmit clear pictures of an entire room from the illumination of a cigarette lighter. Closed-circuit TV is also used for theft surveillance in stores and banks and for riot control in prisons. We could go on with descriptions of radio pills – tiny transmitters ingested as vitamin pills that turn the swallower into a living electronic beacon, fluorescent dyes – a person with fluorescent dust on his clothing can be traced by an agent with ultra-violet light, and infra-red energy sniper scopes, but enough is enough.

## BUGGING

The tapping of phone lines used to be the leading method for monitoring a private conversation. Tapping became so widespread that even the crusty Royal Commission on Security – the same royal commission which recommended that Canada set up a Security Service similar in function to the CIA – had to recognize that the telephone must be treated with caution even by government officials.

*The situation with regard to the security of telephone conversations is much less satisfactory. From what we have heard, we do not believe that there is sufficient awareness, even in senior government positions where it is most important, that the telephone is a basically insecure instrument, and that therefore classified matters should not be discussed on the telephone.*

– the Royal Commission on Security, section 232, page

82.

To tap a line the police place an induction coil near the

wires leading from the telephone they wish to tap. The coil, being in the magnetic field carrying the voice signal, draws off a very small amount of that signal and carries it to a receiver that permits listening or recording of the entire conversation. In conversation with a security official at Maritime Telephone and Telegraph's head office in Halifax, *the Mysterious East* learned that the police do not need any co-operation from the phone company in order to tap a private line, and if the police asked for help, they would not get it. Moreover, with modern bugging techniques the police tap – even by induction coil – is hardly used anymore. Maritime Telephone and Telegraph receives an average of one call per month from Nova Scotia customers who are certain their phones are being tapped and demand a company investigation. The company always checks out the complaint; to date they have yet to find a bug. However, Bell Telephone, in its presentation to a recent parliamentary committee on wire-tapping, stated that over 100 bugs had been found attached to company equipment during a two-year period. Most of the devices were connected either to wires in the building's phone-terminal box or to wires within the handset of the phone.

Halifax's Progressive Bookstore – the only outlet for Marxist and Maoist literature in the city – was kept under constant phone surveillance. The store's staff would receive calls shortly before closing; the caller would try to engage the staff member in a banal conversation. These calls were apparently made by police officers for voice identification purposes; presumably there is an RCMP employee somewhere within the bowels of the Section Headquarters building on Hollis Street who can, upon hearing a few words, identify the sinister voices of Halifax's fifty Most Dangerous Radicals.

The new micro-miniature technology has provided the police with a surveillance arsenal which in many respects makes the induction coil phone tap the weakest member of the team. A black community leader in Halifax experienced the following scenario: One day a large, grim gentleman dressed in a phone repairman's outfit appeared at the door, saying that he had come "to fix the phone". He was told that there was nothing wrong with the phone, but was admitted anyway. After several minutes of tinkering with the handset of the phone, the gentleman left the house. A few weeks later a friend phoned the house, explaining that when she dialed the number, she could hear – without the bell ringing or handset being taken off the hook – everything that was going on in the room where the "fixed" phone was located. The device used in this case drew its power from the phone lines and might have been capable of being activated by receiving an incoming call. Such devices are usually activated by phoning the number and sending out a harmonica tone along the line before the phone is picked up or after it is hung up. This remote-control tone device transforms the bugged phone into a microphone until the investigator at the other end hangs up.

Private conversations can be effectively monitored by means of a hidden microphone and recording unit or radio transmitter. Micro-miniaturization of circuits has reduced microphones to match-head size and battery-driven tape recorders to the size of a cigarette package. But these devices must be installed in the room that is to be kept under surveillance. When entry into the room is impossible, a

contact microphone — which picks up vibrations created by speech within the room — can be attached to the outside wall or some part of the heating or ventilating system. If a room is not completely closed — as when a window is open — a directional microphone can pick up all conversation. Most fascinating of all is the Doppler radar microphone: speech vibrations have a particularly strong effect on glass windows. Speech produces "ultra-sound" vibrations on the outside surface of the glass which can be taken off by the radar beam and transformed back into sound.

## DATA SURVEILLANCE SOME POLICE PRACTICES

The police in Halifax — like police everywhere in Canada — have access to many sources of personal data on individuals. There are two interrelated processes involved in data surveillance: (1) the accumulation by police of data on criminals and suspicious persons; (2) police inspection of independent data sources — government records, credit bureaus, universities, etc. — for the purpose of building dossiers on suspicious persons or conducting security checks on non-suspicious citizens.

The main RCMP data centre is in Ottawa. The Mounties data bank can produce, in minutes, a reprint of the personal record of any known criminal or subversive. This data bank is connected with similar centres around the world, including the FBI Headquarters in Washington. In fact, the RCMP uses the services of the FBI computers for certain detection projects that they are not yet equipped to handle themselves.

The RCMP opens a file on someone as soon as he shows evidence of being a suspicious person. Participation in a demonstration or attendance at a political meeting is enough to start the wheels turning. Computerization has added the data bank, high speed information retrieval and electronic data networks to the RCMP's surveillance arsenal. Before the computer, dossier building was a laborious and time-consuming process. Now a dossier can be compiled by simply sending out requests from a telecommunications-equipped office. The nature of pre-computer filing systems and data records inhibited the flow of information. The computer — by its very functioning — encourages this flow of information. The computer must assume from the wealth of information that we know the RCMP dossiers to contain that there are few, if any, data banks in the country to which the Mounties cannot by one means or another achieve success.

Let's follow the RCMP through their data surveillance process as they build a dossier on a mythical subversive, Clark Canada. When starting to build a new dossier, the RCMP first check their own records. If Mr. Canada has a juvenile crime record or has been to trial for a criminal offense, chances are that the RCMP has or can obtain a copy of his fingerprints and possibly, his photograph. Although there are laws preventing the police from fingerprinting minors or saving fingerprints after an acquittal, many lawyers are certain that the police still conduct these practices. The records of the police in Clark's home town are then checked. The city police, in turn, contact information sources on a local level that the RCMP might not be aware of.

Next the Mounties check with institutions which might

## Computers and the Future

Used to thinking about the problems of storing and using written information, the citizen imagines future data centres as giant installations in huge rooms, with tens of thousands of reels of tape being lifted on and off machines by clerks, and time-consuming human operations required for any significant comparisons to be made of information about a given person scattered through the data bank. In this portrait, time, cost, efficiency, and the requirement of co-operation of considerable numbers of data-bank employees are assumed to provide real limitations on data surveillance. Nothing could be more mistaken, either in terms of the general growth predicted for the computer in America or of specific adaptations of computers to data-bank and dossier purposes.

The general trends of the next decade have been carefully outlined in several studies done for the Rand Corporation by Paul Armer and W.H. Ware. (authors of *Computer Aspects of Technological Change*) Between 1955 and 1965 the size of the central processing unit of the computer decreased by a factor of 10, from 1,000 cubic feet to 100 cubic feet. By 1975, fully integrated circuits will reduce this by a factor of 1,000 to one tenth of a cubic foot.

Between 1955 and 1965, the internal speed of computers increased by a factor of 200, from 25,000 additions per second to 5 million per second. By 1975, this will be increased another 200 times, making possible operations at the rate of a billion per second.

In terms of operational costs, the price of doing a million additions declined between 1955 and 1965 from \$10 to about 3.5 cents. By 1975, this cost will be reduced to one two-hundredth of a cent.

— Alan F. Westin, *Privacy and Freedom*

have information on record concerning Clark. If he was a recent high school or university student, then the investigators are in luck, for the educational institutions of this country contain a wealth of information on the individuals that pass through their ever-sticky fingers. The extent of record-keeping by high schools on their students varies according to school board. If Clark attended a large modern high school in Halifax, Montreal or Toronto, his file would be substantially thicker than had he endured his secondary education in a one-room affair in Tilt Harbour, Newfoundland. Suppose Clark did his time in Halifax and graduated within the last ten years: the RCMP would be provided with, upon request, the following data: (1) Clark's academic record, (2) his health record and attendance, (3) his ratings on standardized interest, intelligence and aptitude tests, (4) his extra-curricular activities and (5) subjective comments by teachers and counsellors on his character and behaviour. Although most schools have strict policies regarding access to permanent student records, school administrators are understandably willing to co-operate with the police. Here the RCMP might ask a local police official — who might know the Principal socially — to request the file.

Next, let's say that Clark attended Dalhousie for two

years. Universities are not as community-minded as high schools when it comes to permitting police access to their student records. Denial of access-permission by some university administrators caused the Royal Commission on Security to trumpet like an offended bull-moose.

*We are however somewhat disturbed by the tendency in certain university circles to use the plea of academic freedom to substantiate claims to inviolability and to privileged immunity from normal security procedures. In the first place, we can see no objection to inquiries at universities concerning persons who are seeking government employment or security clearance. In fact, we regard such inquiries as of special importance because the products of universities are more likely than other persons to reach sensitive and influential positions. In any case, university authorities can be said to have the same status as "previous employers" and should accept inquiries about students on this basis. We see no reason why any immunity should be accorded to members of faculties or student bodies who engage in subversive activities.*

— section 103, page 37.

But Dalhousie is like all other Canadian universities in that its structure and functioning is based on the marionette principal — all the limbs are controlled by strings; as soon as you have a string you have, ipso facto, a string that can be pulled. There are no regulations at Dalhousie covering the security of student records in regard to police access. When the *Mysterious East* spoke to Dal's Director of Information, we were told that an inquiring Mountie would receive "only what we have on record — in other words common knowledge (you know, name, address, home town, age, and academic record. The police would not find out anything about the student's extra-curricular activities or political affiliations simply because we do not keep such information on file." However, we were told that our curious constable might be able to acquire such information by visiting the student's department chairman.

The RCMP assigns under-cover campus cops to every major university in Canada. These men are responsible for conducting security checks on former students who apply for 'sensitive' jobs and for the surveillance of political activities. If Clark Canada, our fledgling subversive, started to attend Young Socialist meetings, his actions would be noted and at that point he would become a suspicious person.

Now, let's say that Clark drops out and goes to work. The computer has permitted both government and private employers to compile large amounts of information on their employees; this amount varies from company to company and is related to job classification. Dalhousie, for example, has extensive files on its professors, but very little on its janitors. In major corporations which run extensive training programmes — this would include executive training — the amount of information on anyone in such a programme is vast; this evaluative data is used by the company to make decisions about their trainees' careers. If Clark worked in a blue-collar position his file would be considerably smaller but would nevertheless tell the police (1) his attendance, (2) job performance, (3) relationship to employees associations such as the credit union, (4) union affiliation and activities, (5) medical history, and (6) work habits. Access to this information depends upon the company's management, but an RCMP request for assistance

usually elicits a co-operative response.

## Disclosure to Government

Notwithstanding the provisions of section 8, a consumer reporting agency must furnish identifying information respecting any consumer, limited to his name, address, former addresses, places of employment, or former places of employment, to a provincial government and its agencies or to the federal government and its agencies.

— section 12, Bill C-128, An Act respecting fair credit reporting.

The RCMP can, in most cases, re-construct an individual's financial history. Suppose Clark once took out a loan from his bank. The bank, before granting the loan, would ask the local credit bureau to run a check on his background. The credit bureau would then ask stores, banks and insurance companies that Clark deals with for their records on Mr. C. Canada. The bureau would then check with Clark's present and previous employers for work habits, and the bureau would also ask the local police to run a check on Clark's criminal record. The credit bureau would then follow Clark's repayment progress and would record the date on which the debt was paid off. If he defaulted payment, the credit bureau would have a record of the collection agency to which his case was referred. When the RCMP arrives on the scene, requesting a financial history, they can take advantage of the mutually dependent relationship that exists between the city police and the credit bureau. The credit bureau depends upon the police for criminal record checks; the police can therefore be certain of co-operation when they require information from a credit bureau file.

At the American hearings (on commercial credit bureaus) some agencies stated that they regard it as their patriotic duty to comply with all requests for information from government sources.

— R.D. Gibson and J.M. Sharp, *Privacy and Commercial Reporting Agencies*.

The credit reporting business has, like the RCMP, benefited greatly from computerization. An effectively-managed credit bureau will list not only the financial history of debtors but also any data available from court records or newspapers — lawsuits, criminal and civil actions, bankruptcies, divorce notices, deeds, etc. The credit bureau also purchases information on people who have recently moved into their area from "Welcome Wagon" agencies. The Welcome Wagon visits new residents and gives them a basket of cheap premiums in exchange for answers to a detailed questionnaire on financial status, job, property value, and services or products used. This information can now be computer-stored and referred to a central data bank. Kenneth Cheng, Director of the Ontario Statistical Centre noted in 1968 paper, *Privacy and Data Bank*, that a computerized data-centre is being planned in the U.S. which can report the credit status of any one of more than 50 million people in ninety seconds.

If Clark had ever taken out any form of insurance, then the RCMP might check with his insurance company. A life insurance policy in Clark's name would lead police to the

Medical Information Bureau. The M.I.B. requires its subscribers to report all medical impairments of their clients; the M.I.B. functions as an inter-company index for the insurance business. This information is then sold to any member company upon request. In addition to medical impairment, M.I.B. collects information under the following supplemental headings: Nonconformity, Insurance hazard (sexual deviations, criminal record), Reckless Driving, Age, Environment, Foreign resident or travel, Participation in hazardous sports, Occupation.

Clark's dealings with provincial or federal departments is another information source the RCMP might check. However, the success of their inquiries would depend on the department in question. Welfare records, motor vehicle department files, national revenue files, and the record of Immigration officials are moderately accessible to police investigators. Census records and social security files are far more difficult to crack. However, one lawyer we interviewed was certain — though he could not offer any proof — that the RCMP can acquire census records.

Clark's dossier, once it is stored at RCMP headquarters, becomes a sacred document. Only a small number of specially-designated RCMP and government officials are permitted to see the dossier. If a government department or private corporation requested Clark's security background, they would receive only a clearance report. These reports vary in sophistication according to the identity of the recipient. A corporation would receive merely a clearance or non-clearance rating. For example, Clark might be cleared for sensitive statistical data but not cleared for top secret documents.

## DATA SURVEILLANCE PROBLEMS & RECOMMENDATIONS

There is very little that can be done to restrict or supervise police practices in the areas of visual surveillance and bugging. Few laws exist covering harassment and invasion of privacy; there are practically no cases on record of law enforcement agencies in Canada being sued for damages under either heading. Although the federal government is beginning to move into the area of privacy legislation with regard to intercepting private communications, these new laws will actually have very little effect upon police conduct.

However, police surveillance of data on individuals held by non-police institutions can feasibly be regulated. This is an area in which invasions of citizen's rights to privacy most frequently occur. Everyone who accumulates data on individuals — not just the police — should be subject to legal controls. Data is highly vulnerable.

Data surveillance is becoming a crucial issue in regard to citizens' rights because of the social functions performed by dossier-type records. Dossiers and records, whether in a high school, business office, or police department act as a form of social control. Though they may appear to be merely passive mirrors of events, the existence of records themselves serve as social constraints; people are generally motivated to develop a "good" record and not a "bad" one. Records establish an individual's identity and maintain that identity long after the individual has ceased to have any

form of communication with the institution. This, in effect enslaves the individual to another person's interpretation of a recorded portion of his past. Dossiers can further influence a person's life by being used as predictors for future conduct; this dossier-function is most often applied by prospective employers. In this case dossiers can become justification rather than the predictors; the "self-fulfilling prophecy" danger is acute.

The growth of record keeping on individuals in Canada is leading to a situation wherein institutions relate to records, not to the people whose daily lives are mis-represented by these records. Dossiers are more easily assimilated into communications systems based on information than on the behaviour of individuals. Dossiers have a legitimacy because of their factual content. They have a permanence not found in oral communication. Because they are transferable, dossiers have a life of their own — usually unknown to the individual who is the subject, and dossiers are faceless. There is no need to concern oneself with the existential reality of another human being when reading a computer tape.

The point that records are increasingly used as a basis for making important decisions about people has not been overlooked by those to whom their records refer, and (the text) talks of the prospects of an emerging "dossier consciousness" among the population... What is the likelihood that we will become a dossier conscious society? If we do, what will be the long-term impact? Will people develop an increasingly bifurcated personality, one part oriented to their private lives, a second part oriented to matters of records? It is conceivable that the record-keeping process itself could so blur our collective vision that we will become increasingly concerned, not with what we are, but with what the record makes us out to be.

— Stanton Wheeler, *On Record*.

Because of the above characteristics of personal records and the implications of these characteristics for people 'on record', controls on information flow must be established to protect citizens from invasions of privacy. These controls would apply to everyone, not only the police. In the absence of federal laws covering privacy rights, data-flow controls could be applied from within by the data-holding institution. As the general public becomes more aware of their privacy rights and the threat to those rights posed by the abuse of computer technology, some institutions — at least in the U.S. — are beginning to act. Alan F. Westin reports the "Columbia University came to the conclusion that it had so much information about its students that was being asked for by the FBI and loyalty security agencies, that in the interests of the privacy of the students, they had to devise a policy as to what they would release, especially as it has become machine-stored and they could simply print out all kinds of things about students." Columbia set up rules which required their own Registrar to seek a student's permission before releasing any information on record beyond the surface facts of name, address, year of study, home town, etc. Neither Dalhousie, nor any other Canadian university, feel the need to behave in a similar fashion.

The flow of information on individuals could be controlled in the credit reporting business by demanding that reporting agencies be required to notify the person to

whom the report refers of all reports released in his name. The subject-person should be able to examine his file at the office of the agency. The agencies should also be required when the subject insists, to forward to the recipients of the original reports notice that the subject disputes certain items.

Everyone should have this right of verification, not only with reference to credit reporting agencies, but for every place where personal records are stored. An individual should be able to verify his own file; he should be free to challenge certain entries and impose restrictions on access to his fruit.

According to American Civil Liberties Union reports, in 40% of cases of arrest in the U.S. that are dismissed, the all important fact of that dismissal is not recorded, although the original arrest is! Many of these arrests are for trivial reasons, such as forgetting driver's licence, fishing without a licence, etc. It is not possible to avoid all recording errors due either to man or machine.

— Kenneth Cheng, *Privacy and Data Bank*.

Furthermore, data banks and other information storing systems should be required by law to maintain records of access. These records would reveal to the individual the names of those who have been withdrawing information from his file, and would serve to discourage invasions of privacy.

## CONCLUSION

All types of police surveillance will continue unchecked until the federal or provincial governments create laws which protect the individual from invasion of privacy. The most comprehensive document that we found in our research on the reform — and creation — of privacy-protecting legislation in Canada is the *Report on Protection of Privacy in Ontario*, compiled by the Ontario Law Reform Commission for the provincial Attorney General in 1968. None of the Maritime provinces have any legislation regarding specifically privacy protection. Nor have any of the Maritime provinces even studied the problem area as has Ontario. Perhaps this can be chalked up to that famous by-product of the tourist trade, "Maritime Friendliness". Just plain down-home folks like us surely got nothin' to hide.

The police have often been accused in the past of behaving as if they were themselves above the law. When there is no law other than what they impose upon themselves in the form of operating policies, they are free to carry on their business affairs as they see fit. A law unto themselves.

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# WHAT IS WHITE ON THE OUTSIDE AND GREEN ON THE INSIDE? A FROG SANDWICH!

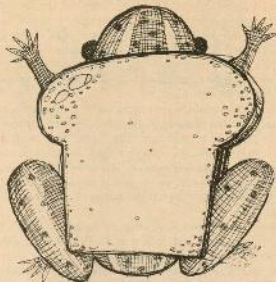
**B**ACK IN THE EARLY SIXTIES, before anyone realized just how serious the situation was, one of the most popular spectator sports in the United States — and Canada too — was watching the legion of red-necked law enforcement officers and politicians in the Southern United States — Lester Maddox, Bull Connor, even George Wallace — who had been catapulted into the public arena by the new militance of Southern blacks.

Standing in the doorways of schools, passing out axe handles in their restaurants, waving their fire hoses and turning loose their dogs, commanding the black tide to halt, they seemed vaguely anachronistic figures, we all thought, fighting desperately to save the nineteenth century from demolition. At that time almost no one recognized that they were the future, that as the sixties marched on they would stop being comic and become common, appearing no longer only in isolated and vaguely romantic-sounding Southern cities like Atlanta, Jackson, Birmingham, Little Rock, but would come to dominate American politics from Los Angeles to Boston, from Miami to Chicago, from San Francisco to Detroit.

Canadians watching that process may not actually have felt smug, but, as Swift pointed out a long time ago, when our friends have trouble we can at least comfort ourselves with reflecting that things are not yet so bad with us.

It's only over the last few years, and our experience of the Quebec separatist movement, the Laporte-Cross kidnapping, the long-drawn out agony of attempting to accommodate the French fact as America has had to accommodate the black fact, that that smugness has turned a little bitter in our mouths. And now that we're beginning to develop our own Bull Connors and Lester Maddoxes it's a bit harder to be amused at them than it was in 1962.

**A**ND YET THEY DO MAKE IT DIFFICULT to take them seriously. Consider the most recent prominent candidate to replace Wacky Bennet as the nation's foremost bigot, our own Leonard C. Jones, Mayor of Moncton. Looking at the history of his political



career is a little like discovering that Lester Maddox once said that Jesus' name is the most powerful business force in the Yellow Pages — too good to be true.

Proponents of Jones as a contender for a position among the nation's top comic politicians have pointed out for years his anti-pornography campaigns, his vendettas against the hiring of long-haired youths. They saw as a clincher his comment, when Mel Hurtig passed through Moncton some time ago, that he didn't trust anyone whose ears he couldn't see. (What made it especially nice, they said, was that judging by the kind of administration Moncton has had under Jones, he seems to trust anyone whose ears he CAN see).

It was over the past winter, however, that Mayor Jones' case for some sort of award was finally made incontrovertible. Beginning with the furor over the film *L'Acadie, L'Acadie*, which, among other things, shows Jones treating Acadian students the way Bull Connor used to treat the "nigras", and continuing through a series of actions which led even an establishment figure like New Brunswick Finance Minister Jean-Maurice Simard to call Jones "very close" to a "bigot", Jones established himself as a national symbol of dogged anti-French sentiment.

On February 15, for instance, Jones cast the deciding vote when the city of Moncton, 35 per cent Acadian, decided to "shelve" the question of providing bilingual services at City Hall. This led even l'Oncle Thomas Adelaar Savoie, the president of the Université de Moncton who refused to press for a French-language trial in the case of Paul Blanchard, to say he was "shocked". Others were less restrained; 1 500 demonstrators buried a coffin in front of City Hall a couple of nights later.

Jones then said that bilingual service would be too expensive for the city, that 40 per cent of the city hall staff was already bilingual (Whitman once said "Do I contradict myself? Very well then, I contradict myself. I am large; contain multitudes." Mr. Jones is large, too, and probably contains multitudes). He proposed a plebiscite at the next civic election — probably sometime in the spring of 1974.

Then he went on the radio and among other things, in-

timated that the pressure for bilingual services was coming from the "unilingual" Université de Moncton and hinted at sinister outside forces, obscure threats and obscene phone calls. He called attention to the difficulty of translating from one language to another, saying that "it would be most unfortunate if a person's intentions or thoughts were misconstrued as a result of a poor translation." Clearly, he implied, a better alternative would be no translation at all — you can't have misunderstanding where there's no understanding in the first place.

He talked about the cost of repainting street signs, of the fact that the listening audience of the French radio station in Moncton is small, and called again for that plebiscite — after "a time for cooling, a time for recollection of your great heritage and history." Presumably Mayor Jones wishes us to recall that Moncton was named after the British general who carried out the orders to expel the Acadians in 1755?

But it wasn't until March that his paranoia became apparent. In an innocuous speech in the Provincial Legislature, Arthur Buck (PC — Moncton) mentioned a recent ceremony in which a delegation from Lafayette, Louisiana had arrived in Moncton for an equally innocuous civic ritual called "twinning" the two cities, and had made Jones as well as the rest of Moncton City Council honorary (Louisiana)

Acadians. Astonishingly, when he heard of Buck's speech, Mayor Jones erupted, claiming that he had been placed in "an awkward position" by the speech, that Buck was "interfering in municipal business", that the Provincial government "had no right to force bilingualism on the province's cities". He fired his Honorary Acadian certificate right back to Louisiana, explaining that he really didn't know who gave it to him because "The certificate wasn't written in my mother tongue". (The suggestion that it wasn't until Buck's speech that he realized it wasn't an honorary membership in the Louisiana Ku Klux Klan was quashed as the work of outside agitators).

Then a few weeks later, Jones announced that the Federal and Provincial Official Languages Acts were unconstitutional — in contravention of the BNA Act — and that he intended to challenge them in the courts.

Now, we don't know how long it'll take Mayor Jones to attain the national renown due him, but we have a local kind of renown to which dozens of *The Mysterious East* readers have nominated the Honorable Mr. Jones: our Rubber Duck Award, given periodically to the public figure who has most distinguished himself for folly and/or knavery. We can't remember a more deserving recipient than Mayor Jones.

## CONTRIBUTOR DIMENSION



November 1971



January 1972



March 1972

## Investigates Labour in Canada

- Kari Levitt      Beyond Foreign Ownership
- John Richards      Plant Shutdowns: Taking Over Imperial Oil
- Mark Zwilling      The Strike at Texpack's Vanishing Plant
- Quebec Federation of Labour Manifesto Towards a New Strategy  
— a radical analysis

**Bach-Simpsons: A Strike that Failed**  
—James W. Rhinehart

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BOOK REVIEW  
BY ANDREW SCOTT

# CAN WE SURVIVE?

LIMITS TO GROWTH  
Donella H. Meadows, Dennis L. Meadows,  
Jorgen Randers, William W. Behrens III  
Universe Books, New York

**T**HE LAST YEARS HAVE produced an alarming number of books documenting and forecasting the general disintegration of humanity and the planet Earth. Works on environmental deterioration seem to comprise the bulk of the recent deluge, but we have also been exposed to the glastly overpopulated scenarios of Paul Ehrlich, the possibilities of capitalistic economic chaos, the severe exhaustion of non-renewable resources, the dangers of unchecked industrial development and indiscriminate technological advance, the horror of Laing's urban schizophrenia, the optimistic warnings of Buckminster Fuller and many other prophets of re-evaluation or doom. The flood of well-documented research and the evidence of our own senses make these recent works impossible to ignore. Regardless of the importance of the message, however, it becomes increasingly depressing to keep up with the literature of world trends. The compulsion to read *The Population Bomb* after finishing *Silent Spring* is not usually pleasurable in discovering new and interesting subject matter. It's simply that you have to find out what else is wrong. Sometimes one wishes one could gather all the prognostications for the future under one title: a work that would explore the necessary and obvious inter-relationships between pollution and overpopulation, between resource depletion and industrial development. *The Limits to Growth* provides us with a global model of world trends for the next hundred years or more and seems to be the closest thing to a more comprehensive examination of the foreseeable future that has yet appeared.

*The Limits to Growth* is an interim report from the Club of Rome, an international association of approximately seventy scientists, educators, economists, humanists, industrialists and civil servants. The club's first undertaking was the Project on the Predicament of Mankind. Phase One of this project involved assembling a global model to examine the five basic factors that determine and limit growth on

## THE LIMITS TO growth

Donella H. Meadows  
Dennis L. Meadows  
Jorgen Randers  
William W. Behrens III

A report for THE CLUB OF ROME'S Project on the  
Predicament of Mankind

A POTOMAC ASSOCIATES BOOK \$2.75

this planet — population, agricultural production, natural resources, industrial production, and pollution. *The Limits to Growth* is the nontechnical presentation of the now completed research of Phase One. Little space is devoted to an examination of the actual model used and after a brief introduction to the nature of exponential growth as opposed to linear growth, the reader is immersed in the actual research findings. The book's conclusions are summarized in the introduction and are probably worth repeating:

- 1) *If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached sometime within the next hundred years. The most probable result will be a rather sudden and uncontrollable decline in both population and industrial activity.*
- 2) *It is possible to alter these growth trends and to establish a condition of ecological and economic stability that is sustainable far into the future. The state of global equilibrium could be designed so that the basic material needs of each person on earth are satisfied and each person has an equal opportunity to realize his individual human potential.*
- 3) *If the world's people decide to strive for this second outcome rather than the first, the sooner they begin working to attain it, the greater will be their chances of success.*

**E**XPONENTIAL GROWTH IS A BASIC factor in plotting world trends. Human beings are used to thinking in linear terms but the various factors that contribute to global survival do not increase or decrease in a methodical, linear fashion. They increase or decrease by a constant percentage of the whole in a constant time period and this exponential quality drastically magnifies the rate of growth. For example, know nickel reserves would last for 150 years if they were exploited at the rate they are now, but of course they will not be. Nickel con-

sumption increases at an average of 3.4% per year and this exponential growth factor will reduce the known reserves to nothing in a mere 53 years. Exponential growth introduces new and frightening concepts. It shows how one can move within a very few years from a situation of great abundance to one of great scarcity. It also tends to dwarf the possible contributions of technology and social reorganization towards salvaging our planet, because of the severe time limitations. By returning to the example of consumption of nonrenewable natural resources, the implications of exponential growth become quite terrible. Known gold reserves will be exhausted by 1979 and it would appear that in so short a space of time, technological advances in the fields of mining engineering and metal recycling could do little to prevent the disappearance of an important resource. Many other vital natural resources will be gone before the end of the century — mercury and silver by 1983, tin by 1985, zinc by 1988, petroleum by 1990, copper and lead by 1991 and natural gas by 1992. That's not very long.

*The Limits to Growth* extracts the basic physical factors that will eventually describe our earthly limitations. The authors go on to determine any causal relationships between these basic factors and to discover any auxiliary factors that might influence their growth. The basic and auxiliary factors that will limit the growth of population, agricultural production, resource depletion, industrial output and pollution are then incorporated into a world model. The illustrated world model is a confusion of boxes and arrows involving strange auxiliary factors like the industrial capital utilization fraction, marginal productivity of land development, pollution appearance delay, desired birth multiplier from industrial output and about a hundred others, making the model somewhat difficult to follow unless you are a computer. The authors frequently stress the rather arbitrary nature of the factors selected and the very general scope they have been forced to take but insist that they are able to make generalized but fairly accurate predictions and to discover various "behaviour modes" for their world model. They invite criticism of their structural devices and hope to be able to update the model when more sophisticated data becomes available in such areas as pollution absorption limits about which virtually nothing is known. The authors then run their world model through the old cookie press and come up with what they refer to as a "standard run". This computer diagram assumes no major changes in the physical, economic or social relationships that have historically governed the development of the world system. All variables follow historical values from 1900 to 1970. The model shows food production, industrial output and population growing exponentially until a rapidly diminishing resource base forces a slowdown in industrial growth about fifty years from now. Because of natural delays in the system, both population and pollution continue to increase for some time (twenty to forty years) after the peak of industrialization. Population growth is then halted by a rise in the death rate due to decreased food and medical services. That's the approximate phraseology used in the book and it's rather mild, to say the least. The authors then alter the "standard run" with such modifications as doubling the natural resource reserves or assuming unlimited (i.e. recycled) resources, pollution controls, increased agricultural productivity, perfect birth

control or combinations of the above. Nearly all these "modified runs" merely extend by a few years the inevitable outcome — a dramatic drop in world population.

**T**HE AUTHORS DEFEND the generalized inadequacies of their model with two main arguments. First, they hope that by posing a number of hypothetical relationships and by emphasizing their importance in the total world system, they can generate discussion and research which would eventually improve the available data. Second, they claim that even with the data on hand at present, the model generates basic valid behaviour modes for the world system. Large changes in input data may well affect the rate of growth of the time of collapse, but the basic behaviour modes of growth or collapse remain in effect.

The authors maintain that a very basic question now faces mankind — a question that it will have to resolve in one way or another in a very short time. The question is one that faces any society trying to overcome a natural limit with a new technology.

*It is better to try to live within that limit by accepting a self-imposed restriction on growth? Or is it preferable to go on growing until some other natural limit arises, in the hope that at that time another technological leap will allow growth to continue still longer?*

The authors go on to point out that for the last several hundred years, humanity has consistently and successfully followed the second course and that the first possibility has very nearly been forgotten. All the previously mentioned "modified runs" proceeding from the world model involved factors determined by vast future technological advances such as "unlimited" resources or "perfect" birth control. Unfortunately, all these technology-dependent improvements in basic global growth trends merely delayed catastrophe, and not for very long either.

*The Limits to Growth* is not a condemnation of technology. Its authors believe that such developments as recycling, pollution control devices and contraceptives are absolutely vital to the future of human society — but only if they are combined with deliberate checks on growth. They declare that society will have to establish the answers to three basic questions before any new technology is widely adopted. It will have to know the physical and social side-effects of any new technological development introduced on a large scale. Society will have to find out what social changes will be necessary before this development can be implemented properly and how long it will take to achieve them. Finally, society will have to discover what new limit the system will run up against if the development is successful in removing some natural limit to growth and whether these new pressures will be preferable to the ones the development was designed to remove.

**T**HE AUTHORS CONTRIVE a number of "modified runs" based on the alternative proposition of self-imposed restrictions on growth. The outcome of these hypotheses are much more heurtening than the technology-dependent scenarios. The authors search for a world output that represents a world system that is sustainable without sudden and uncontrollable collapse and is capable of satisfying the basic material requirements of all of its people. They start with a world model with a stabilized

population after 1975 where the birth rate is equal to the death rate but eventual depletion of nonrenewable resources brings a sudden collapse of the industrial system. By adding to the previous model a restriction in capital growth, where capital investment equals depreciation, a temporarily stable state is produced. A relatively high output of food, industrial output, and services per person is achieved but again, eventual resource shortages reduce industrial output and stability is lost.

A stabilized world model is eventually produced by introducing such technological policies as resource recycling, pollution control devices, increased lifetime of all forms of capital, and methods of restoring eroded and infertile soil and then combining them with the previous model. This world would have a population only slightly larger than that of today; there would be twice as much food per person; average industrial output would be well above today's level and services per capita would have tripled. Average income per capita would be about \$1,800, much less than the U.S. average, about equal to the European average, three times the world average and slightly less than living on unemployment insurance premiums in New Brunswick. Such a world could be maintained far into the future. Another world model indicates that if the introduction of the aforementioned technological policies is delayed until the year 2000, then again the overshoot and collapse mode of world behaviour becomes operative. 28 years hardly seems long enough to introduce such wide ranging physical, social and mental changes but whether we make it or not, *The Limits to Growth* indicates that nearly every young person alive today will know the fate of his children and his planet before he dies. One small consolation for us, one giant threat for our descendants.



Last year, in time to just miss the planting season for 1971, *The Mysterious East* published a centrefold on gardening.

Not wishing to alter such a sterling record we again offer information about Maritime gardening just in time to almost miss the planting season for 1972. Fortunately Mother Nature has put the region's growing season all out of phase this year. Fortunately for you anyway. For you have the opportunity to write to us requesting the May-June 1971 issue of *The Mysterious East*. Send us 50 cents and we will send a copy out by return mail. Then you can begin gardening with vengeance.

Hopefully, you will find everything you need for your 50 cents. The article outlines organic gardening with soils, fertilizers, planting, weeding and harvesting. We even have one unsolicited endorsement of the comprehensive nature of material presented. Remember too that other back issues of the magazine are available. Write to us.



# MONITOR

## BILLBOARDS

ST. CATHERINES, ONTARIO — One of the most ambitious artist-initiated programmes in recent times was intended to free art from the confines of the gallery and display it to the people in the street. But the Niagara Now '72 Billboard Show represented more than just an attempt to beautify our streets and buildings and to give fine art a dollar value in the world of advertising. It brought the best work being produced by the 30 practising artists of the Niagara Artists' Co-operative to the widest possible audience through the use of fourteen strategically located billboards and a major exhibition at Rodman Hall Arts Centre in downtown St. Catharines. Since billboards seem to be here to stay, it's nice to hear that at least some people want to make them as artistically pleasing as possible.

## HITCHHIKING BOOKLETS

POLAND — Transient youth? An article in the April, 1972 issue of the *National Geographic* (Vol. 141, No. 4) describes a system used in Poland:

'Anyone over 17 can buy a green hitchhiking booklet; it provides accident insurance, and contains sheets of coupons. The hitchhiker holds up his booklet, and, after he is picked up, he gives the driver a coupon for every 25 kilometers (approx. 16 miles); drivers turn in these coupons for a lottery; first prize is a Polski Fiat. Should a hitchhiker misbehave—well, there's his number on the coupon.'

## PLASTIC FOLIAGE

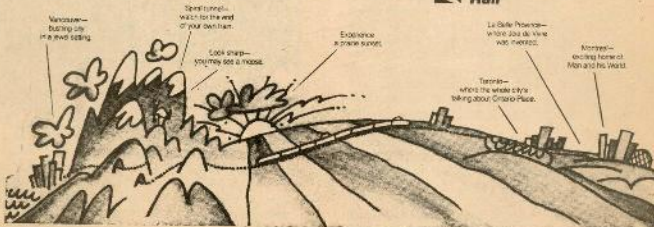
LOS ANGELES — The Los Angeles County Department of Public Works has, of course, always been known for its sensitivity to social and environmental values. Last January, with the comment that California motorists drive too fast to see much anyway, Public Works began fulfilling its long-cherished pipe dream of lining Jefferson Boulevard in Marina del Rey with 900 plastic plants surrealistically enhanced with epoxy boulders painted green.

Fortunately, enough people protested the plastic that Public Works was obliged to weed out the factory-fresh foliage. \$74,000 worth of it. As one alarmed motorist put it, 'The reason we drive faster and faster is because there is less and less to see!'

## To all those Canadians who have never crossed Canada:

It's all there waiting for you. Mile after mile of incredible beauty and splendour. Silver lakes. Flashing mountain streams. Golden wheatfields. Snow-capped mountains. You'll be impressed. By the sheer vastness and variety of it all. And by the fact that it's all right here in Canada. And if you would really see Canada—relaxed and free to take it all in—then see it from The Canadian

The Canadian has Scenic Domes with wrap-around windows. It has good food, music, lounges, and a wide choice of accommodation. Daily service each way between Montreal/Toronto and Vancouver. Call your Travel Agent, or any CP Rail office. Make this the year you really get to see Canada—your own country.



And certainly Canadians should cross Canada. It's a beautiful country. Unfortunately, the CPR's Canada does not extend to the Maritimes. But then, considering the quality of service here, perhaps it's just as well.

FREDERICTON — When, recently, the New Brunswick Human Rights Commission wanted to commission a history of the blacks in New Brunswick, they decided that not only would such a study perform a useful social service by itself, but that it should be published and widely distributed, and written in language that anybody could understand: such books are part of the indispensable spadework involved in helping the dispossessed, like New Brunswick's Black population, to discover who they are and what their position is.

The Commission got Bill Spray, head of the history department at Fredericton's St. Thomas University, to do the book and arranged to have it published by Brunswick Press of Fredericton, part of the Irving *Daily Gleaner-Atlantic Advocate* group.

Well, the book was published a month or so ago. It's a solid little book, full of information about a little-known subject and—as it was designed to be—about as revolutionary as the *Halifax Chronicle-Herald*. But surely a book worthy of some note here and there.

You haven't heard of it? Neither has anybody else. Two weeks after it was published, Cyril Byrnes, another expert on Maritime blacks, was on the radio from Halifax calling desperately for someone to publish a study of some group of blacks in the Maritimes. He hadn't heard of it either. And if news hasn't penetrated to an interested party as close as Halifax, you can bet it's a closely-guarded secret in Toronto or beyond.

What happened? Well, Brunswick Press isn't advertising the book. Too controversial, apparently: it seems they were not enthusiastic about publishing it in the first place, and only agreed to do it because of the prestige of the provincial Human Rights Commission. Is the ghost of Brigadier Wardell still active enough in the streets of Fredericton that even when the local bookstore placed an ad in the *Gleaner* for the book, there was a reference to the struggle for recognition and equality that 'some say' is still continuing? So the book looks likely to fill the warehouse at Brunswick for quite some time: after all, the publication was subsidized so they don't stand to lose much money. And think of the reputation they'd lose as purveyors of revolutionary literature.

## FRED AID TO THE PRIVATE WOODLOTS

The C.I.C. announced recently that an inventory on private woodlots would begin immediately in Northern New Brunswick. The funds for this project, approximately \$175,000, have been granted under the FRED agreement for Northeastern New Brunswick.

The North Shore Forestry Syndicate will control the general administration of the project.

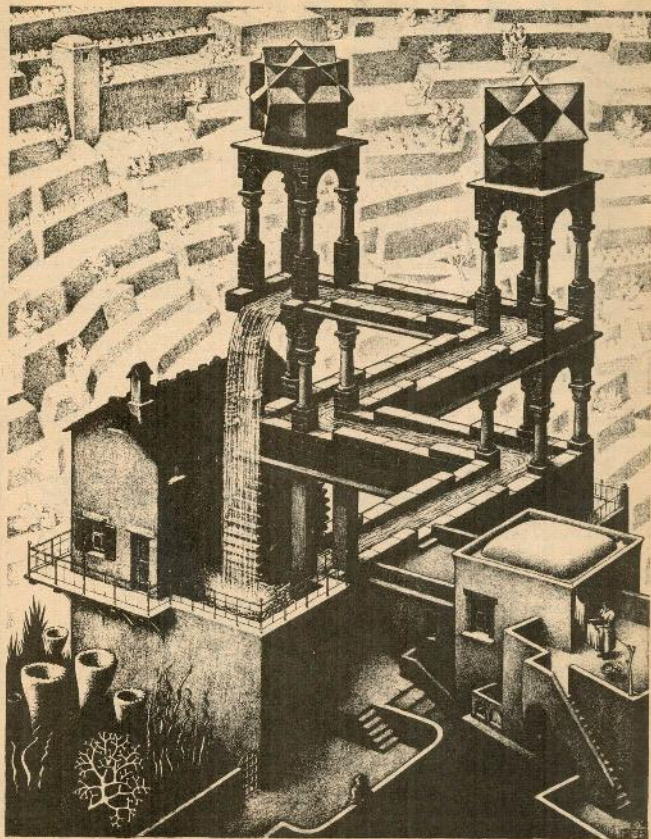
Mr. James G. Fowler has been selected as co-ordinator of the project. He holds a Bachelor of Science degree in Forestry from U.N.B. He was employed by "Bathurst Paper Ltd., Chaleur Woodlands Division" from 1947 to 1952. From 1952 to 1972 he was employed by "Bathurst Woodlands Division". Mr. Fowler is a member of the "Registered Professional Foresters of New Brunswick", the Canadian Pulp and Paper Association, Woodlands section, and the Canadian Forestry Assoc-

iation of New Brunswick, Inc.

In addition to providing measurement of timber resources available in private woodlots in Northern New Brunswick, the inventory will provide information which will be indispensable in allowing the Syndicate to evaluate the possibilities of establishing small sawmills and other wood-processing industries in the region. These small mills would be set up on a co-operative basis with the Syndicate's members as the owners and directors of these industries.

If the establishment of these mills proves to be feasible, the inventory will have constituted a decisive step towards greater autonomy for private woodlot producers in the region through the creation of new markets for their products, and markets which they will control themselves, and from which they will receive full benefits.





RECYCLING



# reaction



Sirs:

I do not intend any reply as such to the gratuitous remarks of Sandy Campbell, publisher of the Cape Breton *Highlander*, which appeared after my letter in your last issue, because Campbell's letter illustrated his inability to defend himself except by personal vilification better than anything I could say.

The publication of the Malcolm Gamble letter, however, with the covering remarks, left a false impression and I would appreciate it if you could publish a brief explanation.

December 16, 1971.

Mr. Malcolm Gamble  
19 April Terrace  
SYDNEY, Nova Scotia

Dear Mr. Gamble,

I read the dirty lies about me which you had published in the *Highlander*. When one works as hard I do trying to help make a better life for people like Malcolm Gamble, this kind of abuse from someone who knows better is pretty rotten. You might start helping to eliminate pollution in Sydney by applying this piece of toilet paper to yourself. Please rub vigorously.

Yours faithfully,

PAUL MacEWAN  
M.L.A. C.B. Nova

The letter to Gamble was written to him as an individual; it had nothing to do with any people in any tenants' association. It followed publication in the *Highlander* of a letter to the editor which made a number of very false statements about me. I felt it most appropriate to attempt to shame the author of the letter as thoroughly as I could, and I think I succeeded.

I am not the victim of any "paranoia about criticism from any quarter", but I do resent very strongly the type of personal abuse and distortion of fact which Sandy Campbell stands for. It is peculiar that this man, who fancies himself to be a reformer and attacks me as a "right-winger" who "rips off the ordinary people", is so "left-wing" and "people-oriented" himself that he not only was awarded the radio station licensed by a federal Liberal government, but also was appointed to a Royal Commission at a handsome per diem by the provincial Liberal government.

I am quite content to leave it to the people to decide who is the "right-winger" and who rips off the ordinary people. Some months ago, I challenged Sandy Campbell to

be my Liberal opponent in the next provincial election. So far, he has declined that offer. If I am such a right-winger, and I so rip off the ordinary people, then he should not have much trouble in defeating me. My constituency is among the most "ordinary people"-oriented in Cape Breton, so with all these poor people that I am ripping off, Sandy should have no trouble at all. How about it, Sandy?

I am confident to predict that this worthy will continue to duck my challenge, and continue to hide behind the pages of his paper while throwing all the bull he can. And he will, in the end, wind up getting the horns. Of that one can be quite sure.

Yours truly,

PAUL MacEWAN  
M.L.A. Cape Breton  
Nova

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*On November 24, 1971, Mr. Huxter mailed this letter which raises some very serious questions concerning the Saint John Deep project at Lorneville to Premier Hatfield. At the time of publication, the Premier had not replied.*

Dear Mr. Premier:

I read with interest the announcement of Saint John Deep in the *Telegraph* recently. It is a project of high possible economic return for Saint John and the Province. But it is also a project with many possible difficulties.

It would seem to indicate a decided step on the part of the Government toward heavy industry in the Saint John area and perhaps an acceptance by the Government of the unpleasant environmental problems that necessarily will follow. The mention by Mr. Addison of a refinery, steel mill, chemical plants etc. are all industries with high pollution potential. The recent inability or unwillingness of the provincial government to enforce pollution deadlines for the pulp and paper industry in the province does not speak well for the Government's capability to handle new types of pollution problems. I suspect the technical knowledge required for adequate control is not available in New Brunswick and possibly is not even sought by provincials in the planning of such projects.

As I have said it would appear that government intentions, insofar as government affairs are rationally ordered or intended, are to make Saint John a centre for heavy, pollution intense industries. The advantages of such proposals must be weighed against the possible advantages of a completely alternate proposal of restricting such industries in New Brunswick, which is a proposal I recall you making a few years ago, and encouraging low pollution, labour intensive industry to preserve our beautiful environment and thus take advantage of the desires of the large populations of the New England states to find more pleasant surroundings. Surely Maine to some degree has taken this step.

The economic advantages of Saint John Deep as a transhipment point only may not be particularly good. A study done at M.I.T. this year on coastal zone management in the New England area came to the conclusion that the use of Machiasport as a transhipment terminal only without a refinery would be economically unfeasible because of distribu-

tion and transportation costs. The study concluded that only if a refinery were built at Machiport would the site be economically advantageous. Since Saint John is further away from major consumer centres the same conclusion logically holds for Saint John. Also, one should query why the Irving Canaport with its potential for use as a transshipment point has not been so used.

However, logic does seem to indicate that a deep water port near the New England states would be a good investment. New England is short on petroleum products and the U.S. Mandatory Import Program has restricted the importation of larger quantities of foreign oil into New England. (This does raise the point, however, of how Conoco is going to circumvent these same import restrictions.) If the M.I.T. study is correct, though, it would indicate that some added advantage must pertain to a transshipment terminal so far from major markets.

The one they suggest is a refinery, which is a need in New England since presently there are no refineries in the New England area. Another possibility, I would think, might be the use of the terminal by tankers carrying LNG (Liquid Natural Gas). There is an even more acute shortage of natural gas in New England than fuel oil and gasoline products. The advance in technology by the introduction of LNG tankers is coming to the point where importation by such means will be competitive with domestic gas supplies. It seems to me the use of Saint John Deep for such a purpose might well be worth investigating.

LNG has other advantages over petroleum products by the fact that U.S. imports restrictions are less severe and it is essentially a pollution free hydrocarbon product.

Every effort must be made to see that environmental matters are carefully reviewed for Saint John Deep. It is not sufficient to accept the word of Conoco on these matters. Possibly the NBDC studies should be subject to skepticism also. Independent analysis is probably the best and most safe path.

There are three types of pollution dangers from such a terminal: (1) terminal spills due to leakage, overflows, broker valves, etc., (2) accidental and catastrophic incidents as the result of collisions or strandings such as the Arrow, and (3) intentional discharge of contaminated ballast water and bilge. Of these three types Conoco would have the most control over terminal spills. I suspect that their statements concerning precautions against such spills are reasonably *de*. But every detail should be double checked. Besides the technical problems of design and equipment, most terminal spills result from human error so it is of course important that the terminal crew be properly trained and pollution conscious.

As for the other types of pollution possibilities, Conoco has much less control in these areas. One major factor may be the ownership and control of the vessels which will be using the terminal. Presently over 50% of the world oil moving via the oceans is transported by independent tanker owners. Conoco's shipping and supply intentions should be carefully checked. The reason for this concern is that independents are generally much less responsible about pollution matters than major oil companies. This is not to say that all oil companies are above reproach, however.

Another problem which might result is a con-

flikt of jurisdiction between the U.S. and Canada. Although Canada has enacted quite strict measures for dealing with oil pollution, part of the route the tankers may follow will be outside Canadian jurisdiction. But spills which occur in narrow waterways do not remain in one area and could easily affect not only the Bay of Fundy but also the west and south coasts of Nova Scotia.

Every effort must be made to protect the environment of the Bay of Fundy. It is one of the most productive areas, biologically speaking, in the entire oceans. A major spill or series of low level spills, because of the great tidal fluctuations of the Bay of Fundy, could be disastrous for the entire Bay.

Navigation and traffic control problems should be thoroughly investigated. If the terminal operates at capacity of 300,000 bpd, the average daily traffic just to the terminal, regardless of other vessels in the area, will be over 10 ships per day. It would seem that such traffic might be sufficient to call for a traffic control scheme such as have been established in other areas of the world. The navigational standards to be used should also be thoroughly investigated. This applies to both landbased systems and equipment on board vessels. I doubt whether the best systems are presently employed either on land or on many ships using the Bay of Fundy. It is, of course, not sufficient to look only at navigational aids on board vessels using the terminal because of the dangers of collision with vessels using other ports in the area. Such vessels may be very poorly equipped and the frequency of fog in the Bay of Fundy area raises the spectre of collisions similar to that in the English Channel.

These are just a few, brief, general concerns I have over the establishment of Saint John Deep. The project may prove a great benefit to the province, but planning in this area can no longer be only concerned with primary objectives or first order effects. Second order or indirect consequences in many instances prove to wipe out the advantages of primary objectives.

I thank you for your consideration of these ideas. I have more detailed materials on the technical and legal problems which might crop up in the establishing of Saint John Deep if you should so desire.

Yours very truly,

Lawson A.W. Hunter  
Post-Doctoral Fellow  
Marine Policy and Ocean  
Management  
Woods Hole Oceanographic  
Institution.

# Back of the Book

## WHO WORKS?

The population of Canada is 22 million, but there are 7 million over 65 years of age leaving 15 million to do the work. People under 21 total 10 million leaving 5 million to do the work. 2 million government employees leave 3 million to do the work. Five hundred thousand in the armed forces leave 2,500,000 workers.

Deduct 1,250,000 provincial, municipal, and city employees which leaves 1,250,000 to do the work.

There are 250,000 people in hospitals, asylums, etc. leaving 1,000,000 to do the work. But 700,000 of these are unemployed and 200,000 are on welfare or won't work, so that leaves 100,000 to do the work.

Now it may interest you to know that there are 80,000 people out of the country at any one time and 19,998 people in jail so that leaves just two people to do all the work.

And that is you and me, Brother, and I'm getting tired of doing everything by myself! SO LET'S GET WITH IT!

## POKER AND BUSINESS

"Poker's own brand of ethics is different from the ethical ideals of civilized human relationships. The game calls for distrust of the other fellow. It ignores the claim of friendship. Cunning deception and concealment of one's strength and intentions, not kindness and open-heartedness, are vital in poker. No one thinks any the worse of poker on that account. And no one should think any the worse of the game of business because its standards of right and wrong differ from the prevailing traditions of morality in our society."

—Albert Z. Carr in *Harvard Business Review*

## A CONSERVATIVE POPULATION EXPLOSION

June 9, 1971.

Mr. William J. Connell, Co-ordinator  
Conservation Council of New Brunswick  
Fredericton, N.B.

Dear Mr. Connell:

Thank you very much for your letter with regard to the problem of overpopulation.

It is my belief that we in Canada have not yet reached the stage where there is any need for government regulations imposing limits on the size of families or other such arbitrary measures to control our population. The government has recently embarked on a program of research and education in birth control and I believe that this kind of voluntary program is useful.

In terms of the potential of our economy, there is certainly room for more people in Canada. Per capita, I would think, that Canada is one of the world's largest consumers of material goods and resources. What is important to the preservation of our environment, I think, is our ability to control the pollution which results from such production and consumption.

Yours sincerely,

Robert L. Stanfield

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