

INSTITUTE OF CURRENT WORLD AFFAIRS

WGM-11
"The Middle North" at Wingspread

Åkandevvej 7
Lille Værlose
Denmark
6 June 1966

Mr. Richard H. Nolte
Executive Director
Institute of Current World Affairs
366 Madison Avenue
New York, New York 10017

Dear Dick,

As I went over my rough notes to review what was said at the Middle North Symposium at Johnson Foundation's "Wingspread" in April, I got the distinct feeling that the meeting was a monumental one and the results promising. Why? In abbreviated form my impressions of the symposium are that it:

1. recognized an area of promise and problems, with a head-on attempt to decide the best method of attack;
2. was sponsored by a going concern in northern research (Arctic Institute of North America), with coordinated support from the Johnson Foundation, Institute of Current World Affairs, and the Ford Foundation;
3. placed main weight on man;
4. steered a realistic course;
5. recognized possible future technological advances and their potential significance;
6. brought out old vs. new thoughts on settlement-- its form, extent, and future.

Although you asked Dave Judd and me to act as rappoteurs for the symposium, this letter will be mere a record of personal impressions than a formal report and, therefore, cannot pretend completeness nor does it attempt to give each participant's thoughts. It is a distillate, and a subjective one at that.

I listed several reasons why I thought the meeting was a success. This does not mean that any northern problems were solved, but rather that some of the current problems were put in the limelight. A few traditional views were questioned and the current and future jobs at hand made clear. In short, we need planning, people, and international participation and cooperation. The area has been defined, albeit somewhat hazily in parts. As Professor Scott said: the conference moved from the undefinable to the unanswerable. I believe the problems of the area will remain unanswerable until we abandon our traditional ideas on settlement and take a realistic view of development in the modern world and how the Middle North can fit into this development.

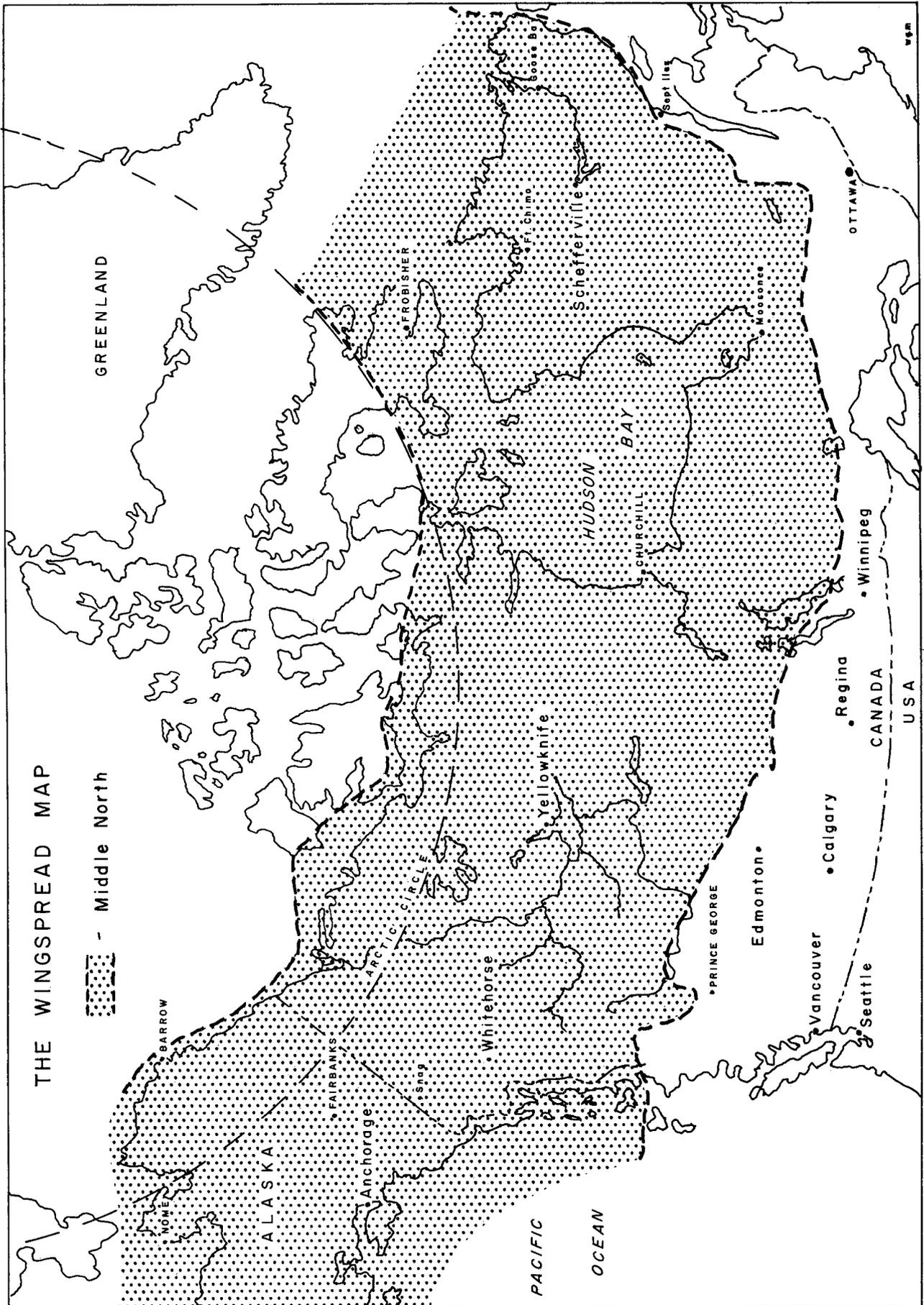
In this regard, I find it particularly to the point that the Johnson Foundation concerns itself with improvement of the human environment and breakthroughs in human understanding. Perhaps long-standing misconceptions about the North need to be modified somewhat before its potentialities are fully realized.

Where is the Middle North?

I was glad that the symposium did not spend a lot of time quibbling about the definition of the area. There were, however, some hazy points, especially when one attempts to reconcile the area as defined ("those northern regions, lying between the present northern limits of extensive settlement and the hard Arctic") with the map presented at Wingspread. The Wingspread map with Middle North boundaries marked in is shown in simplified form on page 3. The Middle North areas outside North America were not mapped. So, defining the whole area is a first-order consideration if we are to discuss at length the potentialities and plans for development of the Middle North.

Several other reasons as well compel me to take up the definition of the area in more detail here. The first is an almost total exclusion of marine areas of the Middle North in the discussions. Not only are the marine areas of great significance but they may prove to be more important than land areas of the Middle North in the future; their inclusion in our definition of the Middle North changes the general outline of the area. Secondly, I must point out that although many land areas have high arctic climates, the sub-arctic seas bordering some of them may change radically the type of economic development possible, and we may therefore justifiably place such areas in our Middle North.

If the definition is accepted that the Middle North lies north of integrated settlement and south of the Arctic, its borders can be sketched in roughly as tree-line to the north and the "railway belt" to the south. A similar "railway belt" line cannot, however, be drawn for Scandinavia without difficulty. Taking tree-line as our northern limit (and without consideration of sub-arctic marine areas), Greenland, Iceland, Svalbard (Spitsbergen), all the Canadian northern islands and a vast area west of Hudson Bay would lie outside our consideration. But, as stated above, I feel that some modifications of this idea must be made if we are to take into consideration the marine environment. As seen on the page opposite, the map at the symposium included as Middle North all of Alaska, mainland Canada and then finished off by running along the Arctic Circle eastwards from Melville Peninsula. Thus was included that portion of the Arctic usually known as "low Arctic". If this idea is further extended to the Soviet Union, it would encompass virtually the entire northern part of the country to the shores of the Arctic Ocean. Left above the Middle North, therefore, would be the northern parts of the Canadian islands and the Queen Elizabeth group, plus Svalbard (Spitsbergen) and part of Greenland. Middle North would then not be "middle" to anything and would lose the important idea of a frontier area contiguous with the intensely settled agricultural areas immediately to the south. I would therefore propose cutting out the low-Arctic portion so that the Middle North, at least in this



discussion, is mainly sub-Arctic. It was after all the idea that hard science jumped over a large area in opening up research in the Arctic 20 years ago that brought out the importance of the Middle North.

Although dwelling at length on the Middle North's location might seem too academic, I feel it is important to at least define the area sufficiently so that we know just what we are talking about in the future. Such a definition also eliminates much talk which rightly belongs to the Arctic proper: ice islands, submarines and the Arctic Basin, and oil in the northern Canadian islands, for example.

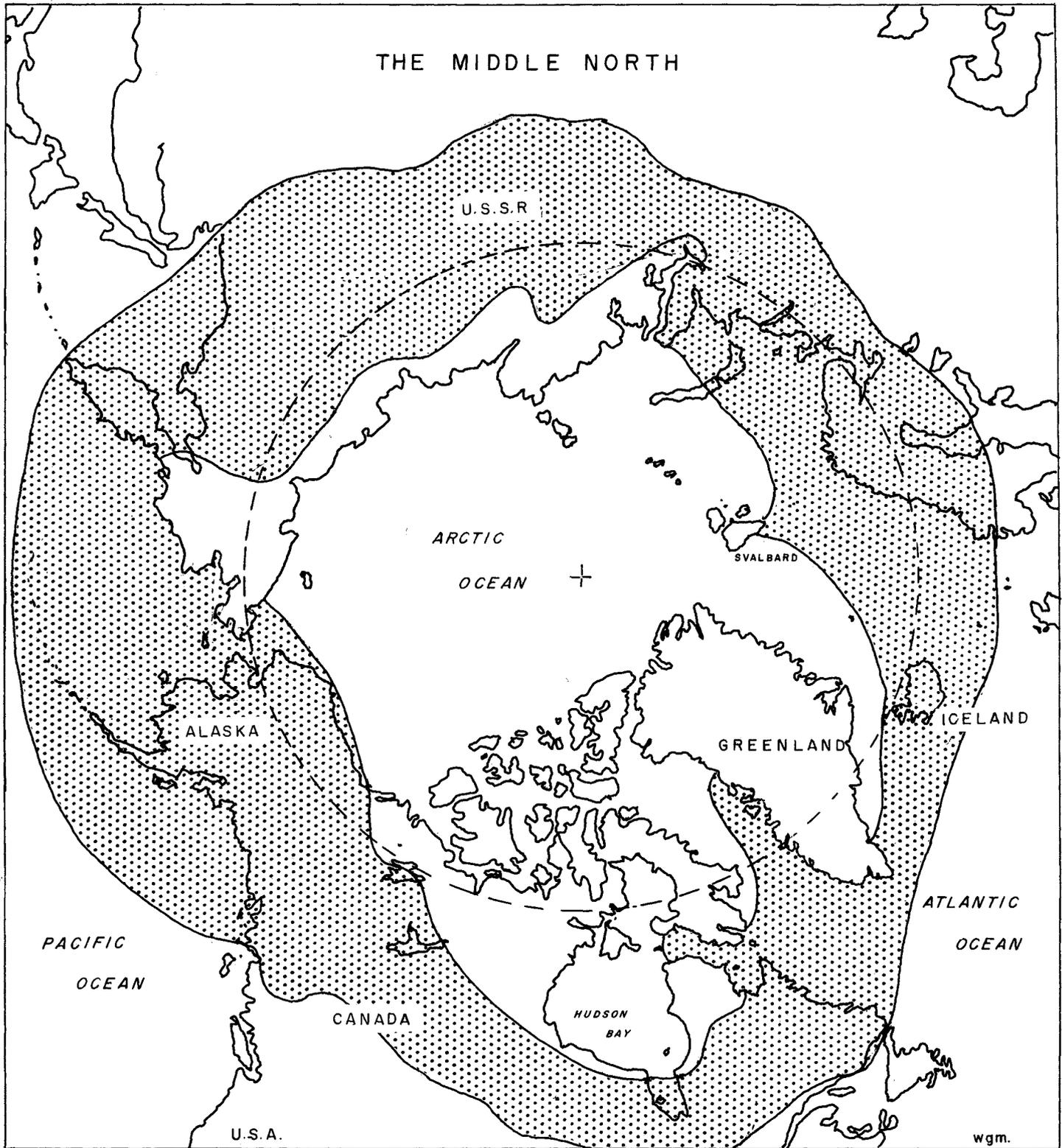
The sub-Arctic seas and how they fit into our Middle North demand a bit more attention. In most discussions of the Arctic and sub-Arctic, the land areas get most of our attention, with the seas and their resources getting short shrift. If we incorporate in our thinking the sub-Arctic portions of the seas and the shores they wash, we include in our Middle North areas which would be otherwise, by definition, excluded, i.e., the west coast of Greenland, Iceland, SW Svalbard, and the northern coast of USSR as far as the Yamal Peninsula. Also included would be parts of the Chuckchi Sea and the north coast of Alaska and NE Siberia.

With these modifications our definition of the Middle North then emerges as that area north of intensive settlement and south of the true Arctic, but including portions of sub-Arctic seas and their shores. A concept including low-Arctic regions is too all encompassing, but one with only sub-Arctic land areas is too limiting in that it excludes Greenland and other important regions.

The map on page 5 shows in small scale the Middle North according to the above discussion. The southern boundary in Scandinavia is difficult, but I have drawn a line connecting points north of Oslo, Stockholm, and Helsinki rapidly and with eyes partially closed. The USSR receives almost as rapid treatment leaving the task to be better completed by Terence Armstrong, Trevor Lloyd, or Dave Judd. I have tried, though, to map the entire Middle North which must be done as a starting point for discussion. Otherwise, if we do not define before we talk, the talk goes astray and red herrings of Arctic development creep in and fog the issue.

Middle North around the World

Greenland is inhabited by some 35,000 Greenlanders and Danes with 10% of this population in two districts of the east coast and the remainder settled along the west coast as far north as 72°N. There is also a small outlying population in the Thule district to the northwest. All of Greenland's land climate is arctic, except for a small area in the extreme southwest and at the heads of fjords in the same area. The island is separated from the rest of Denmark by a large stretch of the North Atlantic Ocean and might therefore be considered as quite different from other Middle North regions which are connected directly with populated areas to the south. Greenland has always been sea-oriented and the present economy is based on a fishing industry resulting from favorable



conditions of sub-Arctic water found along the west coast. The development in Greenland, as emphasized by Director Brun, is particularly relevant to other areas of the Middle North. Because of its remote location, Greenland now boasts a highly-developed sea transport system both internal and between the island and Denmark. Cryolite, now exhausted, has played a large role in past development and other minerals will presumably do so in the future. Although unbalanced, the economy of Greenland today rests on a growing fishing industry supplying modern freezing plants along the west coast. The close cooperation between applied science in marine biology and the fishing industry is evident, as is the development of local administration to take care of many tasks in running the island.

Iceland has been included in my Middle North because its whole history of development has been both northern and marginal. Although many will say that Iceland has integrated settlement, other than Reykjavik the population and its trends are perhaps typical of other Middle North areas. And Iceland's whole export economy is based upon fishing in the mixing zones of sub-Arctic waters near its coasts and in other Middle North sea areas.

Svalbard (which is the correct name for this archipelago, the main island of which is Vest Spitsbergen) enters our discussion on fragile footing, but I think we must here recognize the effect which warming sub-Arctic waters have played in transportation and economic development in this area. Svalbard itself is for the most part high Arctic, but certainly the approaches to the islands are not and it is in this shallow sea area between North Norway and Svalbard that great significance lies today. Including Svalbard and its sea approaches in our discussion brings in interesting problems of continental shelf utilization and sovereignty. Svalbard itself is a good example of an area under a nation's sovereignty by way of international treaty.

Fenne-Scandinavia must be included under one heading, for it is foolish to separate the planned northern efforts of Norway, Sweden, and Finland. The North Norway Plan and its expanded successor The Districts' Development Fund (Distriktenes Utbyggingsfond) in Norway should be followed closely for they represent the effective way in which coordinated development can take place vis-a-vis the sporadic forays into the Middle North which has characterized the efforts in North America. Finland just received a new regional planning law after preparations since 1959. This must also be watched and, with experience in the more developed plan in Sweden, be common knowledge to private and governmental groups in other areas.

Soviet Union and her Middle North were outlined well by Terence Armstrong and will also be studied in the future by Dave Judd. Despite different economic systems, much can be learned of Russian methods in developing her Middle North. The very size of Russia's Middle North and the fact that it is a going concern underscore our need to become better informed on this part of the North despite shortage of data. There are, according to Terence Armstrong, about 5,000,000 people in the Soviet Middle North. Fur ranching, local hydrofoil transport, mineral exploitation, fisheries, and the food industry in domesticated reindeer (2½ million animals) should be studied closely along with Soviet experience with

wages, turn-over problems, construction and permafrost. But first their Middle North must be open for exchange visits.

Alaska is our own Middle North and, in a distorted sense, our last frontier. In a sense we are in Denmark's position by not having direct physical connections with our Middle North and some of the developmental problems are indeed similar. Alaska is typical of an area which can be looked to for either exploitation or development; a case area and, as Greenland, a self-contained unit where the demand for research will increase as the demand for resources increases. George Rogers made a good case for Alaska as being a place for coordination of research in geography, as well as a model area for population studies which might be of use in other parts of the world.

Canada, with a well-defined Middle North, seems to have other more pressing problems at the moment and, as with Alaska, suffers from the relatively recent closing of her western frontier. Unlike Scandinavia, where the north has been the only frontier for centuries, Canada's turn northwards is still in its youth and plagued by all the features of that time of life. Some prevalent misconceptions of the North were well stated by using the Yukon Territories as an example. In some ways, Canada has most to gain by the experience of the rest of the Middle North.

The countries having a Middle North are therefore Denmark, Iceland, Norway, Sweden, Finland, the Soviet Union, United States, and Canada--most of which were represented at Wingspread. The Middle North is international in extent. Its development can acquire more of an international flavor by exchanges, language specialization, increase of flow of information and the like. Each nation will, however, be developing its Middle North because of special requirements and policy which may not extend beyond borders.

The International Middle North

Several times during the symposium I heard references to the Antarctic Treaty and its model the Svalbard Treaty in relation to possible future developments in the Middle North. In none of the Middle North areas today are there any questions about sovereignty. If one thinks of the Arctic Basin, the sector principle, floating ice islands, etc., there is applicability, but this is Arctic not Middle North. There is, however, pertinence when looking at some of the sea areas and the continental shelves which underlie parts of them. The Soviet Union (not Canada) first made official claim to territory in the North using the sector principle. Canada, with the next largest northern lands, has also much to gain by forwarding the sector principle--the wedge-shaped boundaries along lines of longitude to the North Pole extended from recognized boundaries farther south. I believe in this regard the area between North Norway and Svalbard to be of great interest. Norway, which has never recognized the sector principle, now seems to feel (but has not publicly stated) that all waters between North Cape and Svalbard are under her sovereignty and that the whole area is part of the continental shelf of Norway--an interesting problem, especially if oil is found in Svalbard or offshore.

Middle North development has been spurred in the past by considerations of national security and defense. Even more to the point today, as military technology changes, is the changing role of the area, its adaptability to change, and its possible implications in other facets of international relations and cooperation. The notes of Trevor Lloyd in this respect are particularly striking with their examples of the compartmentality of northern development with definite longitudinal walls seeming to hinder east-west contact in the North. Some recent examples indicate that this situation is changing, especially in the much-neglected social sciences.

The potential role of the Middle North in arms control agreements or nuclear-free zones certainly is present, although who can say much about this right now? Other implications of possible Middle North contributions to the international scene were, in my mind, equally unanswerable--if not downright unpromising. Can the area support overflow population from areas farther south, or support the rising nutritional requirements of the world? Although these are international questions, they fall under the section of the future of the Middle North.

Unlike Antarctica and Svalbard at one time, there is no terra nullius within the Middle North today so that we are not in a position for international treaty arrangements. Also, as pointed out by Roger Revelle, international cooperation in Antarctica is easier because it is less important from the resource standpoint.

The Future of the Middle North

The economy of Greenland, as elsewhere in the North, is inadequate to support the population by modern standards. The more modern Greenland becomes, the less the economy will be able to support the rapidly-growing population there. Uneven "input-output" is characteristic of the North. For this reason, barring major technological breakthroughs, the Middle North as an area to accommodate increasing populations does not offer a particularly promising future.

There is, however, room enough in the Middle North. Population increase can be supported by more southerly societies (as in Greenland) with nothing hindering growth except political questions and the varying burden of maintaining modern society. On a self-supporting basis, though, the Middle North does not appear to offer much for an increasing permanent population through settlement as we traditionally view it.

Of greatest concern in our world today is the lack of protein, not minerals, power, transport, or wood. At the present time over one half of the world's population is underfed, unhealthy, poorly housed, uneducated and, in general, underprivileged. Famine is more prevalent than we realize and perhaps more closely related to economic and political unrest than we can document. One of the chief concerns when looking at the potentialities of any area is what contribution it might possibly make to the deficiency of protein in the world. If the area can be lived in, but must import foodstuffs from the outside, its importance is less

than other areas with agricultural potential. Will the Middle North be important agriculturally in the future? Everyone hopes that technological breakthroughs will enable the Middle North to make its contribution in this field, but I rather think that any breakthrough will affect more southerly areas first and most. As it stands now the Middle North cannot support the population it already has without help from southern food sources. The soil-forming processes and growth rates in the Middle North are just too slow for a sanguine outlook in the field of agriculture.

Man is essentially a tropical animal--if not tropical, then more temperate than arctic. Interior house temperatures increase as one goes north, furs and modern fabrics transport the tropical climate about people leaving their snug homes. Both heat and heavy clothing cost money; transport costs compound the liability. Construction and maintenance problems are greater in the North than elsewhere and, again, transportation cost raises its ugly head as in almost every sphere of northern living. No, population pressures will probably not cause people to move into the Middle North in great numbers, but the area will be important in supplying ever-increasing masses of raw materials.

Everyone seems to agree that mining is the one big future of the Middle North. It certainly is the one main feature of the present, but in a 1958 Symposium on the Potentialities of the Canadian Northwest¹, Mr. D. B. Turner gave the area one hundred years before the non-renewable resources were used up.² If this is the case, we should start thinking about the role of the Middle North minus its chief contribution of today.

One of the most fascinating ideas to emerge from the symposium was the possibility that the Middle North might be used as a mirror of what is happening in other parts of the world--a case area which represents an extension of our political and economic systems into a harsh environment. A study in this environment might reveal more about what our systems are really like; variables are possibly reduced, everything is in smaller scale, less clouded over by irrelevant detail. Population trends might be a good example of such study possibilities. Perhaps one will be able to look at a developing society on the narrower canvas of the Middle North and come up with some valuable ideas applicable in other parts of the world.

It probably came as a surprise to many participants of the symposium that the population of native peoples of the North is growing at an alarmingly high rate.

Taking Greenland as an example (and the Canadian Eskimo population shows an even higher rate, but out of our area), the present rate of natural population increase is 3.5%. Admittedly, it is possible to play all sorts of games with statistics. Nevertheless, the doubling time for a growth rate of 3.5% is about 20 years. Taking a population of native

1. the northern prairie provinces, B.C., Yukon T., and NWT west of Hudson Bay.

2. in Underhill, F.H. (ed.) 1959. The Canadian Northwest: its Potentialities. Toronto: Univ. of Toronto Press p. 71-89

Greenlanders in 1965 as ca. 35,000, this means that the population will be 70,000 in 1985 and 1,120,000 in 100 years! This assumes, of course, a constant growth rate of 3.5%. In absolute figures, the population of the Middle North is miniscule. But the course of development in this area of weak economic base and violent population growth will be interesting to watch, and what is learned may well be applicable elsewhere in the world.

The native peoples of the Middle North, although growing rapidly in number, will probably not have much voice in how things develop in their land. At the symposium, Greenland was presented as the place where the native people have had a voice in development. In relative terms, Greenlanders have had more voice in their own affairs than other natives in the North. Certainly in educational, cultural, church affairs and local administration, native Greenlanders have long had a strong voice in the course of development. Since 1953, Greenland has sent two representatives to the Danish Parliament and the Greenlanders' own council (Landsråd) must each year work through long agenda of matters of interest to Greenlandic development. It remains, however, that the big decisions are made in Copenhagen, especially regarding the key matter: economic development. There is little doubt that such a situation will continue. Southern influence will also characterize development in the rest of the Middle North.

So, although the admonition to "include the native people" is perhaps good advice, future development in the Middle North will probably not take much notice of the voice crying in the wilderness.

Some Indian children are now attending the local schools at Schefferville, Quebec under government sponsorship. This is an encouraging sign, but one must ask: "What are these children being educated for?" What future have natives in areas where rapid in-and-out exploitation is the way of economic development? Are they to return to fur trapping once the menial wage employment days are over? Do they have a place as part of any future renewable resource program? Can a job, a home, and a place in the sun of our modern world be found for them when changing conditions rob them of a livelihood they have grown dependent upon? There is no good arguing about the happier and more satisfying life once led by Stone Age Eskimo, the free and uncomplicated life of our Indian populations. The Stone Age, at least for now, has passed and we had better face up to that fact and take upon ourselves a little responsibility in aiding these people whose culture we have submerged in our own "civilization". There are no pure-blooded Eskimo or Indians left to us. They and their cultures are now a part of the nuclear age; the faster we prepare them a place and give them a chance to make their contribution the better.

If the first big future of the Middle North lies in mineral exploitation with a limited period of use, what about the second role-- that of an area for tourism and recreation? Some parts of the Middle North will be important in this regard as leisure time increases, travel is cheaper and more rapid and other areas in the south are overrun. Trips into the bush or to a lake resort will hardly be everyone's cup of

tea, however. One has only to experience a few days of the black fly plague (with the less bothersome mosquito and other flies) to discover that the romance of the north woods is perhaps overdone a bit in the adventure and travel books. Stefansson was correct in suggesting the underestimated role insects play in hindering northern development. They are certainly something one forgets about rather quickly, and I haven't thought much about them except when writing these lines, but the black fly is still there--waiting.

The foregoing lines exude some pessimism about the Middle North's future. It is easy to be too optimistic and too pessimistic; getting realistic answers is the bind. But why are we talking about northern development? Is it not because the north is undeveloped? And why is this so? Perhaps the combination of many factors has reduced the matter to a single economic question--supply, demand, and costs.

In relation to the relatively short time that mineral exploitation will characterize development of the Middle North, should we not adopt Dr. McTaggart-Cowan's suggestion and determine our short-term and long-term objectives and see if they are convergent or divergent? Into the discussion, then, enter two extremely important points: resource mapping and planning.

The subject of resource mapping in the north seems to be plagued by the full spectrum of ideas which run from the feeling that we know just about everything which has or will be found there to the phrase "we just don't know enough about it". The former thought creeps through with irritating regularity, as evidenced by a statement in "The Arctic Frontier", which I browsed through at Wingspread: (p. 39) "Since Greenland has undergone a relatively thorough geological survey there is little likelihood of new mining activities." I hear chortles and gasps from geologists doing the Greenland work. As I write these lines the Copenhagen newspapers are describing a find of chromium ore (100 million tons) recently discovered near Fiskenas, on the west coast. Thus the actual state of knowledge of the north today is at times fogged in a way which puts a real damper on developmental thinking.

We do, of course, know a great deal about the Middle North. We are probably not fully applying what we do know for some reason--political or economic. Biologists have shown us the general picture of annual stocks, growth rates, etc., of many animals. The growth rate of northern fish, for example, is slower than southern species. Lakes are therefore fished out more easily--but where is the legislation which will assure rational, sustained yield rather than the crass exploitation now characterizing northern tourism in fishing? Since the renewable resources of fish, wood, water, and use of bog and marsh land are the big and lasting future of the Middle North, we must modify and not apply directly our southern traditions of development.

Because the world's population is growing at a rate of over 30 millions a year, all marginal lands will at some time be called into service in some way. The Middle North's role is now uncertain but

the best chances seem to be as a continued source of raw materials and as an area for recreation and tourism. Increased governmental responsibility in planning against sporadic private ventures seems to be called for. The big point now is that the Middle North is being talked about. It needs this, and it also needs the close scrutiny of future research and the support and patience of the pessimists and the optimists. Wingspread provided a sumptuous beginning of this process with food for both mind and body--a symposium in the true sense of the word.

Sincerely,



W. G. Mattox

Received in New York August 24, 1966.